

COURSE DESCRIPTIONS

Course Credit

Academic credit is awarded for successful completion of coursework. The University of Maine at Machias defines one credit as a minimum of 15 hours of course instruction time together with a minimum of 30 hours of student individual or group study. While the total amount of time spent by the student in learning activities should therefore be a minimum of 45 hours or more per credit, the proportion of instructional time to individual/group study may vary in certain courses (e.g., asynchronous components, laboratory components, performance and studio sessions, internship and practica, independent studies, etc.). "Instruction time" refers to interaction and communication among instructors and students, including any assessments (e.g., tests, presentations). Credit, credit hours and semester hours of credit are synonymous terms. Catalog references to credit are abbreviated as "Cr."

ACC 201 Financial Accounting

The fundamental principles of accounting as they relate to sole proprietorships. Emphasis is given to developing the technical procedures of journalizing, posting, adjusting entries, closing the books and preparing the financial statements. In addition, students are introduced to notes, inventory, depreciation, controls and payroll. Competency and/or concurrent enrollment in basic reading, writing, and mathematics courses are a prerequisite for all business studies offerings with a prefix of ACC, BUS, MAN, and MAR. 3 Cr

ACC 202 Managerial Accounting

Covers techniques accountants use to help management plan and control business operations. Topics include accounting for manufacturing costs, budgeting and performance reporting, cost-volume-profit analysis, differential analysis, the computation of financial ratios, and the comparison of cash flow with net income. Prerequisite: ACC 201. 3 Cr

ACC 212 Principles of Financial Accounting II

In this course, students encounter and are exposed to various topics in accounting for fixed and intangible assets; corporate organization, capital stock transactions and dividends; corporate income and taxes, stockholders' equity and investments in stocks; bonds payable and investments in bonds; cash flows;

depreciation; financial statement analysis; alternative methods of recording deferrals, and lastly, partnerships. Prerequisite: ACC 201 3 Cr

ACC 301 Intermediate Accounting I

Covers techniques accountants use to measure and communicate general purpose financial information to all interested parties in a manner that complies with generally accepted accounting principles. Topics include income statements, balance sheets, cash, receivables, inventories, and non-current assets. Prerequisite: ACC 201. 3 Cr

ACC 311 Individual Income Tax

Covers federal income tax legislation that applies to individual income taxpayers. Topics include the individual income tax formula, income inclusions and exclusions, ordinary income, capital gains and losses, active and passive income, deductions, and tax credits. Students learn to prepare individual income tax returns. Prerequisite: ACC 201 or permission of instructor. 3 Cr

ACC 314 QuickBooks Accounting for Entrepreneurs

QuickBooks Accounting for Entrepreneurs will introduce students to QuickBooks accounting software. Students will become familiar with maintaining accounting records and preparing summary financial reports using QuickBooks. The course is also intended to help students learn or review fundamental accounting concepts and principles, enable students to review financial statements from a user perspective, provide students with a means to investigate the underlying source documents that generate most accounting information, and offer students the chance to explore some managerial aspects of accounting by performing financial analyses and comparisons. Prerequisite: Junior standing or permission of instructor. 3 Cr

AME 330 Topics in American Studies

This course applies the subject and methods of American Studies (introduced in AME 220) to the exploration of a single-semester topic or theme - such as conspiracy theories, urban legends, the Fifties, or cyberspace. Students learn how American Studies takes its own form of interdisciplinary inquiry, one whose multiple perspectives enrich an understanding of society and culture in America. Prerequisite: ENG 101, AME 220 or permission of instructor. 3 Cr

ANT 101 Cultural Anthropology

A comparative study of contemporary cultures and institutions with particular attention to primitive and

peasant societies. Emphasized are such topics as human evolution and race; pre-scientific writings and ethnology; the concept of culture; language and perception; economics and technology; marriage, the family and kinship; associations, castes and classes; political organization and warfare; religion and magic; folklore and the arts; culture and personality; American culture; cross-cultural contact; and cultural change. 3 Cr

ANT 212 Environmental Anthropology

The field of environmental anthropology explores human-environment relations around the globe and from prehistory to the present. It also strives to understand environmental issues and knowledge, not only from a Western scientific point of view, but also from the perspectives of people from other cultural backgrounds. In this class, students will survey the field of environmental anthropology and apply its method and theory to a problem where they live. Prerequisite: ANT 101 or SOC 114, or permission of instructor. 3 Cr

ANT 215 Special Topics in Applied Anthropology

Course designed to allow students to pursue study in an area within Applied Anthropology. Courses vary in content in response to student interest and demand. Prerequisite: Dependent upon course offered, or permission of instructor. 3 Cr

ANT 313 Political Ecology

The field of political ecology examines and attempts to explain the political dimensions of human-environment relations. This course introduces the field, its history, methods, and perspectives, and applies its principles and perspectives to understanding, managing and resolving real-world, environment-related problems. Students conduct a research project on an issue pertinent to Downeast Maine such as wild salmon restoration, climate change adaptation or land use management. They analyze the topic, applying perspectives and analytical methods of political ecology, and develop recommendations that take into account a range of environmental and social dimensions. Prerequisite: ANT 101 or ELA 112, or permission of instructor. 3 Cr

ANT 315 Special Topics in Applied Anthropology

Course designed to allow students to pursue study in an area within Applied Anthropology. Courses vary in content in response to student interest and demand. Prerequisite: Dependent upon course offered, or permission of instructor. 3 Cr

ANT 330 Sociocultural Models

An examination of contemporary theoretical explanations of behavior: how do various models shape the formulation of questions about behavior and the resultant answers. Theoretical explanations may include, but not be limited to structural, conflict, interactionist, and evolutionary models. Prerequisite: ANT 101 Introduction to Anthropology and two of the following three courses: PSY 110 Introduction to Psychology, SOC 114 Introduction to Sociology, MAT 113 Intro to Statistics. 3 Cr

ANT 414 Field Project

Intended solely for students enrolled in the Cultural Anthropology minor, the course awards credit for a substantial fieldwork project developed by the student and completed in conjunction with any other 300 or 400-level course. Institutional Review Board (IRB) clearances, if necessary, must be obtained prior to the start of the semester in which the course is taken. Prerequisite: ANT 330 and prior arrangement with the supervising faculty member. 1 Cr

ANT 415 Special Topics in Applied Anthropology

Course designed to allow students to pursue study in an area within Applied Anthropology. Courses vary in content in response to student interest and demand. Prerequisite: Dependent upon course offered, or permission of instructor. 3 Cr

ART 101 2-D Fundamentals of Art

An introductory-level course in which students learn the elements and principles of two-dimensional design through hands-on studio practice. Class meetings include drawing, painting, and mixed media, as well as lectures and discussions on related topics. Such topics may include non-Western art, aesthetics, and historical and modern art. This course partially satisfies the University Core requirement in fine arts and is a prerequisite to all other studio art offerings. 3 Cr

ART 102 Art Fundamentals: 3-D

An introductory course in which students learn the elements and principles of three-dimensional design through hands-on studio practice. Class meetings include drawing, sculpture, and mixed media as well as lectures and discussions on related topics. Such topics may include non-Western art, architecture, and historical and modern art. This course partially satisfies the University Core requirement in fine arts and is a prerequisite to all other studio art offerings. 3 Cr

ART 201 Art History I

A global survey of the visual arts from prehistory until 1400 C.E. This course includes lectures and discussions of the art and life of people across many cultures around the world and across a wide spectrum of history. Prerequisite: ENG 101 or permission of instructor. 3 Cr

ART 202 Art History II

A global survey of the visual arts since 1400 C.E. This course includes lectures and discussions of the art and life of people across many cultures around the world and across a wide spectrum of history. Prerequisite: ENG 101 or permission of instructor. 3 Cr

ART 210 Drawing I

The introductory course in studio drawing. Students are taught the basic concepts and techniques of drawing in studio sessions using still life, land/seascape, and the model. Emphasis is on gaining facility in rendering and visualizing from life. Prerequisite: ART 101, ART 102, or permission of instructor. 3 Cr

ART 211 Painting I

The introductory course in painting. Students learn the fundamental processes of opaque and/or transparent painting media through intensive studio practice, lecture and demonstration. Prerequisite: ART 101, ART 102, or permission of instructor. 3 Cr

ART 212 Illustration

This studio course will study the making of images for printed media, including books and advertising print formats. Topics include page design, image and typographic integration and visual interpretation of text. Specific studio media include painted and drawn images for reproduction, digital image making, traditional printmaking media processes of relief, intaglio and silk screen and pulp painting. The course will also include a critical analysis of contemporary and historical illustrations. Prerequisite: ART 101 or permission of instructor. 3 Cr

ART 213 Graphic Design I

The study of design elements as employed in a two-dimensional system, whether print or electronic. Students will explore how information is read through the arrangement of various elements, including shapes, color, symbols and typography. They will create their own designs using available software and contribute to online discussions.

Prerequisite: ART 101, or permission of instructor. 3 Cr

ART 214 Special Topics in Art

Special lecture, studio, travel and workshop experiences in the visual arts. Recent topics offerings include Book Arts, Landscape Watercolor, Digital Design, and Life as Art: UMM student trip to Italy. In the BAIFA program, these courses may be used as visual art electives and repeated for credit. Prerequisite: ART 101, ART 102, or permission of instructor. 1 - 3 Cr

ART 216 Book Arts I

This studio course will concentrate on the study of the book as a medium for the expression of the written word. Topics covered in this course include the cultural and historical development of the book artifact, its materials and methods of production, the aesthetic integration of topography, text, page, paper and image; printing and methods of book production, and binding structures. Letterpress printing will be introduced. Books will be editioned in small numbers as prototypes of learning the techniques of production. Prerequisite: ART 101 or ART 102 or permission of instructor. 3 Cr

ART 217 Papermaking I

This studio course will explore making paper by hand as a component for the making of edition of paper and images critical for the making of books. In addition to the exploration of the cooking, beating, and sheet forming of fiber into paper, students will learn about the history of papermaking, the materials used in the history of writing and printing, and the aesthetics of material usage as it pertains to interpreting a specific written text or visual image. The course will also involve a critical analysis of works of art and books using handmade paper and a comparative study of paper made from assorted fibers, historical and modern. Prerequisite: ART 101 or ART 102 or permission of instructor. 3 Cr

ART 218 Printmaking

An introduction to the materials and techniques of fine art print production. Woodcut, linocut, etching, engraving and lithography are some of the processes explored. Class sessions consist of studio work, demonstration, lecture, and group and individual critiques. Prerequisite: ART 101, ART 102, or permission of instructor. 3 Cr

ART 219 Photography

A studio course designed to acquaint the student with the process of visual exploration using a camera. The student learns the basics of camera use and computer

post processing while exploring a range of applications including documentary and fine art photography. The history of the medium and a look at various photographers will build vocabulary that can be applied to independent work. Prerequisite: ART 101, ART 102, or permission of instructor. 3 Cr

ART 310 Drawing II

The basic concepts and techniques of drawing are reintroduced through studio sessions. Students draw with a variety of media from life and from conceptual/creative models. Emphasis in this more advanced class is on the development of facility, style and self-expression. May be repeated for credit. Prerequisite: ART 210 or permission of instructor. 3 Cr

ART 311 Painting II

Designed for students who are experienced painters. Through intensive studio practice, students develop their facility with selected opaque and/or transparent media. Emphasis is on the development of an individual vision. May be repeated for credit. Prerequisite: ART 211 or permission of instructor. 3 Cr

ART 313 Photography II

Advanced development of students' photographic skills and understanding. The course explores a variety of equipment, materials and techniques. Students develop an awareness of many variables important to advanced work in photography. Simultaneously, they develop a new awareness of the image and of themselves as image makers. Prerequisite: ART 219 or permission of instructor. 3 Cr

ART 320 Life Drawing

An introduction to rendering the human figure. Students learn how to draw the human figure in action and repose through intensive studio practice. The structure and function of the human skeleton and musculature is taught through lecture, demonstration and discussion. May be repeated for credit. Prerequisite: ART 101 or ART 102, and sophomore standing, or permission of instructor. 3 Cr

ART 322 Book Design & Publishing

An intermediate course where students learn the principles of book design and apply these to the production of a critical edition for the UMM Press. Students leave the course with hands-on experience in publishing involving cover layout, interior design, printing and binding. This course encompasses traditional as well as emerging forms of book

production. Working collaboratively, students will work to produce a single critical edition for the Library of Early Maine Literature, an imprint of the UMM Press. Students successfully completing this course will have their names listed in the publication credits for the published edition. Prerequisite: ART 216 or permission of instructor. 3 Cr

ART 326 Book Arts II

This studio course will continue the study of Book Arts I using the book as a medium for the expression of the written word. The aesthetic integration of typography, text, page, paper and image through letterpress printing and other advanced printing and binding techniques will be explored. A copyrighted book project will be editioned beyond the prototype stage and marketed. May be repeated for credit. Prerequisite: ART 216 or permission of instructor. 3 Cr

ART 327 Papermaking II

This studio course will continue the study of Papermaking I, advancing the techniques of cooking, beating, sheet forming, watermarking, pulp painting techniques and making components for book editions. Students will study selected topics in the history of papermaking and the materials used in the history of writing and printing. Students will also critically assess contemporary and historical works as they relate to their own particular portfolio project. Prerequisite: ART 217, or permission of instructor. 3 Cr

ART 421 Advanced Art Projects

Designed to allow students to explore intensively their own areas of specialization in both subject and technique. While the course emphasizes individual work, collaborative approaches are also put into practice. May be repeated for credit. Prerequisite: ART 101 or ART 102, ART 210, and two upper-level art courses; or permission of instructor. 3 Cr

ART 452 Book Arts Certificate Capstone Project

This directed study capstone course is structured to bring together a variety of experiences from the Book Arts Certificate program and give form to them in the making of a final project. This may include presenting experimental and/or conventional approaches to book making through the exhibit of individual works or by publishing a book edition. A critical essay of historical and contemporary work, as well as a structure of the project's conceptual progression, will frame the thesis of this project. Prerequisite: ART 216, ART 214, ART 217 and two courses from ENG 242, ART 212, ART 210, ART 219 and ART 214 Graphic Design. 3 Cr

ASL 101 Intro to Sign Language

Provides the student with an overview of American Sign Language (ASL), signed English, and communication through gesture. Students develop an understanding of the history of ASL and learn to communicate through expressive and receptive ASL. The course is taught through practice, small-group work, presentations and as little spoken word as possible. 3 Cr

ASL 102 Intermediate Sign Language

Following the Introduction to Sign Language, this course serves as the second half of the sign language sequence. The intermediate-level course utilizes the immersion-style teaching method. A silent classroom where signed ASL will be the only form of communication will be maintained for the duration of the course. Prerequisite: ASL 101 or permission of the instructor. 3 Cr

BCS 460 Senior Project/Capstone Experience

This course is the capstone experience for a student in the BCS program. It can take the form of a portfolio, a research project or some other equivalent experience. It is intended to be the method through which the student clearly demonstrates the linkage between their objectives and the academic work in their self-designed concentration. It is expected to be a culminating, integrative experience. The student presents their work to the appropriate campus audience. 3 Cr

BEH 450 Senior Project

An opportunity for students to apply and expand what they have learned in the Psychology & Community Studies program by pursuing local problems and issues. In this culminating service learning/community engagement course, students will work with a community partner to design and implement an independent research project or develop and run a program that serves the community partner's needs. Independent inquiry and formal presentations to the class are important components of this course for both peers and the community. This course includes a Service-Learning and Community Engaged (SL/CE) component. Prerequisite: Senior standing and SSC 320. 3 Cr

BIO 100 Explorations in Biology

This course is designed for beginning Biology majors (but is appropriate for all students), and attempts to introduce students to some of the content areas within the discipline of Biology through investigations focused on a particular Maine organism. This course will also serve as a "First-Year Experience." Students will work closely with faculty on a research

project, learning concepts and protocols in biology and at the same time developing academic skills that will contribute to their continued success at UMM. 1 - 2 Cr

BIO 106 Topics in Women's Health

An introduction to the many aspects of women's health. Topics covered include reproductive system anatomy, physiology of the menstrual cycle, breast cancer, gynecological cancers, HIV/AIDS and other STDs, menopause, etc. Course content emphasizes both normal and abnormal conditions including symptoms, treatment options, and long-term effects as well as prevention. This course is designed for the general student of all ages, and for men as well as women. It also is a useful introduction to the subject for students preparing for careers in the healthcare profession. 3 Cr

BIO 108 Introduction to Human Nutrition

This course provides an introduction to the nutrients necessary for humans to live and thrive and the basic mechanisms by which they act. The course will pay particular attention to the links between food and health and disease. It will also include information on alcohol, energy balance and metabolism, disorders of metabolism or energy balance, and nutritional deficiencies. As time permits, the course will cover special stages of life (pregnancy, infancy, childhood or aging), and herbal and nutritional supplements. The goal is to obtain an educated groundwork for understanding the body processes of nutrients and their application to everyday disease states. Topical articles will be presented at a level that mirrors and develops basic scientific literacy for the educated layperson. 3 Cr

BIO 109 Special Topics in Biology

A course whose subject matter may come from any of a variety of topics in Biology. This course may be repeated for credit with different topics or at different levels. A lab may be included as part of the course. 1 - 4 Cr

BIO 110 Human Anatomy & Physiology I

This course studies the workings of the human body. The primary objective is to gain an understanding of how the healthy human body works. Class discussion and investigations focus on the form and function of individual body systems and their integration into the living organism. Comparisons will be made between the healthy body and disease states. The first semester in a two-semester sequence will cover the general structure of the human body, cells, tissues, the integument, skeletal, muscular,

nervous and endocrine systems. Lecture 3 hours, laboratory 2 hours. 4 Cr

BIO 114 Careers in Fisheries & Wildlife Biology

Successful entry into a career in fisheries or wildlife management usually requires early experience and mentoring by professionals in the discipline. The course will be a lecture and discussion series, presented by guest lecturers from state, federal, tribal and private organizations that manage fishery or wildlife resources. These sessions will emphasize the professional development of the presenters, the work routine and opportunities to get first-hand experience. 2 Cr

BIO 117 This is Life!

This introductory course in general biology for both majors and non-majors is organized around the characteristics of life. Topics covered include cellularity, homeostasis, growth, development, reproduction, genetics, response to stimuli, ecology and evolution. The inquiry-based laboratory provides opportunities for students to participate in hands-on investigations into these topics. Lecture 3 hours, laboratory 2 hours. 4 Cr

BIO 118 Animal Life

This introductory course focuses on organisms traditionally discussed in zoology courses including protists, invertebrate and vertebrate animals. The course will cover the evolutionary relationships among these lineages of organisms, the adaptations exhibited by members of each group to their modes of living, the reproductive strategies employed by members of each group and the role of each group in the ecosystems of which they are a part. The laboratory exercises will present a mix of inquiry-based and descriptive investigations centered around animal form and function. Lecture 3 hours, laboratory 2 hours. The course will meet for one half of the semester. Prerequisite: BIO 117. 2 Cr

BIO 119 Plant Life

This introductory course focuses on organisms traditionally discussed in botany courses, including vascular and non-vascular plants, lichens and fungi. The course will cover the evolutionary relationships among these lineages of organisms, the adaptations exhibited by members of each group to their modes of living, the reproductive strategies employed by members of each group and the role of each group in the ecosystems of which are a part. The laboratory exercises will present a mix of inquiry-based and descriptive investigations centered around plant form and function. Lecture 3 hours, laboratory 2 hours.

The course will meet for one half of the semester. Prerequisite: BIO 117. 2 Cr

BIO 206 Intro to Marine Biology

This is a survey of major marine ecosystems, including plankton, rocky intertidal, mudflat, marsh, coral reef and deep sea communities. Topics for each ecosystem include identifications, life histories, biology and ecology of dominant species. Field trips to local marine environments are used to develop identification skills, ecological techniques, experimental design, and statistical analysis of data. Students participate in toxic alga monitoring program for the Maine State Department of Marine Resources throughout the semester. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117, BIO 118, BIO 119 and ENV 103, or permission of instructor. 4 Cr

BIO 209 Special Topics in Biology

A course whose subject matter may come from any of a variety of topics in Biology. This course may be repeated for credit with different topics or at different levels. A lab may be included as part of the course. 1 - 4 Cr

BIO 211 Field and Laboratory Techniques in Biology

This course may be used to learn a variety of field and laboratory techniques. Students develop topics in consultation with the faculty member who will direct the course. Examples of topics are sampling and identification of plankton, conducting amphibian and avian surveys, laboratory techniques in genetics and immunology, horticultural methods, vegetation sampling and analysis. Prerequisites vary with topics. 1 - 2 Cr

BIO 212 Ornithology

The remarkable adaptations of birds to flight traced through the study of their biology, behavior, and ecology. Comparisons of systematic groups demonstrate the interrelationships of anatomy with ecological roles and behavior. These and other topics are elucidated through dissection and examination of specimens. Frequent field trips to practice identification of birds by visual patterns, behavior and song, culminate in a predawn bird census. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117 and BIO 118, or permission of instructor. 4 Cr

BIO 216 Mammalogy

Provides an introduction to the ecological and evolutionary contexts that led to the radiation of mammals, and a strong grounding in the physiological/reproductive strategies that

differentiate mammals from other tetrapods. Students are exposed to the common techniques used in studying mammals, including an introduction into DNA technology. The major orders of mammals is reviewed and important recent shifts in the classification are discussed. When appropriate, Maine mammals are used to illustrate concepts. Students further this emphasis through the preparation of museum-quality specimens or a research paper. Lecture 3 hours, laboratory 2 hours. Prerequisite: BIO 117 and BIO 118, or permission of instructor. 4 Cr

BIO 221 General Microbiology

A survey of the biology of microorganisms, in particular the prokaryotes. Topics include a taxonomic survey of the microbes, regulation of cellular activities, and inheritance. Investigations into the interactions between microorganisms and humans and the role of microorganisms in the environment will round out student perspectives of these minute life forms. Laboratory investigations of each topic will emphasize safe lab practice, problem solving, analysis of data, and communication of results. Lecture 3 hours, laboratory 2 hours. Prerequisite: BIO 117, or permission of instructor. 4 Cr

BIO 223 Marine Mammals & Pelagic Birds

The biology, ecology, and systematics of marine mammals and pelagic birds are studied through lectures and discussion of primary literature. During field trips students develop identification skills, censusing techniques and study of behavior of local species. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117 and BIO 118, or permission of instructor. 4 Cr

BIO 224 General Entomology

Students will be given a broad introduction to insect external and internal anatomy, physiology, evolution, taxonomy and ecology. Students will be able to identify the major insect orders and representative families on sight. They will have the skills to identify the majority of North American insects to the family level using appropriate dichotomous keys. Each student will identify, read and present the major ideas from at least two papers published in the primary literature. The course format will be a combination of lecture exams, laboratory practical exams, written and verbal presentations and the submission of properly identified and labelled insect collections. If time and student interest permit, an introduction to Arachnid identification (to the family level) will be included. Prerequisite: BIO 117 and BIO 118, or permission of instructor. 4 Cr

BIO 227 Invertebrate Zoology

This course is a survey of the great diversity of free-living and parasitic organisms without backbones. While terrestrial and aquatic groups are studied, marine organisms and their planktonic stages are emphasized. The anatomy, systematics, and biology of invertebrates are studied through lectures, collections, dissections, microscopy, and videotape. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117 and BIO 118 and sophomore standing or higher, or permission of instructor. 4 Cr

BIO 229 Plant Systematics

An introduction to the identification, classification and evolution of vascular and non-vascular plants and lichens. Topics considered include the history of taxonomy, plant life cycles, taxonomically important anatomical and morphological features of plants, classification systems, characteristics of selected plant families and methods of phylogenetic inference. Lecture and field work place approximately equal emphasis on knowledge of the local flora and recognition of important plant families. Laboratory work includes methods of specimen preparation, identification and mounting and organization maintenance of an herbarium and methods of phylogenetic inference. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117 and BIO 119, or permission of instructor. Offered fall semesters of odd-numbered years. 4 Cr

BIO 230 Human Anatomy & Physiology II

This course studies the workings of the human body. The primary objective is to gain an understanding of how the healthy human body works. Class discussion and investigations focus on the form and function of individual body systems and their integration into the living organism. Comparisons will be made between the healthy body and disease states. This second semester in a two-semester sequence will cover the homeostatic systems of the body: cardiovascular, respiratory, digestive and excretory systems. Study of reproduction, pregnancy and the immune systems will complete the understanding of the workings of the human body. Control of these systems by the nervous and endocrine systems will be emphasized. Lecture 3 hours, laboratory 2 hours. Prerequisite: BIO 110 Human Anatomy & Physiology I. 4 Cr

BIO 234 Animal Physiology

This course will focus on a comparison of the physiological strategies animals use to overcome the challenges they face. There are three broad topics: energetics (partitioning of energy between

reproduction, growth and movement), maintenance of homeostasis (temperature regulation, water balance, gas exchange, excretion and acquisition of nutrients) and cellular communication and integration of systems. Prerequisite: BIO 118, or permission of instructor. 4 Cr

BIO 235 Introduction to Fisheries & Wildlife Management

Fisheries and Wildlife Management is a many-faceted field. There is no single class that will provide students with all they need to become a professional. This course is a combination of lectures, discussions, literature review and external activities that represent different aspects of the field. Topics include defining Fish & Wildlife Management, a historical perspective, demographics and population growth, "decimating/welfare factors" and specific case studies. Students will appreciate the breadth of the field, the coursework necessary to become a fisheries or wildlife biologist and acquire a basic conceptual fluency. While the course includes foundation-building content, the need for professional training will be emphasized. Prerequisite: BIO 117, BIO 118, BIO 114 and MAT 102. 3 Cr

BIO 245 General Ecology

An introduction to the major ecological concepts of energy flow, community and population structure, nutrient cycling, competition, and predation demonstrated through the study of selected ecosystems. The influence of geological processes in New England on soil formation and community structure is studied in lectures and field trips. Students are introduced to sampling techniques, experimental design, and statistical analysis of data through field trips to local aquatic, marine, and terrestrial ecosystems. Prerequisite: BIO 117, BIO 118, BIO 119 and MAT 102 (may be taken concurrently), or equivalents. 4 Cr

BIO 305 Research Seminar

This course is designed to allow students to assimilate the multiple aspects of independent research in a group setting. There are six primary components of the course: 1) review of primary literature pertinent to the project, 2) presentations by invited experts in the field, 3) discussion of stakeholder perspectives and options for effective communication of data, 4) training and education on new technologies and techniques, 5) student presentations (data presentation and summary will be required) and 6) open discussion and troubleshooting of individual research projects. The specific research topics addressed will change as the focus of

the various research projects changes. This course can be taken multiple times. Co-requisites: Participation in a research project, such as Senior Thesis in Biological Research (BIO 404, BIO 405, BIO 406), an Independent Study research project, or permission of instructor. 1 Cr

BIO 309 Special Topics in Biology

A course whose subject matter may come from any of a variety of topics in Biology. This course may be repeated for credit with different topics or at different levels. A lab may be included as part of the course. 1 - 4 Cr

BIO 310 Special Topics in Mariculture

This course allows students to experience a wide range of topics in marine aquaculture through numerous approaches including classroom seminars where topics may range from the history of mariculture in the U.S. to the biology and culture of salmonids, bivalves, or crustaceans. Additional options for students include hands-on activities involving culturing organisms in UMM's aquaculture research laboratory or attending outside seminars or conferences that involve the culture of marine organisms. May be repeated for credit as topics vary. May be offered pass/fail at instructor's option. Prerequisite: permission of marine biologists. 2 - 4 Cr

BIO 313 Ichthyology

The biology, ecology, and systematics of fresh and saltwater fish are studied through lectures, laboratories, and discussion of primary literature. Students develop skills in aging, identification, fisheries management, and aquaculture during laboratory and field trips. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117 and BIO 118, or equivalent. 4 Cr

BIO 315 Experimental Design & Analysis for Biologists

This course will introduce students to the most common and widely used experimental designs to generate biological data for both continuous and categorical variables. The emphasis will be on how to: 1) design resource-appropriate sampling programs; 2) avoid mistakes that make analyzing data difficult; and, 3) properly analyze data. Statistical methods such as analysis of variance, linear and non-linear regression, analysis of covariance, analysis of frequencies, and an introduction to multivariate analysis will be presented. Prerequisite: MAT 215. 4 Cr

BIO 332 Intro to Mariculture

A course that introduces students to topics in marine aquaculture, primarily mariculture in Maine. Topics include the history of mariculture in the state, water quality parameters, culture systems, life histories and ecology, public vs. private mariculture, feeding and nutrition, diseases within culture systems, and mariculture economics. UMM's mariculture facility is used to culture algae, shellfish, and finfish. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117, BIO 118, BIO 119 and BIO 206, or permission of instructor. 4 Cr

BIO 333 Plant Ecology

This course provides a general introduction to plant population and community ecology. Among the topics considered are the development and dynamics of plant community structure; plant population demography; species interactions; effects of disturbance on population and community structure and dynamics. Prerequisite: BIO 245. Offered fall semesters of even-numbered years. 4 Cr

BIO 334 Cell Biology

A study of the properties of eukaryotic cells. As the smallest unit of life, the cell defines both the potential capabilities and inherent limitations of all forms of life. This course explores the structure, physiology, and biochemistry of cells, with the primary goal of developing an appreciation for the connections between the workings of individual cells and the activity of the whole organism. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 117 and CHY 102. (CHY 221 recommended.) 4 Cr

BIO 340 Evolution

A study of the scientific theories and evidence related to the process of evolution. Topics covered include the mechanisms of evolution, molecular evolution, speciation, and the history of life. Lecture 3 hours. Prerequisite: BIO 353 or permission of instructor. (CHY 221 and MAT 215 recommended.) 3 Cr

BIO 350 Developmental Biology

A course combining the classical study of embryology with an emphasis on the genetic and biochemical control of development. Animal embryos are studied in the context of cell differentiation and formation of body pattern. Influences of the environment on developmental processes will also be investigated. Lecture 3 hours. Prerequisite: BIO 334, BIO 353. (BIO 323 recommended.) 3 Cr

BIO 352 Algal & Marine Plant Ecology

This course will engage students in studies and active research in the functional biology, ecology, physiology, taxonomy and identification of algae and marine plants (primarily marine macrophytes). The course will focus on 1) the abiotic and biotic factors affecting their growth and distribution, 2) the structural and physiological differences in their taxonomic and functional groups, 3) the role of algae and plants as important foundation species for habitat and food in major marine communities, and 4) the contrasting ecological differences structuring those communities. Students will learn to identify and collect local algae and marine plants through herbaria. Students will use a variety of species and systems to read about, ask and answer experimental questions related to the ecology and physiology of these organisms. Original research will occur in the field and laboratory through a process of guided inquiry. Students will learn to read and write papers using statistical analyses and the scientific format. Prerequisites: BIO 117, BIO 119, ENV 103, BIO 206, CHY 101, CHY 102 (may be concurrent), MAT 215, MAT 315, or permission of instructor. 4 Cr

BIO 353 Genetics

An in-depth investigation into the mechanisms of heredity. The course builds strong foundations in Mendelian and molecular genetics. Topics covered include probability, pedigree analysis, the molecular biology of the gene, gene expression, mechanisms of mutation, and population's genetics. The laboratory portion of the course includes common organismal and molecular techniques used in whole organism genetic analysis and molecular biology. Lecture 3 hours, laboratory 3 hours. Prerequisite: BIO 117, CHY 101, CHY 102, MAT 102. (CHY 221 and MAT 215 recommended.) 4 Cr

BIO 355 Conservation Biology

A capstone course examining the principles and practices of measuring, maintaining, and enhancing biological diversity. The course focuses on applications of ecology, population biology, and genetics to the conservation of species and ecosystems. Laboratories may include computer simulations and fieldwork. Lecture 3 hours, laboratory 2 hours. Prerequisite: BIO 245; MAT 215 or higher; junior or senior standing; ENV 112 or BIO 353; or permission of instructor. 4 Cr

BIO 359 Genomic Research

This project-based course focuses on the bioinformatic and molecular analysis of genomic data. Students will learn basic biology, including analysis of primary literature. Students will submit

annotated sequence data and complete research projects related to bacteriophage research. Prerequisite: BIO 100 or BIO 117, or permission of instructor. 2 Cr

BIO 360 Marine Ecology

An advanced course in ecology comparing the population and community dynamics of a variety of intertidal and subtidal hard-and soft-bottom, planktonic, and coral reef communities. Topics include spatial relationships, competition, prey-predator relationships, symbiosis, behavioral patterns, seasonal cycles, succession, larval strategies, and productivity. Through field and laboratory work students learn to design and conduct experiments, analyze data, and write research papers. Lecture 2 hours, laboratory 4 hours. Prerequisite: BIO 206, 227, 245, MAT 215 and MAT 315. 4 Cr

BIO 401 Senior Thesis in Biology

The BIO 401, 402, and 403 sequence is designed for students wishing to prepare an in-depth literature review of an aspect of Biology of particular interest. Students typically begin the sequence during the second semester of the junior year of study. Students first enroll in BIO 401, and in consultation with a thesis advisor, select a topic and prepare a bibliography and an outline of the paper. A grade of "pass" or "fail" is awarded. Prerequisite: 3.0 GPA within the major and overall, and approval by a thesis advisor. 1 Cr

BIO 402 Senior Thesis in Biology

In the second semester of the sequence, students enroll in BIO 402. During this semester, the bibliography is updated, and a preliminary draft of the paper is submitted to the thesis advisor. A grade of "pass" or "fail" is awarded. Prerequisite: 3.0 GPA within the major and overall, and approval by a thesis advisor. 1 Cr

BIO 403 Senior Thesis in Biology

In the third semester of the sequence, students enroll in BIO 403. A final draft of the paper is submitted to the Division of Environmental and Biological Science faculty. Students make an oral presentation of the topic and make any corrections to the paper required by the division faculty. A grade of "pass" or "fail" is awarded. Prerequisite: 3.0 GPA within the major and overall, and approval by a thesis advisor. 1 Cr

BIO 404 Senior Thesis in Biological Research

An opportunity for students to engage in independent research on a biological problem of interest to them. Such work involves field or laboratory

experimentation, computer modeling, or a combination of methodologies. A student typically begins in the second half of the junior year of study. The student first enrolls in BIO 404. In consultation with a thesis advisor the student selects a research project, prepares a bibliography and preliminary literature review, and submits a research proposal. SSC 320 Research Methods and Design may be substituted for this first semester. A grade of "pass" or "fail" is awarded. Prerequisite: MAT 215, a 3.0 GPA within the major and overall, and approval by a thesis advisor. 2 Cr

BIO 405 Senior Thesis in Biological Research

In the second semester of the sequence, the student enrolls in BIO 405. During this semester, the student completes the experimental portion of thesis work and prepares a draft paper. A grade of "pass" or "fail" is awarded. Prerequisite: MAT 215, a 3.0 GPA within the major and overall, and approval by a thesis advisor. 2 Cr

BIO 406 Senior Thesis in Biological Research

In the third semester of the sequence, the student enrolls in BIO 406. The student must submit a final draft of the paper to the Division of Environmental and Biological Science faculty. The student gives an oral presentation of the topic and makes any final corrections to the paper required by the division faculty. A grade of "pass" or "fail" is awarded. Prerequisite: MAT 215, a 3.0 GPA within the major and overall, and approval by a thesis advisor. 2 Cr

BIO 409 Special Topics in Biology

A course whose subject matter may come from any of a variety of topics in Biology. This course may be repeated for credit with different topics or at different levels. A lab may be included as part of the course. 1 - 4 Cr

BIO 410 Senior Seminar in Biology

Biology majors with a GPA less than 3.0 must take BIO 410 rather than one of the Senior Thesis sequences. This is a one-semester seminar course in which students can expect to have regular reading assignments and class discussions. The topic or topics are chosen in advance by the instructor. Students have an opportunity to investigate areas within the topic(s) of particular interest to them. Papers, oral reports, and/or exams are required at the discretion of the instructor. Prerequisite: Senior standing or permission of Instructor. 3 Cr

BIO 460 Seminar in Marine Ecology

A seminar course whose primary objective is to explore marine ecological concepts, themes, and

paradigms of student interest. Students are assigned readings from primary literature and learn how to interpret those readings critically with respect to methodological design, results, and ultimate theses. Prerequisite: BIO 360. 3 Cr

BIO 482 Senior Seminar in Marine Biology

A course that will offer senior-level marine biology students interesting and challenging material of a topical nature. Readings will draw from both primary and secondary sources. Content is discussed in group settings. Students will investigate areas of particular interest to them through written and oral presentations. Prerequisites: Completion of all other requirements within Marine Biology or permission of instructor. 3 Cr

BUS 111 Introduction to Business & Entrepreneurship

An introductory course providing knowledge of what business and entrepreneurship are all about. It is a basic course in business, economic and entrepreneurial literacy as well as organizational structures and functions, and provides an overview of the traditional business disciplines including marketing, finance, accounting, management, information systems, etc., and additionally forms the basis for subsequent studies. Competency and/or concurrent enrollment in basic reading, writing, and mathematics courses are a prerequisite for all business studies offerings with a prefix of ACC, BUS, MAN, or MAR. 3 Cr

BUS 212 Business Communications

A course designed to develop effective communication skills in the areas of writing, speaking, and listening. Emphasis is placed on appropriate formats for business communications including grammatical style, clarity, and conciseness of messages. Prerequisite: ENG 101. 3 Cr

BUS 221 Business Law I

A course designed to create an understanding of the fundamentals of business law and an awareness of the legal environment in which the business enterprise operates. Special emphasis is given to the basic principles of law that apply to business transactions of a contractual nature. Prerequisite: ENG 101. 3 Cr

BUS 222 Business Law II

A course designed for continued emphasis on the legal principles governing business transactions. Special emphasis is given to commercial paper, real and personal property, bailments, agency and employment. Prerequisite: BUS 221. 3 Cr

BUS 324 Labor Relations Management

This course provides an examination of the legal, managerial and economic factors relevant to labor management relations and an in-depth investigation into the character and procedures of arbitration, mediation, conciliation, and fact-finding. Current labor management contracts and implications for labor and management will also be discussed. Prerequisite: Junior standing or permission of instructor. 3 Cr

BUS 325 Business Ethics & Social Responsibility

This upper-level course gives the student a thorough introduction to important ethical issues that arise in the world of business, including the analysis of interests of all the individuals who hold a stake in the outcome of any business dilemma or decision. The course encourages students to open their minds to the variety of opinions on any given ethical issue. The results of this approach will be to help ensure that all stakeholder perspectives are considered. The course emphasizes the application of traditional ethical theories to modern decision-making. Finally, major emphasis will be placed on how and why ethical business behavior varies among countries and cultures. Prerequisite: Junior status or permission of instructor. 3 Cr

BUS 332 Leadership

Leadership is an applied course that combines behavior theory with business practice. The course teaches central concepts and skills in an important area of leadership development. The course will be made more forceful and the impact greater by the self-evaluation questionnaires and practical exercises that are used for personal development and class involvement. This course gives the student a thorough introduction to important leadership issues that arise in the world of business, including the analysis of the interests of all the individuals who hold a stake in the outcome of any business dilemma or decision. The course encourages students to open their minds to the variety of opinions on leadership and entrepreneurial issues. Prerequisite: Junior standing or permission of the instructor. 3 Cr

BUS 334 International Business

This course introduces students to the global business environment and the challenges and opportunities managers face in an international context. Students learn about cultural, geographic, economic, political and legal forces affecting international business and the implications for managers. Students examine the theories and practice of international trade, foreign investment and foreign currency exchange, and learn about strategies and procedures for conducting

business internationally. Prerequisite: BUS 111 and ECO 201, or permission of instructor. 3 Cr

CHY 101 General Chemistry I

The first part of a two-semester introduction to the properties and behavior of matter at the atomic and molecular level: unites and definitions, chemical changes, stoichiometry, energy changes, structure and periodicity of atoms, nuclear chemistry, states of matter, and chemical bonding. The integrated laboratory provides concrete experience of concepts discussed. In most cases, students should plan to take both CHY 101 and CHY 102. Lecture 3 hours, laboratory 3 hours. Prerequisite: MAT 102 or equivalent. 4 Cr

CHY 102 General Chemistry II

A continuation of General Chemistry I dealing with kinetics, reaction rates, equilibria, acids and bases, simple thermodynamics, electrochemistry, metals and non-metals and, briefly, elements of organic and biochemistry. The integrated laboratory reinforces concepts from the lecture. Lecture 3 hours, laboratory 3 hours. Prerequisite: CHY 101 or equivalent. 4 Cr

CHY 113 Intro to Forensic Science

This course will provide an examination of the basic principles and practices of forensic science. Integrative laboratory experiences will instruct students in scientific experimentation, basic forensic techniques (including a layman's discussion of microscopy, chromatography, electrophoresis, spectroscopy and spectrometry) and case studies will be examined as group exercises and individually. Topics will include an introduction to forensic science, criminology, trace evidence examination, serology, DNA analysis, toxicology, arson investigation, questioned document analysis, medical examination, and the analysis of paint and gunshot residue samples. In addition, forensic psychology will be briefly discussed. Prerequisite: BIO 117 or permission of instructor. 3 - 4 Cr

CHY 221 Organic Chemistry I

An introduction to the properties and reactivity of carbon compounds. Reactions are analyzed with an emphasis on the structural and mechanistic bases for reactivity. Nomenclature and basic analytical methods are also considered. The integrated laboratory reinforces concepts from lecture. Lecture 3 hours, laboratory 4 hours. Prerequisite: CHY 102 or equivalent. 4 Cr

CHY 222 Organic Chemistry II

A continuation of Organic Chemistry I, including a survey of the major functional groups of carbon compounds. Knowledge of reactivity is applied to structural analysis and organic synthesis. The integrated laboratory reinforces concepts from lecture. Lecture 3 hours, laboratory 4 hours. Prerequisite: CHY 221 or equivalent. 4 Cr

CHY 226 Undergraduate Research in Chemistry

The objective of this course is for the student to conduct an original research project under the supervision of a faculty member. The student will work in consultation with a research advisor to develop and undertake a research project in chemistry. A final written report is required. A grade of pass/fail is awarded. This course may be taken multiple times for credit. Prerequisite: CHY 102 and approval by a research advisor. 1 - 2 Cr

CHY 234 Environmental Chemistry

A course to acquaint students with the chemical aspects of environmental concerns including energy production and use, air and water pollution, pesticides and toxic wastes. The earth and its natural cycles are examined as are changes brought about by human technologies. Methods of monitoring chemical aspects of environmental change including analysis of air and water samples are presented, as are means of ameliorating environmental damage. The integrated laboratory provides 'hands-on' experience with these techniques as well as field trips to areas of concern. Lecture 3 hours, laboratory 4 hours. Prerequisite: CHY 102 or permission of instructor. 4 Cr

CHY 305 Research Seminar

This course is designed to allow students to assimilate the multiple aspects of independent research in a group setting. There are six primary components of the course: 1) review of primary literature pertinent to the project, 2) presentations by invited experts in the field, 3) discussion of stakeholder perspectives and options for effective communication of data, 4) training and education on new technologies and techniques, 5) student presentations (data presentation and summary will be required) and 6) open discussion and troubleshooting of individual research projects. The specific research topics addressed will change as the focus of the various research projects changes. This course can be taken multiple times. Co-requisites: Participation in a research project, such as Undergraduate Research in Chemistry (CHY 226, CHY 326), an Independent Study research project, or permission of instructor. 1 Cr

CHY 311 Analytical Chemistry

The goal of this course is to introduce students to the process of solving analytical chemical problems. Topics covered include sampling and sample preparation; solution equilibria; introduction to common analytical methods and how to choose an appropriate method for a specific analytical problem; method validation; and evaluation of analytical data. Students completing this course will possess the skills necessary to accurately perform routine quantitative analyses of samples, use Standard Methods, and to judge the precision and reliability of their results. Lecture 3 hours, laboratory 4 hours. Prerequisite: CHY 102 or equivalent. 5 Cr

CHY 322 Biochemistry

A study of the molecules of living systems: amino acids and proteins, enzymes, carbohydrates, nucleic acids and lipids. Structure/function relationships are applied in a survey of metabolism, photosynthesis, biosynthesis, immunochemistry, clinical chemistry, nutrition, and molecular biology. The integrated laboratory provides basic biochemical techniques and application of concepts discussed in lecture. Lecture 3 hours, laboratory 4 hours. Prerequisite: CHY 222 or equivalent. 4 Cr

CHY 326 Undergraduate Research in Chemistry

The objective of this course is for the student to conduct an original research project under the supervision of a faculty member. The student will work in consultation with a research advisor to develop and undertake a research project in chemistry. A final written report is required. A grade of pass/fail is awarded. This course may be taken multiple times for credit. Prerequisite: CHY 102 and approval by a research advisor. 1 - 2 Cr

CMY 101 Introduction to Community Studies

Community is both a fundamental concept and a unit of study in the social sciences. Through an examination of communities past and present the course surveys developments that have shaped the nature and workings of community and it reviews the theories and methodologies that social scientists have developed for community research. The course will be concerned primarily with communities of place with emphasis on the northeastern United States, although the concepts and methods discussed could be applied to other forms of community (communities of interest, virtual communities and others). In addition to lectures, media presentations and other in-class activities, students will participate in an applied community-based project. Course assignments may include reading and writing tasks

and a hands-on project that will focus on the construction of a local community profile. 3 Cr

CMY 110 Downeast Documentary

This course provides the basics of video production, incorporating both lecture and laboratory experience. Students will learn about shot composition, sound, lighting, and editing, all from a digital video format. Students will produce and edit several projects from a variety of media formats, depending on the interests of the student. Prerequisite: Sophomore standing or permission of instructor. 3 Cr

CMY 212 Local Economies in a Global Market

This course provides an introduction to the field of community economic development. The course focus will be on small rural communities in areas that have historically depended on natural resource extraction, manufacturing and agriculture. These communities -- in Maine, across the US and throughout the world -- have often been "left behind" in the changing arena of global markets, global competition, global finance and post-industrialization. Much effort, both academic and practical, has been focused on the fate of local community economies and the ways in which local livelihoods can be sustained and improved. Guest speakers from local businesses and economic development initiatives plus field trips will be incorporated as concrete examples of how concepts and theories apply to real people and businesses in our immediate community. Prerequisite: ENG 101, or permission of instructor. 3 Cr

CMY 215 Special Topics in Community Studies

Courses designed to allow students to pursue study in an area within Community Studies. Courses vary in response to student interest and demand. Prerequisite: Dependent upon course offered, or permission of instructor. 3 Cr

CMY 220 Soliya: Cross-Cultural Communication

Soliya's Connect Program is a unique cross-cultural education program that enables college students in the US and predominantly Muslim countries in the Middle East to collaboratively explore the relationship between the US and Muslim World with the aim of improving intercultural awareness and understanding. Participating students from across the globe literally see and hear one another in a rich and intimate online environment utilizing the latest in videoconferencing and online collaboration technology. Recognizing the profound role of media in shaping young adults' perceptions of other cultures, Soliya trains participating students to create and exchange video segments illustrating their

perspectives on world events. Prerequisite: Sophomore standing and GPA of 3.0 or better or permission of instructor. 3 Cr

CMY 310 Online Communities & Culture

This course provides an investigation into the development of online communities. Some of the questions explored include: What is an online community? What is the membership cycle for online community members? What makes online communities succeed or fail? What are the economic, social, professional and cultural needs being fulfilled by online communities? What effects to online communities have on face-to-face community development? What are the ontological impacts from the proliferation of online communities? Prerequisites: CMY 101 or ANT 101 or SOC 114, or permission of instructor. 3 Cr

CMY 312 Soliya: Advanced Projects

Activities are designed to enable students to further expand upon skills they began to develop through their participation in the initial Soliya Connect program. Participating students will only be working on one of the following projects at a time. They will be able to participate again in another project if chosen. Each program will involve a small number of US and Middle Eastern students communicating regularly through the videoconferencing application used for the Connect program. Currently the advanced projects include facilitation training, collaborative video project, and student leadership/developing cooperative actions, each led by highly skilled educators within each field. Prerequisite: Sophomore standing, GPA of 3.0 or better, C or better in CMY/HON 220, or permission of instructor. 1 - 3 Cr

CMY 313 Crossing Borders

Crossing Borders is an international learning and teaching module which allows students to discover ways of bringing down barriers and boundaries in a global classroom environment. The participants will cross borders in many ways, because they will cooperate with peers from other countries on joint tasks, communicate in a multinational community and compare ways to empower and include marginalized populations in different countries. Course includes a travel component. Prerequisite: Junior Standing. 3 Cr

CMY 315 Special Topics in Community Studies

Courses designed to allow students to pursue study in an area within Community Studies. Courses vary in response to student interest and demand.

Prerequisite: Dependent upon course offered, or permission of instructor. 3 Cr

CMY 415 Special Topics in Community Studies

Courses designed to allow students to pursue study in an area within Community Studies. Courses vary in response to student interest and demand. Prerequisite: Dependent upon course offered, or permission of instructor. 3 Cr

COE 201 Cooperative Education I

The purpose of the Cooperative Education/Internship program is to provide practical experiences for students that complement their academic studies and introduce them to the world of work with its corresponding professional activities. These work-based learning experiences promote the application of theoretical knowledge and research skills acquired in the classroom to a productive and supervised experiential work site outside the formal classroom environment. Cooperative education and internships assist students in the career development process by enabling them to examine their abilities, values, and interests while applying them to an actual career experience. One distinction between cooperative education and an internship is that co-op assignments are, more often than not, paid work experiences. Internships usually are non-paid, volunteer assignments and are often combined with additional readings and research. The granting of academic credit for an approved work experience is determined by the student's faculty sponsor and the university coordinator after an examination of the following criteria: nature of the work to be performed, the proposed learning objectives, the number of weeks involved, and the anticipated hours per week. Students must apply to the coordinator for cooperative education/internship before registering for the class. It is strongly recommended that planning and application for all cooperative education and internship experiences begin during the semester prior to participation. Many fields of study require as a condition of graduation the completion of one or more training programs or courses in an outside clinical or professional setting, such as a hospital, clinic, professional office, or public classroom. These outside institutions, offices, and schools that provide the environmental opportunities to students sometimes impose additional requirements as conditions of participation in their programs. Such requirements might include evidence of a recent medical examination; evidence of health, auto or other insurance; a written agreement to personally accept and abide by the rules and regulations of that institution; the execution of an indemnity agreement or release relative to personal

liability or liability to others; and similar requirements pertinent to the particular study program. The University assumes assent and compliance to such requirements, rules, and regulations by each student upon his or her enrollment in those courses involving outside study. Basic, entry-level work-learning experience in an institution and/or business that relates to the student's career interests or academic field. Open to students who have completed a minimum of 24 cr. 1 - 6 Cr

COE 301 Cooperative Education for ERTM Majors

Involves management or special project assignments related to the student's career interests or academic field. Prerequisite: Students should have completed two non-credit 50+ hour practicum experiences and a minimum of 48 credits. 6 - 12 Cr

COE 305 Internship in Science

A professional experience for the student who has identified a specific career objective and is interested in gaining significant and extensive experience in that science-related field. A formal approval process is followed in which students meet with the faculty advisor with expertise in the area of interest and specify individual learning outcomes for the experience. This approval process precedes registration. A student will be required to complete 40 hours of supervised work for each credit earned. A summative report addressing how the student met the learning outcomes is expected at the end of the experience. 3-9 cr 3 - 9 Cr

COE 313 Community Experience: Internship & Seminar

This course is meant to provide a professional experience for the student who has identified a specific career objective or graduate school objective and is interested in gaining significant experience in that field. This may be a volunteer or a paid position and may be combined with additional readings and literature research related to either the position itself or the student's specific career objective. A formal approval process is followed in which students meet with the faculty advisor with expertise in the area of interest and specify individual learning objectives for the community experience. The approval process precedes registration. After approval, students will attend a mandatory orientation workshop/meeting prior to the community experience and upon completion will attend a mandatory summative workshop/meeting. This course includes a Service-Learning and Community Engaged (SL/CE) component. Prerequisite: PSY 211 and junior or senior standing. Additional prerequisites dependent

upon proposed experience, or permission of instructor. 3 Cr

CSE 109 Topics in Computer Trends

A hands-on course designed to offer students the latest changes in technology and software. This course may be repeated for credit as topics change. 1 - 3 Cr

CSE 115 Business Spreadsheet Applications

This course provides an introduction to basic, intermediate and advanced spreadsheet functions. Topics covered include creating, presenting and analyzing worksheets, charts and graphs, templates, filter lists, macros and hyperlinks. Students will complete and present a practical business spreadsheet as a final project. Uses Microsoft Excel and/or open source software. 3 Cr

DAN 104 Beginning Tahitian Dance

This course offers an introduction to the ancient art of Tahitian dance, still popular in the modern world. Dancers today enjoy it for fun, fitness and friendship. The class will cover basic dance movements. Students will wear costumes and learn dance routines to delightful Tahitian music with which to enchant friends, family and classmates at the end of the semester. 1 Cr

DAN 106 Beginning Belly Dance

This course offers an introduction to the ancient art of belly dance, still popular in the modern world. Belly dancers today enjoy it for fun, fitness and friendship. The course will cover basic dance movements, as well as basic finger cymbal patterns and veil work. Students will wear costumes and learn dance routines to sultry Middle Eastern rhythms. Offered pass/fail. 1 Cr

DAN 119 Special Topics in Dance

A learning experience designed to allow students to pursue study in any of a variety of styles in dance and movement as creative expression and may include: format and technique; interpretation, improvisation and choreography; and costuming, performance and production. Courses and special workshop experiences in Dance vary in content in response to student interest and faculty availability and expertise and may be repeated for credit with different topics or at different levels. Prerequisite: Depends on topic and level, or permission of instructor. 1 Cr

DAN 216 Intermediate Belly Dance

Students build on their experience in Beginning Belly Dance and continue to enjoy a dance form that celebrates feminine grace, beauty and strength.

Participants refine basic dance movements and learn additional dance movements and choreographies. Students will continue to incorporate finger cymbals and a veil with dance movements and learn how to use a dance cane. Students will develop skills in choreographing for group dances and continue to work on improvisational belly dance, as well as work on developing choreography skills for group dances performed at the end of the semester. Offered Pass/Fail. Prerequisite: DAN 106, or permission of instructor 1 Cr

DAN 219 Special Topics in Dance

A learning experience designed to allow students to pursue study in any of a variety of styles in dance and movement as creative expression and may include: format and technique; interpretation, improvisation and choreography; and costuming, performance and production. Courses and special workshop experiences in Dance vary in content in response to student interest and faculty availability and expertise and may be repeated for credit with different topics or at different levels. Prerequisite: Depends on topic and level, or permission of instructor. 1 Cr

DAN 319 Special Topics in Dance

A learning experience designed to allow students to pursue study in any of a variety of styles in dance and movement as creative expression and may include: format and technique; interpretation, improvisation and choreography; and costuming, performance and production. Courses and special workshop experiences in Dance vary in content in response to student interest and faculty availability and expertise and may be repeated for credit with different topics or at different levels. Prerequisite: Depends on topic and level, or permission of instructor. 1 Cr

DAN 419 Special Topics in Dance

A learning experience designed to allow students to pursue study in any of a variety of styles in dance and movement as creative expression and may include: format and technique; interpretation, improvisation and choreography; and costuming, performance and production. Courses and special workshop experiences in Dance vary in content in response to student interest and faculty availability and expertise and may be repeated for credit with different topics or at different levels. Prerequisite: Depends on topic and level, or permission of instructor. 1 Cr

ECO 201 Macroeconomics

An analysis of the behavior and performance of the aggregate, or overall, economy. Focuses on forces determining equilibrium output and income, employment, inflation, growth and economic

stability. The role for and effectiveness of government economic (fiscal and monetary) policy is considered. Prerequisite: sophomore standing and MAT 12 or equivalent, or permission of instructor. 3 Cr

ECO 202 Microeconomics

An analysis of the behavior and interaction of fundamental economic entities: households and firms. Topics include demand and supply, competition, monopoly, labor markets, international trade, and environmental policy. Prerequisite: sophomore standing and MAT 12 or equivalent, or permission of instructor. 3 Cr

ECO 223 Environmental Economics

This course introduces students to economic concepts and methods applied to environmental and natural resource issues. Students examine the importance of natural resources and environmental services for the economy and human well-being. Students contemplate the underlying causes of environmental problems and consider how people respond to incentives and constraints framed by economic and social institutions. Students learn about valuation techniques and decision criteria, and learn to evaluate policies based on efficiency, equity and sustainability. The course typically covers some of the following topics: sustainable development, population growth, energy, water resources, fisheries, forest management, agriculture, air and water pollution, climate change, solid waste and recycling and toxic substances. 3 Cr

EDU 103 Preparing for Praxis Core Academic Skills for Educators: Reading

This course will prepare individuals to take the Praxis Core Academic Skills Test in Reading. Students will become familiar with the structure and content of the Praxis Reading test through a review of the basic skills of reading comprehension, including the practices of skimming, previewing, locating answers, summarizing and evaluating a variety of different types of written material. Test-taking strategies, time management and organizational skills will be emphasized, as well as methods for reducing test anxiety. 1 Cr

EDU 104 Preparing for Praxis Core Academic Skills for Educators: Writing

This course will prepare individuals to take the Praxis Core Academic Skills for Educators Test in Writing. Students will become familiar with the structure and content of the Praxis Writing test, including detailed instruction in the basic skills of writing in order to communicate effectively with correct and effective

standard written English. Test-taking strategies, time management and organizational skills will be emphasized, as well as methods for reducing test anxiety. 1 Cr

EDU 107 Preparing for Praxis Core Academic Skills for Educators: Mathematics

This course will prepare individuals to take the Praxis Core Academic Skills for Educators Test in Mathematics. Students will become familiar with the structure and content of the Praxis Math test, including detailed instruction in constructs that are assessed: number and operations, algebra, geometry and measurement and data analysis and probability. Test-taking strategies, time management and organizational skills will be emphasized, as well as methods for reducing test anxiety. 1 Cr

EDU 112 School and Community

A pre-professional course required of all education majors. This course examines historical, philosophical and current educational issues. The role of the professional educator is a focus, and the student evaluates personal skills and aptitudes in light of expectations for the profession. An extended field experience is a major component of the course. Prerequisite: Successful completion of or concurrent enrollment in ENG 101. 3 Cr

EDU 216 Assessment & Curriculum Design

The purpose of this course is to gain understanding and offer experience in design, implementation and evaluation of curriculum aligned with assessment practices. Instructional goals and objectives to develop a variety of appropriate assessment tools for both formative and summative assessment are critical to effective teaching. Both classroom and standardized assessment and their reliability and validity will be considered. Philosophy, goals and practices are explored through cultural, economic, political and social influences on the curriculum. Prerequisite or co-requisite: EDU 112, or permission of instructor. 3 Cr

EDU 223 Children's Literature

A course that encourages extensive reading, discussing, enjoyment, and appreciation of books, periodicals and other literature for young people. Students are assisted in developing and using criteria for evaluating children's literature. Characteristics of various genres are discussed. In addition, some attention is given to oral storytelling, history, and other aspects that vary according to the interests and abilities of the particular class. This course is required for all elementary school education majors and is suggested as an elective for English majors and

others who are interested in literature or who work with children. Prerequisite: ENG 101 and a 100-level literature course, or permission of instructor. 3 Cr

EDU 301 Teaching and Learning

A self-designed supervised practicum experience involving tutoring; assisting a classroom teacher; and planning, implementing, and evaluating lessons in educational settings beyond the university classroom. Individual contracts are developed by the student, supervisor, and field practitioner for each experience. This course may be repeated for a total of no more than 9 cr. Prerequisite: EDU 210. .5 - 9 Cr

EDU 309 Educational Psychology

A course designed to help prospective teachers reflect upon the dynamics of learning and instruction. Theories of the cognitive, affective, and behavioral domains are related to classroom experience. Other topics include: educational research, assessment and evaluation, individual and group differences, motivation, classroom management, and effective teaching. A field experience over an extended period of time is also a component of the course. 3 Cr

EDU 320 Topics in Education

Topics for pre-service and practicing teachers interested in education, pre-kindergarten through the secondary level. May be repeated for credit as topics vary. Prerequisite: varies by topic. 3 Cr

EDU 321 Secondary Methods of Teaching

This is a course focusing on teaching methods for secondary education. Prospective secondary school teachers explore the nature and relevance of their content area for students in grades 7-12. In addition to considering the learner and the learning process, students are equipped with a range of specific instructional strategies for diverse populations, including the multicultural perspective. Teaching methods for the following secondary content areas are included: English, social studies, math, science and art. In conjunction with an internship in local schools, including observation and presentation of a series of lessons, this course provides students an opportunity to apply principles and insights acquired through the course. Co-requisite: EDU 337 and Prerequisite: EDU 216 and successful completion of Praxis Core Academic Skills for Educators; or permission of instructor 3 Cr

EDU 327 Content Area Literacy Methods

This course focuses on content area literacy through the exploration and application of strategic teaching methods that will enhance student understanding of content area material. Participants will come to

understand that learning is an active, constructive process and will recognize that using a variety of learning strategies and development of critical thinking skills will enhance understanding. Participants will be required to demonstrate knowledge and application of sound reading and writing strategies to be used in the classroom. These strategies will create readiness for learning, and will use reading and writing to promote content understanding. An additional focus is on encouraging extensive, reading, discussion, enjoyment and appreciation of literature. A field placement is required. Prerequisite: EDU 216 and co-requisite SED 365; or permission of instructor. 3 Cr

EDU 328 Environmental Literacy

The goal of this course is to provide students with strategies to teach others how to become environmentally literate citizens. Environmental Literacy helps students act successfully in their daily lives with a broad understanding of how people and societies relate to each other and to natural systems, and how they might do so sustainably. It also strives to provide students with the scientific principles, concepts and methodologies required to understand the interrelationships of humans to the natural world. This course encourages outdoor learning and is appropriate for pre-service teachers as well as students interested in educating the public on environmental as well as biological and ecological issues. Prerequisite: ENV 112 and EDU 112, or permission of instructor. 3 Cr

EDU 329 Elementary Social Studies Methods

This course focuses on methods to teach elementary social studies curriculum and the diverse ways this component of the curriculum has been, and continues to be, defined in American schools. Students will explore a range of developmentally appropriate teaching strategies and resources that are especially pertinent to historical and cross-cultural topics, but also to procedures that are transferable to teaching other areas of the curriculum. Diffused throughout the course is an appreciation for cultural diversity and the value of looking at situations from multiple perspectives. This course is part of a 40-hour internship partnered with other key courses. Co-requisite: EDU 332 and SED 345. Prerequisite: EDU 327 and successful completion of the Core Academic Skills for Educators Praxis exam, or permission of instructor. 3 Cr

EDU 332 Elementary Science Education Methods

A course designed to explore issues and strategies relevant to science teaching in an elementary

classroom. Integrated science curriculum materials are designed, implemented and assessed in a field practicum. Inquiry-based models for science instruction such as project-based learning are explored, as are more traditional instructional techniques. The extended field practicum in a local elementary classroom is an integral part of the course. Co-requisite: EDU 329 and SED 345. Prerequisite: EDU 327 and successful completion of Core Academic Skills for Educators Praxis exam, or permission of instructor. 3 Cr

EDU 334 Integrated Reading & Language Arts Methods

A course designed to assist prospective teachers in acquiring the competencies necessary to organize, instruct, evaluate, and manage the communication skills in the elementary/middle school programs. Course content focuses on the theories, approaches and related materials and effective practices in developmental listening, speaking, reading and writing in grades K-6. The focus is on an integrated approach to communication skills acquisition. Students are required to demonstrate competency in utilizing technology for skill reinforcement. Consideration is given to the needs of exceptional children in the regular classroom. Prerequisite: EDU 327 and successful completion of Core Academic Skills for Educators Praxis exam; Co-requisites: EDU 337 and EDU 344; or permission of instructor. 3 Cr

EDU 337 Classroom Management

This course is designed to give students an in-depth practical experience in pedagogical methods and classroom management based in theory and application. Equitable student outcomes will be emphasized as students reflect upon their placement experiences in order to develop an individual approach to building an inclusive, productive and well-structured learning environment conducive to high levels of student support and achievement. Students will spend a minimum of six hours per week in local classrooms while observing, participating and teaching. Students will be required to develop a classroom management system as well as teach a unit plan developed in their methods course. Prerequisite: EDU 327. Co-requisites: For Elementary Education majors: EDU 334 and EDU 344; for Secondary Education majors and minors: EDU 321; or permission of instructor. 3 Cr

EDU 338 Behavior Management

This course is designed to give students an in-depth practical experience in pedagogical methods and classroom management based in theory and

application. Equitable student outcomes will be emphasized as students reflect upon their placement experiences in order to develop an individual approach to building an inclusive, productive and well-structured learning environment conducive to high levels of student support and achievement. Students will spend a minimum of six hours per week in local classrooms while observing, participating and teaching. Students will be required to develop a classroom management system as well as teach a unit plan developed in their methods course. Prerequisite: EDU 337 and SED 310, or permission of instructor. Corequisites: EDU 344 and EDU 349 (for Elementary Education majors); EDU 327 (for Secondary certification). 3 Cr

EDU 339 Working with Culturally Diverse Students

This course explores the historical, philosophical and cultural foundations of education for a culturally diverse society. Students will use multiple frames of reference to examine the impact of race/ethnicity, class, gender and sexual orientation on the lives of students in America; the relationship of society and schools; and the responsibilities of schools and school personnel for promoting inclusivity. This course will focus on the social construction of privilege, examine the concept of "public" education and explore how schools can recognize and respond to issues of diversity. Prerequisite: EDU 112 and SOC 114, or permission of instructor. 3 Cr

EDU 344 Mathematics in the Elementary School

A course designed to acquaint prospective elementary and middle-level teachers with the content, strategies, techniques, materials, and organizational structures related to teaching mathematics. Topics include problem solving, logical thinking, finding numerical patterns, transmitting positive attitudes towards mathematics, and the use of manipulatives and technology. Methods of increasing the mathematics skills of children with exceptionalities are addressed. A practicum is an integral part of the course. Co-requisites: EDU 334 and EDU 337. Prerequisite: EDU 216, MAT 114 and successful completion of Core Academic Skills for Educators Praxis exam; or permission of instructor. 3 Cr

EDU 349 Integrated Reading & Language Arts Methods II

A course designed to assist prospective teachers in acquiring the competencies necessary to organize, instruct, evaluate, and manage the communication skills in the middle/secondary school programs. Course content focuses on the theories, approaches

and related materials and effective practices in developmental listening, speaking, reading, and writing in grades 7-12. The focus is on an integrated approach to communication skills acquisition. Students are required to demonstrate competency in utilizing technology for skill reinforcement. Consideration is given to the needs of exceptional children in the regular classroom. A practicum is required. Prerequisite: EDU 220 or EDU 334, and Co-requisite: EDU 344 and EDU 338. 3 Cr

EDU 490 Student Teaching

A final field experience for elementary, middle-level, and secondary education students. Individually assigned university supervisors and carefully selected cooperating teachers in local schools provide a 15-week extended apprenticeship into the profession. Student teachers must also attend orientation sessions and seminars on campus designed to complement the student teaching experience. Prerequisite: acceptance by the Student Teaching Committee. Among other factors considered by the committee: (a) attainment of senior status; (b) acceptable academic standing; (c) successful completion of all required professional education courses; (d) successful completion of the writing sample; (e) completion of interview with education faculty; (f) continuing evidence of personal growth and responsibility; and (g) successful completion of Praxis I Core Academic Skills for Educators and Praxis II. 12 Cr

ELA 101 Recreation & Wellness Seminar

This course is designed to help new students learn about the recreation opportunities in Downeast Maine and to further develop their appreciation for the connection between personal wellness and outdoor exploration. Students will gain outdoor skills while reading, discussing and reflecting on the role of outdoor recreation experiences on personal health, as well as in fostering environmental stewardship. The course will also discuss wellness concepts in the field as important components of a canoeing expedition and then review the concepts in greater detail in the classroom and through lab activities. 3 Cr

ELA 112 Community & Place

In this course students will engage in field-based activities to enhance their understanding of communities. By exploring the social, cultural and economic environments of Downeast Maine or their own local communities, students will learn about the history, geography, ethnography, economics or sociology of their region. This course is designed to challenge student assumptions about people and place. Topics vary by semester and instructor.

Prerequisite: ENG 101, or may be taken concurrently. 3 Cr

ELA 113 Natural Environments

The course is an environmental liberal arts course designed to introduce students to the natural world around them and the scientific inquiry process. The topic of the course will usually cover chemical, physical and biological processes centered on the Downeast natural environment. Prerequisite: MAT 12. 4 Cr

ELA 342 Humans & Nature

Based on a wide selection of exemplary writings from diverse times, cultures, and academic disciplines, the course examines the relationship between humans and nature. By reading, discussing, analyzing, and critiquing the readings, students will learn how different disciplines and cultures approach such issues. They will develop critical reading and writing skills while exploring how assumptions, questions, and methods shape disciplinary approaches, cultural understanding, and human behavior. Instructors from various disciplines will teach the multiple sections and may participate in each others' classes as appropriate, thus introducing students to a range of UMM's programs and professors. This survey of a variety of approaches to the single topic of human interactions with nature will establish a shared foundation on which students can build their learning in other discipline-specific core courses and in their majors. Prerequisites: ENG 101 Composition, ELA 101 Recreation & Wellness, ELA 112 Community & Place and Scientific Inquiry core requirement, or junior standing and permission of instructor. 3 Cr

ENG 12 Developmental Writing Lab

Review of and practice in basic writing skills. Course format is primarily that of a writing workshop, but it may include supplementary self-paced computer-assisted instruction. Students in ENG 12 will establish competency in the essentials of written communication (grammar, sentence structure, punctuation, etc.) as well as develop facility in the editing and revision processes. The ultimate goal of the course is to enhance students' ability to think critically, write effectively, and find pleasure in doing both. 3 Cr

ENG 101 Composition

A course to help students improve their skill in expository, analytical, and persuasive writing. Students will gain introductory research skills as they learn to write in relationship to other texts. Reading and grammatical skills are emphasized, so that

students will learn to build solid prose that will be the foundation of their academic career. This course is required of all students. Prerequisite: appropriate English placement examination scores or equivalent 3 Cr

ENG 113 Introduction to Humanities

Introduction to representative works across the humanities: literature, visual art, music, theater, and philosophy. Though the major emphasis falls on literature, half of the class focuses on the other disciplines. With primary interest in the Western tradition, non-Western cultures will also be examined. Students will investigate the ways works speak for and against the times that created them. The study promotes independent thinking skills and cultivates careful communication. Prerequisite: ENG 101, or permission of instructor. 3 Cr

ENG 114 Topics in World Literature

Provides glimpses of diverse worlds and helps students acquire the tools to understand and appreciate good literature. The literature of other cultures and places fascinates and educates the reader, not only because that literature often has enduring excellence but also because it gives us a new world of thought. Topics vary with semester and instructor. Prerequisite: ENG 101 or permission of instructor. 3 Cr

ENG 117 Intro to Literary & Cultural Studies

An introduction to the goals, methods, and implications of literary analysis in the 21st century. The underlying assumption is that there is no such thing as a generic or standard reading of a literary work; all readings take place in and depend on a critical framework, whether that be explicit or implicit. From this starting point, the course is constructed around several critical approaches. One of these is a formalist approach in which students interpret the literary text on the basis of its formal features and stylistic conventions. Students will then explore other opposing and overlapping critical approaches, including but not limited to, feminist, Marxist, historicist, and psychological. Prerequisite: ENG 101 or permission of instructor. 3 Cr

ENG 118 Contemporary Literature

Introduction to award-winning works of contemporary writers from around the world. This course allows students to feel part of a living tradition of writing, to understand the artistic and technical concerns of contemporary writing, and the ideas and attitudes conveyed in that writing. The course is important both for those pursuing historical studies and criticism, and for those engaged in creative

writing. Contemporary Literature will help students acquire an appreciation for good literature and the tools to help them understand and enjoy that literature more fully. Prerequisite: ENG 101 or permission of instructor. 3 Cr

ENG 207 Studies in Composition & Grammar

A study of the basic theories and practices in modern grammar and usage, within the context of improving essay-writing skills. Although the course deals primarily with traditional grammar, introduction to generative, structural and transformational systems may also be considered. While students work on individual writing projects under the direction of the instructor, the class at the same time functions as a group to discuss readings and to critique student work to develop editing and revision skills. Prerequisite: ENG 101 or permission of instructor. 3 Cr

ENG 210 Beginning Creative Writing

An introductory writing course that focuses on the knowledge, attitudes, and techniques essential to successful creative writing. It is open to writers and aspiring writers of various levels of ability providing course prerequisites have been met. Genres treated include poetry, fiction, and creative nonfiction. While much of the course consists of a workshop format, lectures and class discussions cover such topics as sentence effectiveness, writer's block, dynamics of language, metaphor, meter, characterization, plotting, dialogue, narrative point of view, scene construction, revision, and publication. Prerequisite: ENG 101, or permission of instructor. Offered pass/fail or for a letter grade at the option of the instructor. 3 Cr

ENG 212 Topics in Literature

A course designed generally but not exclusively for non-English majors, focusing on a topic of the instructor's choosing and using literature and non-fiction as the documents for class discussion. The course may be repeated since the topics vary (e.g. fantasy, the occult, women writers, African-American literature). Prerequisite: ENG 101 and a one 100-level literature course, or permission of instructor. 3 Cr

ENG 224 Masterpieces of World Literature

This course involves an examination of cultural differences and transformations as seen through the lens of world literature's traditional canon. Students gain exposure to major writers of cultures and time periods other than their own, and analyze a variety of world literature masterpieces to determine how and why such works transcend their particular time and

place. A variety of world views is examined, focusing on such themes as creation, death, love, heroes, and humor. Prerequisite: ENG 101 and a 100-level literature course, or permission of instructor. 3 Cr

ENG 226 Summer Reading List

A self-designed, self-paced, reading-intensive course in which students tackle the literary classics they've always wanted to read. From a Master List of major texts in American and British literature, students select their own summer reading lists that match guidelines provided by the instructor. Students then take individualized quizzes online at any time during the summer. This class entails a heavy reading load, but it does not require papers, participation or attendance. The entire emphasis is on a student's reading experience. Students can take this course up to two times. Prerequisite: one 100-level literature course, or permission of instructor. 1 - 3 Cr

ENG 228 Writer's Market

This one-credit course provides students with the skills, knowledge and means to promote and protect their writing professionally. Students work with the current edition of "Writer's Market" to identify markets for writing projects they are working on or have previously produced. These markets include journals and magazines, book publishers, as well as contests. Students learn how to copyright their writing, to generate effective letters of inquiry and to explore possibilities of finding a literary agent. Students apply their knowledge by submitting one or more original pieces of writing to an appropriate market. Students work individually with a faculty supervisor. Course may be repeated up to three times. Prerequisite: ENG 101 and one of the following: ENG 210 Beginning Creative Writing, ENG 207 Studies in Composition & Grammar, ENG 208 Technical Writing, or permission of instructor. 1 Cr

ENG 231 Techniques of Poetry

This course provides an opportunity to study poetry through the dual processes of observation and imitation, to understand how specific writing techniques produce effective poetry. Students are encouraged to study and duplicate-within the context of their own individual writing styles-the techniques employed by successful poets. Aspects of both a literature course and writing course are thus combined in pursuit of a pragmatic working knowledge of the techniques of poetry. Students will critically examine and then experiment for themselves with various forms of poetry, writing and revising both critical essays and poetry, reading and

sharing their work in small writing workshop groups. Prerequisite: ENG 101 with grade of B- or better, or permission of instructor. 3 Cr

ENG 232 Techniques of Fiction

A survey course in contemporary fiction. This course focuses on literary works primarily as products of the writing process. Rather than interpreting stories or analyzing them with regard to a cultural milieu, the class will treat them as case studies for technique. The artists whose works have been selected for this course are generally innovators-that is, writers exploring the boundaries of traditional narrative, in both form and style. While the course is intended principally for students who are themselves interested in writing fiction, any student of literature may find such an approach useful and interesting. Prerequisite: ENG 101 with grade of B- or better, or permission of instructor. 3 Cr

ENG 233 Techniques of Creative Non-Fiction

Creative nonfiction is a genre defined by what it is not. It differs from other forms of nonfiction by possessing both an apparent subject and a deeper meaning, by its freedom from the usual journalistic requirements of timeliness and urgency, by taking advantage of such narrative devices as character, plot and dialogue, by its sense of reflection and finished thought, and by its serious attention to the craft of writing and aesthetic sensibility that goes well beyond the journalistic "inverted pyramid" style. This course provides the opportunity to study creative nonfiction through the dual processes of observation and imitation, to understand how specific writing techniques produce effective literature. Students are encouraged to study and duplicate-within the context of their own individual writing styles-the techniques employed successfully by published writers of creative nonfiction. Prerequisite: ENG 101 with grade of B- or better, or permission of instructor. 3 Cr

ENG 236 Professional Editing

A course that covers the basics of professional editing. Working for the UMM Press, students acquire the practical experience of producing a critical edition. The course introduces students to standard publication processes and the major styles, reference works, and tools of editorial work. Emphasis will be placed on the development of skills in proofreading, copyediting, and editorial judgment, as students learn the different functions of proofreaders and copy editors, the vocabulary of print and document design, and acquire a good understanding of the editorial tasks involved in preparing a critical edition for publication. Course is

repeatable for credit, but may only count once toward program requirements. Prerequisite: ENG 101, ENG 207, or permission of instructor. 3 Cr

ENG 242 Electronic Publishing

This course will be an overview of electronic and periodical publishing and a practicum for students who would like to work in these fields. The course will survey broadly a variety of periodicals both in terms of subject and of time, with the emphasis being on the small-scale periodical, especially the literary magazine. Prerequisite: ENG 101; ART 101 or ART 102, 100-level literature course; or permission of instructor. 3 Cr

ENG 302 Studies in Novel

A study of the growth and structure of the novel. The picaresque and the psychological, the comedy of manners, the historical, the gothic, the stream-of-consciousness, and other forms may be studied. The concept of the open novel, minimalism, and the journalistic novel may be explored. The novels are chosen from the canons of American, British, and world literature. Prerequisite: ENG 117 and 6 cr of 200-level English courses, or permission of instructor. 3 Cr

ENG 325 Masterpieces of British Literature

Survey of English literature from the Anglo-Saxon period through Modernism. Students will gain familiarity with important authors and works from each period of British history. Students will also gain an insight into the changes in style and topic as reflected in the works of successive periods. More significantly, they will learn to recognize the period of a work by its style and be able to infer key ideas about the work from its chronological placement. Prerequisite: ENG 101 and a 100-level literature course, or permission of instructor. 3 Cr

ENG 327 Masterpieces of American Literature

In this course students encounter the many faces of American literature. Selected works come from the colonial to the contemporary period of the United States by major writers from different backgrounds and points of view. Special emphasis rests on the multicultural nature of the American experience, and course readings reflect this diversity. This survey will typically be organized around a topic or theme - such as revolutionary struggle, iconoclasm, or the construction of the self. Students will explore readings in terms of artistry as well as impact on history - how the culture of the book in the United States shapes perceptions and gives a voice to collective goals. Learning activities may include community service as well as close readings,

discussion, and formal and informal writing. Prerequisite: ENG 101 and a 100-level literature course, or permission of instructor. 3 Cr

ENG 330 A Sense of Place

A course offering students the opportunity to participate in a program emphasizing study and travel. Periodic trips have been planned to American or European locales in order that participants gain a better understanding of historic events and/or the people associated with these locales. 1 - 3 Cr

ENG 371 Intermediate Creative Writing Workshop

Intermediate Creative Writing serves as a workshop for writers at the intermediate level. The course, interdisciplinary in its approach, involves writers working in a variety of genres in order to improve their expertise in the genre of their choice. Like Advanced Creative Writing, any given class may include novelists, short story writers, poets, screenwriters and writers of creative non-fiction. Prerequisite: ENG 210 or permission of instructor. 3 Cr

ENG 441 Professional Project

This course, which runs as a directed study, may be a senior thesis in literary studies, an advanced project in creative writing, an internship or other pre-professional experience, or an advanced book arts project. Prerequisite: Successful completion of Junior-Year Portfolio Review. 3 Cr

ENG 442 Senior Project

This course, which runs as a directed study, may be a senior thesis in literary studies, an advanced project in creative writing, an internship or other pre-professional experience, or an advanced book arts project. All students completing an advanced writing project will be required to form a faculty committee before the beginning of the semester. Prerequisite: Successful completion of Junior-Year Portfolio Review. 3 - 6 Cr

ENG 451 Chaucer

An in-depth study devoted to the close examination of Chaucer's major works. Students will build on their previous knowledge of Chaucer, medieval culture, and literary theory, especially in their completion of an in-depth research project. Students will also learn to read Chaucer's language and appreciate his importance in the development of English literature. Prerequisite: 6 cr of 300-level English courses or permission of instructor. 3 Cr

ENG 453 Shakespeare

An upper-level seminar devoted to the close examination of Shakespeare's works, culture, and influence. Students will build on their previous knowledge of Shakespeare, early modern culture, and literary theory, especially in their completion of an in-depth research project. Prerequisite: 6 cr of 300-level English courses or permission of instructor. 3 Cr

ENG 471 Advanced Creative Writing Workshop

A workshop for writers at an advanced level. The course is interdisciplinary in scope. Participants work in a variety of genres. Any given class might include novelists, short story writers, poets, playwrights, screenwriters, and writers in creative nonfiction. Students will submit work on a regular basis for class critiquing and will read and critique the work of others in the class. Some work submitted might include revised versions of previously submitted work. Prerequisite: 300-level writing course or permission of instructor. 3 Cr

ENV 102S Atlantic Salmon Conservation Projects

Students in this course work with local watershed councils, state and federal agencies in the recovery of the endangered Atlantic salmon. As part of these projects, students will learn about the life history of the Atlantic salmon, its freshwater environment, the threats to its survival, and the processes underway to facilitate its recovery. Students learn how to measure water quality parameters, assess salmonid habitat, and the use of macroinvertebrates as biological indicators of water and habitat quality. Students may take the course more than once for additional credit with permission of the instructor. 2 Cr

ENV 103 Oceanography

This interdisciplinary course is an introduction to a variety of physical, chemical, geological and biological aspects of marine and oceanic environments. In particular, we will examine how physical processes shape biological patterns and interactions in the oceans. Students will become familiar with local benthic and pelagic marine communities, their ecology and their animals and plants. Topics will include ocean circulation, larval biology, plate tectonics, formation of ocean basins, ocean structure and chemistry, waves, tides, biology of marine life, food webs, productivity, ecology of marine communities and human effects on the oceans. Through the process of scientific inquiry, students will learn to recognize patterns, formulate and test hypotheses and collect data in the field and laboratory using a variety of hands-on oceanographic

techniques. Prerequisite: MAT 12, or permission of instructor. 4 Cr

ENV 112 Environmental Issues

A writing-intensive course providing an introduction to the broad areas of concern in environmental studies. Topics of consideration include an overview of ecosystems; population growth of plants, animals and humans; species extinction and preservation; natural resource use and conservation; air, water, and soil pollution and control; agriculture and world food production; 'pest' control; solid waste production and disposal. Prerequisite: ENG 101, or permission of instructor. 3 Cr

ENV 114 Environmental Studies: Issues & Actions

The course is a project-based course designed to enable students to participate in an environmental hands-on learning experience. The project will vary from year to year. Students will be expected to work in teams and help design, implement and report on their project. Interim project reports, oral discussions/presentation and an overall final presentation are requirements of the course. The course may be taken multiple times for credit. Students will enroll in the section that corresponds to their academic standing. There will be increasing responsibility and expectations as the course number increases. 1 - 2 Cr

ENV 201 Special Topics in Environmental Studies

A seminar providing in-depth study of a selected topic of environmental concern. Examples of topics include environmental toxicology, conservation ecology, patterns in world population growth, the limits to growth, world hunger and food production, global issues in ecology, solid waste disposal, and methods of environmental education. Since the topics studied change each year, students may enroll in the course more than once for a maximum of 9 cumulative cr. Prerequisite: BIO 245, ENV 112, or permission of instructor. May be offered pass/fail at option of instructor. 2 - 3 Cr

ENV 212 Atlantic Salmon Conservation Projects

Students in this course work with local watershed councils, state and federal agencies in the recovery of the endangered Atlantic salmon. As part of these projects, students will learn about the life history of the Atlantic salmon, its freshwater environment, the threats to its survival, and the processes underway to facilitate its recovery. Students learn how to measure water quality parameters, assess salmonid habitat, and the use of macroinvertebrates as biological indicators of water and habitat quality. Students may

take the course more than once for additional credit with permission of the instructor. Prerequisite: ENV 102. 2 Cr

ENV 214 Environmental Studies: Issues & Actions

The course is a project-based course designed to enable students to participate in an environmental hands-on learning experience. The project will vary from year to year. Students will be expected to work in teams and help design, implement and report on their project. Interim project reports, oral discussions/presentation and an overall final presentation are requirements of the course. The course may be taken multiple times for credit. Students will enroll in the section that corresponds to their academic standing. There will be increasing responsibility and expectations as the course number increases. 1 - 2 Cr

ENV 220 Special Topics in Field Ornithology

A course, or series of courses, on a variety of topics for birdwatchers, amateur and professional ornithologists, and others interested in the lives of birds in their natural habitats. May be repeated for credit with different topics. Students should enroll at a level consistent with their ornithological experience. May be offered pass/fail at option of instructor. 2 - 3 Cr

ENV 224 Scientific Writing & Presentation

Students in this course will further develop their communication skills primarily by focusing on environmental topics. They will strive to be both skillful consumers and providers of scientific and technical information related to environmental issues, problems and solutions. Each semester the course will focus on one or two themes or projects. Students will need to read and interpret the primary literature to establish the current understanding of the field, perform a limited study of their own and finally present their findings. Students will compare how information is presented to a lay audience versus the scientific community and practice the skill themselves. Students will make presentations to both scientific and lay audiences. There will be a one-hour lecture and two-hour lab/discussion period each week. Prerequisite: ENG 101 and SPE 104, or permission of instructor. 2 Cr

ENV 226 Undergraduate Research in Environmental Studies

The objective of this course is for the student to conduct an original research project under the supervision of a faculty member. The student will work in consultation with a research advisor to

develop a research plan and undertake an environmentally related research project. A final written report is required. A grade of pass or fail is awarded. Course may be taken multiple times for credit. Prerequisite: Approval by a research advisor. 1 - 2 Cr

ENV 301 Special Topics in Environmental Studies

A seminar providing in-depth study of a selected topic of environmental concern. Examples of topics include environmental toxicology, conservation ecology, patterns in world population growth, the limits to growth, world hunger and food production, global issues in ecology, solid waste disposal, and methods of environmental education. Since the topics studied change each year, students may enroll in the course more than once for a maximum of 9 cumulative cr. Prerequisite: BIO 245, ENV 112, or permission of instructor. May be offered pass/fail at option of instructor. 2 - 3 Cr

ENV 305 Research Seminar

This course is designed to allow students to assimilate the multiple aspects of independent research in a group setting. There are six primary components of the course: 1) review of primary literature pertinent to the project, 2) presentations by invited experts in the field, 3) discussion of stakeholder perspectives and options for effective communication of data, 4) training and education on new technologies and techniques, 5) student presentations (data presentation and summary will be required) and 6) open discussion and troubleshooting of individual research projects. The specific research topics addressed will change as the focus of the various research projects changes. This course can be taken multiple times. Co-requisites: Participation in a research project, such as Undergraduate Research in Environmental Studies, an Independent Study research project, or permission of instructor. 1 Cr

ENV 312 Atlantic Salmon Conservation Projects

Students in this course work with local watershed councils, state and federal agencies in the recovery of the endangered Atlantic salmon. As part of these projects, students will learn about the life history of the Atlantic salmon, its freshwater environment, the threats to its survival, and the processes underway to facilitate its recovery. Students learn how to measure water quality parameters, assess salmonid habitat, and the use of macroinvertebrates as biological indicators of water and habitat quality. Students may take the course more than once for additional credit with permission of the instructor. Prerequisites: ENV 212. 2 Cr

ENV 314 Environmental Studies: Issues & Actions

The course is a project-based course designed to enable students to participate in an environmental hands-on learning experience. The project will vary from year to year. Students will be expected to work in teams and help design, implement and report on their project. Interim project reports, oral discussions/presentation and an overall final presentation are requirements of the course. The course may be taken multiple times for credit. Students will enroll in the section that corresponds to their academic standing. There will be increasing responsibility and expectations as the course number increases. 1 - 2 Cr

ENV 320 Special Topics in Field Ornithology

A course, or series of courses, on a variety of topics for birdwatchers, amateur and professional ornithologists, and others interested in the lives of birds in their natural habitats. May be repeated for credit with different topics. Students should enroll at a level consistent with their ornithological experience. May be offered pass/fail at option of instructor. 2 - 3 Cr

ENV 326 Undergraduate Research in Environmental Studies

The objective of this course is for the student to conduct an original research project under the supervision of a faculty member. The student will work in consultation with a research advisor to develop a research plan and undertake an environmentally related research project. A final written report is required. A grade of pass or fail is awarded. Course may be taken multiple times for credit. Prerequisite: Approval by a research advisor. 1 - 2 Cr

ENV 401 Special Topics in Environmental Studies

A seminar providing in-depth study of a selected topic of environmental concern. Examples of topics include environmental toxicology, conservation ecology, patterns in world population growth, the limits to growth, world hunger and food production, global issues in ecology, solid waste disposal, and methods of environmental education. Since the topics studied change each year, students may enroll in the course more than once for a maximum of 9 cumulative cr. Prerequisite: BIO 245, ENV 112, or permission of instructor. May be offered pass/fail at option of instructor. 2 - 3 Cr

ENV 414 Environmental Studies: Issues & Actions

The course is a project-based course designed to enable students to participate in an environmental hands-on learning experience. The project will vary from year to year. Students will be expected to work in teams and help design, implement and report on their project. Interim project reports, oral discussions/presentation and an overall final presentation are requirements of the course. The course may be taken multiple times for credit. Students will enroll in the section that corresponds to their academic standing. There will be increasing responsibility and expectations as the course number increases. ENV 414 is the capstone course for the Environmental Studies program. Students in ENV 414 will be expected to take a leadership role in the class project and to write a significant paper that incorporates primary literature pertinent to the project. 1 - 2 Cr

ENV 420 Special Topics in Field Ornithology

A course, or series of courses, on a variety of topics for birdwatchers, amateur and professional ornithologists, and others interested in the lives of birds in their natural habitats. May be repeated for credit with different topics. Students should enroll at a level consistent with their ornithological experience. May be offered pass/fail at option of instructor. 2 - 3 Cr

FIA 103 First-Year Seminar

This course is an introduction to the interdisciplinary fine arts, and, as such, it services to introduce the first-year IFA students to the various arts in the program and the interrelationships between and among them. Through a series of creative activities, reading, writing, presentations, and arts events, students will come to an understanding of the technologies and methodologies through which these arts are created and appreciated. 1 - 3 Cr

FIA 213 Sophomore Seminar

This course will build both on the First-Year Seminar and students' ongoing work in the Interdisciplinary Fine Arts program. Students will continue their active exploration of the interdisciplinary fine arts, as they collaborate in improvisational and formal arts productions, and continue to develop an understanding of the technologies and methodologies through which these arts are created and appreciated. Program faculty will direct students to submit a portfolio of creative work and a written reflective narrative for assessment. Prerequisite: FIA 103 or sophomore standing. 3 Cr

FIA 219 Special Topics in Interdisciplinary Fine Arts

These courses will allow for further study in special fields within the fine arts. With an emphasis on interdisciplinary approaches, students will come to understand more fully a specific field or approach to the arts, to demonstrate the practical applications of this field of knowledge, to carry out appropriate research on limited subjects within the field, and to work in a collaborative atmosphere of creative expression. 1 - 3 Cr

FIA 319 Special Topics in Interdisciplinary Fine Arts

These courses will allow for further study in special fields within the fine arts. With an emphasis on interdisciplinary approaches, students will come to understand more fully a specific field or approach to the arts, to demonstrate the practical applications of this field of knowledge, to carry out appropriate research on limited subjects within the field, and to work in a collaborative atmosphere of creative expression. 1 - 3 Cr

FIA 323 Junior Seminar

This course will build both on the earlier Interdisciplinary Fine Arts seminars and students' ongoing work in the BAIFA program. Students will continue with their active exploration of the interdisciplinary fine arts, as they collaborate in improvisational and formal arts productions, and continue to develop an understanding of the technologies and methodologies through which these arts are created and appreciated. In addition, juniors will begin preparations for their Senior Seminar and Senior Project. Prerequisite: FIA 213 or junior standing. 3 Cr

FIA 400 Senior Seminar

Senior Seminar offers students the opportunity to reflect on their learning and to share what they have learned with others in the program. The Senior Seminar prepares students for the Senior Project. The purpose of the Senior Seminar is threefold: (1) to provide an opportunity for students to assess their learning; (2) to provide an opportunity for the program to assess its effectiveness; (3) to provide an opportunity through their reflections for students to share their experiences with others. The primary activity of the Senior Seminar is a portfolio review and assessment. Students will gather their work from their courses into a portfolio and write a narrative that will suggest the objectives they have reached and how they have reached them through a combination of courses and experiences. They will also use the Senior Seminar as a place to propose and justify their

Senior Projects as an outgrowth and culmination of their learning. While students will work independently with a mentor from their concentration on the portfolio, all those enrolled in Senior Seminar will meet periodically to discuss common experiences and readings. They will share their portfolios with each other and make a formal presentation of their proposed culminating project. Finally, they will engage in a series of reflections upon the shape and usefulness of the program, which become part of the assessment for the program. Prerequisite: junior or senior standing in the program. 3 Cr

FIA 419 Special Topics in Interdisciplinary Fine Arts

These courses will allow for further study in special fields within the fine arts. With an emphasis on interdisciplinary approaches, students will come to understand more fully a specific field or approach to the arts, to demonstrate the practical applications of this field of knowledge, to carry out appropriate research on limited subjects within the field, and to work in a collaborative atmosphere of creative expression. 1 - 3 Cr

FIA 460 Senior Project

The capstone course in the Interdisciplinary Fine Arts Program. Students design and produce a significant work or presentation that meets the professional standards demanded of one working independently as an artist in the community. A faculty mentor will work closely with the student. Students will also meet with a committee composed of 3 faculty members or visiting artists. Prerequisite: FIA 400 or permission of instructor. Students should have completed a proposal in Senior Seminar and have acquired a mentor and a committee. 3 Cr

FYS 101 First-Year Seminar

This course is intended to be an orientation to the academic community at UMM. The course will introduce students to the mission of UMM and our vision of the campus's role in Downeast Maine and beyond, will help them integrate into the UMM community as they build relationships with peers and with faculty/staff and will provide knowledge and skills useful in making a successful transition to college life in Machias. 1 - 3 Cr

GEO 101 Intro to Geography

A course designed to introduce the student to world regional geography by studying developed and developing realms. Also surveyed are topical or systematic fields including geomorphology, climatology, geography of development, and urban,

historical, economic, cultural, medical, population, resource and political geography. 3 Cr

GIS 201 Special Topics in Geographic Information Systems (GIS)

This special topics course gives students hands-on experience using the procedures, hardware, and software of GIS including the following: designing a field study; gathering and storing various forms of GIS data; data management, manipulation, summarization and analysis; presentation of results. Specific offerings will permit the students to participate in studies of a variety of regional sites or areas of interest, such as the Roosevelt International Park on Campobello Island, coastal trail systems of Downeast Maine, etc. Whenever possible the specific topic will be designed and coordinated with local regional agencies. Prerequisite: permission of instructor. 2 - 3 Cr

GIS 204 Introduction to Global Positioning System

Students will gain a knowledge of the Global Positioning System, using handheld receivers in the field to navigate and gather local information and entering the data into a computer to make maps. Topics to be covered include the basic principles of the technology, uses of GPS, sources of error, methods used to minimize error and prevent data loss, basic geodesy related to GPS and basic mapping software. Students will do several outdoor, hands-on activities with handheld Garmin and Trimble receivers, as well as mapping activities in the laboratory. They will be assessed on their laboratory worksheets, quizzes and a simple service project. Prerequisites: Basic knowledge of Microsoft Windows. Experience with spreadsheets and high school algebra are helpful. 1 - 2 Cr

GIS 230 Geographic Information Systems (GIS) Applications I

Understanding the fundamentals of a GIS through lecture, readings and computer activities. Students will learn to use a specific GIS software system and to define and complete a simple GIS project using existing data. This computer-intensive course includes a detailed discussion of what a GIS is, why GIS is being increasingly used today, sample applications, basic map concepts, how geographic and descriptive data are stored in the computer, and the steps in a typical GIS project. Project discussions will focus on defining project objectives, building and managing the digital database, identifying the needed data, locating and acquiring the data in digital form, performing the analysis, and presenting results. Prerequisite: knowledge of Windows recommended. 4 Cr

GIS 301 Special Topics in Geographic Information Systems (GIS)

This special topics course gives students hands-on experience using the procedures, hardware, and software of GIS including the following: designing a field study; gathering and storing various forms of GIS data; data management, manipulation, summarization and analysis; presentation of results. Specific offerings will permit the students to participate in studies of a variety of regional sites or areas of interest, such as the Roosevelt International Park on Campobello Island, coastal trail systems of Downeast Maine, etc. Whenever possible the specific topic will be designed and coordinated with local regional agencies. Prerequisite: permission of instructor. 2 - 3 Cr

GIS 312 Municipal Applications of Geographic Information Systems

This hands-on course provides the basic skills needed to use geographic information systems software, data and analysis to manage municipal land records, support decision-making in local government and create zoning maps. Students will primarily use ArcGIS software, the industry standard; the class will also explore low- and no-cost GIS software appropriate for municipal applications. Students complete a service project for a real-world client, applying course skills and content. The class will include streaming lectures, hands-on lab exercises and real-world assignments and projects. Students must have a computer that meets or exceeds the system requirements for ArcGIS software and has a broadband internet connection, or they must do required exercises and assignments in the laboratory. A one-year student software license is provided. Prerequisite: GIS 230, or permission of instructor. 3 Cr

GIS 330 Geographic Information Systems Applications II

This is an intermediate course for students who have had some introduction to GIS. The course focuses on grid-based data models for visualization, modeling and analysis. Assessment will be based on problem sets, lab work and a final project. Readings, assignments, activities and discussions will cover: the raster data model, generating and working with grid data, georeferencing images and grids, basic remote sensing technologies, visualizing raster data sets, interpolation methods for generating continuous surface data, mathematical operations with grid data for spatial analysis, map algebra and grid-based modeling, basic modeling, evaluating and documenting error and uncertainty, ethics and accountability in spatial analysis, modeling and

visualization. Prerequisite: GIS 230 GIS Applications I or permission of instructor. 4 Cr

GIS 401 Special Topics in Geographic Information Systems (GIS)

This special topics course gives students hands-on experience using the procedures, hardware, and software of GIS including the following: designing a field study; gathering and storing various forms of GIS data; data management, manipulation, summarization and analysis; presentation of results. Specific offerings will permit the students to participate in studies of a variety of regional sites or areas of interest, such as the Roosevelt International Park on Campobello Island, coastal trail systems of Downeast Maine, etc. Whenever possible the specific topic will be designed and coordinated with local regional agencies. Prerequisite: permission of instructor. 2 - 4 Cr

GIS 420 Remote Sensing & Image Analysis

This course introduces remote sensing technologies used in mapping, with an emphasis on satellite imagery. Using industry standard software and imagery, students learn basic image analysis for oceanographic modeling, land cover change detection, climate analysis and similar applications. The course combines lecture, discussion and mapping exercises which cover the remote sensing technologies and image formats, the physics of light and optics, potential sources of error, analytical methods and applications of remote sensing in a variety of fields. The semester culminates in a final project. Prerequisites: GIS 230 and GIS 330, or permission of instructor. 4 Cr

GIS 424 Advanced Projects in Geographic Information Systems

Students pursue individual, advanced service-learning or advanced academic projects in GIS, meeting in class for critiques, trouble-shooting labs and seminars relevant to project topics or methods. Project topics may vary widely. Students will be expected to work closely with a community or faculty client to assess and respond to their needs, answer questions and provide them with maps, data and documentation. Through this work, students learn to plan, manage, execute and document a multi-faceted GIS project, and acquire skills with direct applications to their future careers. Prerequisites: GIS 230 and GIS 330, or permission of instructor. 4 Cr

GIS 426 Community Applications in Geographic Information Systems

Students work together under the instructor's guidance for a single community client to perform a professional-quality service project using geographic information systems (GIS) as a decision-support and planning tool. Projects might include a town's comprehensive plan, environmental conservation planning, economic development, recreation planning, emergency response management or similar applications where GIS can assist communities in setting priorities, making choices or planning for the future. Students will be expected to work closely with clients and/or community residents to assess and respond to their needs, answer questions and provide them with maps, data and documentation. In most cases, students will present their findings to the clients or their constituents. Through this work, students learn to plan, manage, execute and document a multi-faceted GIS project, skills with direct applications to the workforce. Prerequisites: GIS 230 and GIS 330, or permission of instructor. 4 Cr

GIS 428 Web-Based Maps, Applications & Services

This is a practical and applied course covering design and delivery of web and mobile maps and applications, fundamentals of online databases, hosting and serving data and map services and basics of server management. The course will cover a variety of software and server providers, including Esri, Google and open source, focusing mainly on those with the greatest market share and practical value in the workplace. Students will work with services and cloud services in the course, which culminates in a real-world service project. Prerequisite: GIS 230 and GIS 330, or permission of instructor. 3 Cr

GIS 429 Geographic Information Systems Internship

Geospatial technology is now embedded in nearly every field and discipline using a wide array of applications. Increasingly, employers expect practical skills in applying geospatial tools to solve real-world problems. This course provides students with experience working with geospatial data, software, hardware and techniques in the workplace. Interns apply for positions (paid or unpaid) in a work site outside the traditional classroom environment to conduct projects using geospatial technology required for the internship. Academic credit for an approved work experience is determined by the student's faculty sponsor and the university coordinator after an examination of the following criteria: nature of

the work to be performed, the proposed learning objectives, the number of weeks involved and the anticipated hours per week. Students must apply to the coordinator for cooperative education/internship before registering for the class. Students must log 120 hours to earn the required three credits and must demonstrate satisfactory performance and application of geospatial technology via a student report on the internship experience and supervisor evaluation and documentation. Prerequisites: GIS 230, acceptance by internship supervisor and approval by GIS director and director of cooperative education/internships. GIS 330 or GIS 312 is recommended. 3 Cr

GIS 431 Introduction to Geostatistics

This course introduces the basic principles of geostatistics, including descriptive statistics such as variance and covariance, spatial autocorrelation, distribution and dispersion and spatial trends. Students will also learn advanced methods of estimation with spatial interpolation, as well as methods for analyzing error and uncertainty. The course combines lectures, discussion and laboratory exercises. Students are assessed on problem sets and a simple final project. Prerequisites: GIS 230, GIS 330 and MAT 215, or permission of instructor. 4 Cr

HON 220 Soliya: Cross-Cultural Communication

Soliya's Connect Program is a unique cross-cultural education program that enables college students in the US and predominantly Muslim countries in the Middle East to collaboratively explore the relationship between the US and Muslim World with the aim of improving intercultural awareness and understanding. Participating students from across the globe literally see and hear one another in a rich and intimate online environment utilizing the latest in videoconferencing and online collaboration technology. Recognizing the profound role of media in shaping young adults' perceptions of other cultures, Soliya trains participating students to create and exchange video segments illustrating their perspectives on world events. Prerequisite: Sophomore standing and GPA of 3.0 or better, or permission of instructor. 3 Cr

HON 312 Soliya Advanced Projects

Activities are designed to enable students to further expand upon skills they began to develop through their participation in the initial Soliya Connect program. Participating students will only be working on one of the following projects at a time. They will be able to participate again in another project if chosen. Each program will involve a small number of US and Middle Eastern students communicating regularly through the videoconferencing application

used for the Connect program. Currently the advanced projects include facilitation training, collaborative video project, and student leadership/developing cooperative actions, each led by highly skilled educators within each field. Prerequisite: Sophomore standing, GPA of 3.0 or better, C or better in HON 220, or permission of instructor. 1 - 3 Cr

HON 313 Crossing Borders

Crossing Borders is an international learning and teaching module which allows students to discover ways of bringing down barriers and boundaries in a global classroom environment. The participants will cross borders in many ways, because they will cooperate with peers from other countries on joint tasks, communicate in a multinational community and compare ways to empower and include marginalized populations in different countries. Course includes a travel component. Prerequisite: Junior Standing. 3 Cr

HTY 115 World History to 1500

The first half of the world history sequence covers the time from the first emergence of Homo Sapiens to the establishment of regular, ongoing, contact between the Americas, Europe, Africa, and Asia. This lengthy period saw the biological development and worldwide dispersal of human beings, the emergence of agriculture, cities, writing, organized religions, complex social organization and political institutions, and the creation of distinct cultural traditions. The course features cultural interactions and comparisons. 3 Cr

HTY 116 World History since 1500

The second semester of the sequence examines world history from the 16th century to the present. This much shorter period saw enormous increases in trade, cultural, political and military interaction among all regions of the world. A major theme of this era is colonialism, the rise of European state, economic, and cultural power, and the reactions of the non-Western world to that power. 3 Cr

HTY 122 American History for Elementary Teachers

This course is designed to provide sufficient content for pre-service elementary teachers so that they can effectively incorporate a broad understanding of the major events, themes and eras of American history into the elementary school curriculum. Students will also acquire important analytical skills and an understanding of historical concepts related to American culture and society. The course is required for all Elementary Education majors. Prerequisite:

ENG 101 and HTY 115 or 116, or permission of instructor. 3 Cr

HTY 219 Topics in History

The topic of this course varies in response to student interest and faculty availability and expertise. Prerequisite: HTY 115 or HTY 116, or permission of instructor. 3 Cr

HTY 301 Maine and Local History

A chronological survey of Maine's economic, cultural, and political life from prehistory to the present. Themes include the impact of national developments on Maine, the role of location and physical environment in shaping life here, and sources of internal tension and division. Independent research on local history is a major component of the course. Prerequisite: HTY 115 or HTY 116, or permission of instructor. 3 Cr

HTY 307 American Economic History

An examination of the development and growth of the United States economy from Native American settlements to the present. Topics include sectoral history (finance, transport, maritime, etc.), the economics of war and slavery, the depression, post-war policies and prospects for the future. 3 Cr

HTY 320 Topics in History

This course is organized around a particular theme or issue that spans different times and locations. The course, which may be taken more than once, allows students to pursue the study of topics not covered in-depth in other courses. Recent offerings have included Tyrannies of the Twentieth Century, Comparative Slavery, and the British Empire. Prerequisite: HTY 115 or HTY 116, or permission of instructor. 3 Cr

HTY 321 World Environmental History

World Environmental History is an upper-level seminar that explores human and environmental connections in a variety of societies. The course further explores the material, social and cultural significance of those connections. It is not a traditional survey course, nor does it aim to be comprehensive; rather the course offers a broad examination of the subject with specificity derived from case studies, research projects and scholarly articles. World Environmental History explores human interactions with their environment over time and in different places. Prerequisite: ENG 101 and either HTY 115 or HTY 116, or permission of instructor. 3 Cr

HTY 330 A Sense of Place

A course offering students the opportunity to participate in a program emphasizing study and travel. Periodic trips have been planned to American or European locales in order that participants gain a better understanding of historic events and/or the people associated with these locales. 1 - 3 Cr

HTY 351 Topics in American Colonial History

Topics in Colonial American History provides an in-depth exploration of an issue or development pertinent to Colonial Americans between the encounters of the 16th century and the time of the American Revolution. Topics might include Indian-White relations, American identity, regional patterns, religions, or early society. Prerequisite: HTY 115 or HTY 116, or permission of instructor. 3 Cr

HTY 352 Topics in 19th-Century American History

Topics in 19th-century American History focuses on specific trends and issues relevant to the period. Topics could include Civil War and Reconstruction, popular culture, reform efforts, class and labor issues, race and ethnicity, or religious and intellectual developments. Prerequisite: HTY 115 or HTY 116, or permission of instructor. 3 Cr

HTY 353 Topics in Modern American History

Topics in Modern American History examines themes emerging over the course of the American 20th century. Topics might include the nation's rise to global power, immigration, war and society, social movements, the role of government, or changes in the family. Prerequisite: HTY 115 or HTY 116, or permission of instructor. 3 Cr

HUM 113 Introduction to Humanities

Introduction to representative works across the humanities: literature, visual art, music, theater, and philosophy. Though the major emphasis falls on literature, half of the class focuses on the other disciplines. With primary interest in the Western tradition, non-Western cultures will also be examined. Students will investigate the ways works speak for and against the times that created them. The study promotes independent thinking skills and cultivates careful communication. Prerequisite: ENG 101, or permission of instructor. 3 Cr

IND 301 Independent Study and/or Research

This course allows students the opportunity to pursue in depth or in alternative ways areas of study not otherwise readily available. Students contemplating such an approach must consult with their faculty advisors well in advance of the development of a

prospectus, which should outline the purpose of the study and describe the proposed learning outcomes, methodology, and evaluation techniques. An approved application for independent study must be filed with the Registrar's Office at the time of registration for courses. The student may enroll in only one such course per semester and may accumulate a total of 12 cr toward a degree through independent study. Exceptions to these restrictions may be made with the approval of the Vice President for Academic Affairs. May be taken pass/fail at the option of instructor. Applicants must have at least junior standing in a degree program with a cumulative grade point average of 3.0 or above in their major. .5 - 4 Cr

IND 302 Independent Study and/or Research

This course allows students the opportunity to pursue in depth or in alternative ways areas of study not otherwise readily available. Students contemplating such an approach must consult with their faculty advisors well in advance of the development of a prospectus, which should outline the purpose of the study and describe the proposed learning outcomes, methodology, and evaluation techniques. An approved application for independent study must be filed with the Registrar's Office at the time of registration for courses. The student may enroll in only one such course per semester and may accumulate a total of 12 cr toward a degree through independent study. Exceptions to these restrictions may be made with the approval of the Vice President for Academic Affairs. May be taken pass/fail at the option of instructor. Applicants must have at least junior standing in a degree program with a cumulative grade point average of 3.0 or above in their major. 1 - 3 Cr

IND 401 Independent Study and/or Research

This course allows students the opportunity to pursue in depth or in alternative ways areas of study not otherwise readily available. Students contemplating such an approach must consult with their faculty advisors well in advance of the development of a prospectus, which should outline the purpose of the study and describe the proposed learning outcomes, methodology, and evaluation techniques. An approved application for independent study must be filed with the Registrar's Office at the time of registration for courses. The student may enroll in only one such course per semester and may accumulate a total of 12 cr toward a degree through independent study. Exceptions to these restrictions may be made with the approval of the Vice President for Academic Affairs. May be taken pass/fail at the option of instructor. Applicants must have at least

junior standing in a degree program with a cumulative grade point average of 3.0 or above in their major. 1 - 6 Cr

IND 402 Independent Study and/or Research

This course allows students the opportunity to pursue in depth or in alternative ways areas of study not otherwise readily available. Students contemplating such an approach must consult with their faculty advisors well in advance of the development of a prospectus, which should outline the purpose of the study and describe the proposed learning outcomes, methodology, and evaluation techniques. An approved application for independent study must be filed with the Registrar's Office at the time of registration for courses. The student may enroll in only one such course per semester and may accumulate a total of 12 cr toward a degree through independent study. Exceptions to these restrictions may be made with the approval of the Vice President for Academic Affairs. May be taken pass/fail at the option of instructor. Applicants must have at least junior standing in a degree program with a cumulative grade point average of 3.0 or above in their major. 1 - 3 Cr

LAT 101 Latin I

As an introduction to the Latin language and the Ancient Roman world, this course will enable students to read and translate basic passages in Latin, to become familiar with the culture and history of Rome, and to enhance their grammar and vocabulary in other languages, especially English. No previous experience in foreign languages required. 3 Cr

LAT 102 Latin II

Building on the introductory study of the language and culture of the Ancient Roman world, this course will further students' ability to translate more challenging passages in Latin, allow them to explore more deeply the culture and history of Rome, and further enhance their grammar and vocabulary in other languages, especially English. Prerequisite: LAT 101 or permission of instructor. 3 Cr

MAN 301 Management

Designed to present management as a science, an art, and a profession. The course emphasizes both the theoretical and the practical, presenting management as a process of utilizing organizational resources to achieve specific objectives through the functions of planning, organizing, leading, and controlling. 3 Cr

MAN 302 Small Business Management & Entrepreneurship

This course is designed for business majors but is not exclusive to them, as other students may elect the course. The course focuses on small business and entrepreneurial process. Topics include, but are not limited to, such areas as: entrepreneurship opportunities, starting from scratch or joining an existing business, developing a business plan, the customer, growth strategies and managing growth. 3 Cr

MAN 303 Project Management

This course focuses on a holistic approach to project management. The content deals with planning, scheduling, organizing and controlling projects, such as product development, construction, systems, new business, production layout, special events. The course includes major topics of strategy, priorities, organization, project tools and systems, organization, teams and leadership. Primary class emphasis is on the project management systems and behavioral issues. The course culminates in a project plan of interest to the student. Prerequisite: Junior standing or permission of instructor. 3 Cr

MAN 313 Managerial Decision Making

This course provides an examination of the issues of decision making including personal style, the external environment and internal political, cultural and ethical forces that affect the decision-making process in organizations. It goes beyond the understanding level of the introductory management courses to the level of application. Students develop both strategic and tactical problem-solving skills using cases and decision-making formulae. Prerequisite: Junior level or permission of instructor. 3 Cr

MAN 315 Essentials of Negotiation

Negotiation is a critical skill needed for effective management. This course explores the major concepts and theories of the psychology of bargaining and negotiation, and the dynamics of interpersonal and intergroup conflict and its resolution. It is relevant to a broad spectrum of management students, not only human resource management or industrial relations candidates. Prerequisite: Junior standing or permission of instructor. 3 Cr

MAN 318 Human Behavior in Organizations

The interaction of formal organization structure with the human intellect and personality, which includes studying cultural diversity as it pertains to human behavior in organizations. The course is designed to enable the student to understand and examine

important characteristics of an organization. The concepts enable the student to analyze, understand, predict and influence human behavior in that organization, thus creating a personal tool that will help increase personal effectiveness and achievement. 3 Cr

MAN 321 Operations Management

A focus on the application of quantitative tools and techniques to enhance decision making. This course is designed to introduce the student to a variety of those techniques, including cost-volume analysis, decision theory, forecasting, linear programming, work measurement and learning curves, simulation, queuing theory, materials requirement planning, etc. Prerequisite: MAT 102 or permission of instructor. 3 Cr

MAN 325 Finance

A course designed to acquaint students with financial operations, management and investment planning, and technique analysis. Subject areas include debt vs. equity financing; short, intermediate, and long term capital structuring; and qualitative and quantitative decision making. Prerequisite: ACC 201, or permission of instructor. 3 Cr

MAN 332 Human Resource Management

A study of basic principles and procedures relating to the personnel department: job analysis and evaluation, incentives, employment, placement and training, employee services, labor relations and government regulations. Prerequisite: MAN 301. 3 Cr

MAN 406 Entrepreneurship

A course designed to build upon the small business management skills acquired through the Small Business Management course. Emphasis is upon the application of these skills in the process of discovery, evaluation and entry into entrepreneurial opportunities. Prerequisite: MAN 221, senior standing, or permission of instructor. 3 Cr

MAR 101 Marketing & Entrepreneurship

An overview of marketing as an organizational and societal function stressing the application of marketing concepts and principles in entrepreneurship and realistic business situations. Students learn to analyze, plan, implement and control marketing strategies. Topics include product development and management, distribution, promotion, pricing, marketing research, consumer behavior, and external environments. 3 Cr

MAR 215 Marketing Channels

A course to provide the student with an appreciation for the complexity of product distribution from the producer to the ultimate consumer. Students are introduced to central markets, wholesaling, retailing, warehousing, transporting, and managing the channels of distribution. Prerequisite: MAR 101. 3 Cr

MAR 218 Advertising

A course designed to help students develop creative and analytical skills by evaluating ads created by others. In addition, students learn to plan, budget, execute and manage a successful advertising campaign. The use of publicity and public relations with a successful advertising campaign is explored. Prerequisite: MAR 101. 3 Cr

MAR 306 Marketing Management for Entrepreneurs

This course introduces the new entrepreneur to an understanding of the performance of activities that seek to accomplish an organization's objectives by anticipating customer or client needs and directing a flow of need-satisfying goods and services from producer to customer or client. The universal functions of marketing management of buying, selling, transporting, storing, standardization and grading, financing, risk taking, and market information are linked to the student's entrepreneurial undertaking. 3 Cr

MAR 323 Personal Selling

Insights into the theories, principles, methods and techniques of creative personal selling. Emphasis is placed on interpersonal skills, ethics, and viewing sales in their natural setting as an event where both buyer and seller benefit. Students learn those aspects of sales management that make it distinct from generic management. Prerequisite: MAR 101 or permission of instructor. 3 Cr

MAR 324 Consumer Behavior

A course to provide the student with an understanding of why people decide upon the products they purchase. The consumer decision process is stressed, as well as other aspects that influence consumers' behavior including cultural and subcultural influences. Social class and group influence, the family, the role of learning, attitudes, information search, the purchasing procedure and post-purchase processes are examined. Prerequisite: MAR 101, PSY 110 or SOC 114, or permission of instructor. 3 Cr

MAT 9 Fundamentals of Mathematics

To prepare students for algebra and college-level mathematics, an understanding of arithmetic and pre-algebra topics and their mastery is emphasized. Special topics include the arithmetic operations of whole, fractional, and decimal numbers; applications of percentages; basic algebraic operations; and geometric concepts and measurement. Placement in MAT 9 is by the UMM Mathematics Placement test. 3 Cr

MAT 12 Beginning Algebra

An introduction to the language and skills used for quantitative problem solving in all fields of inquiry and for subsequent work in mathematics. Topics include problem-solving skills, algebraic equations, inequalities, functions, polynomials, and systems of equations and inequalities. Prerequisite: initial placement or by completing MAT 9 with a minimum grade of C-. 3 Cr

MAT 102 Intermediate Algebra

A course in the language and skills used for quantitative problem solving in all fields of inquiry and for subsequent work in mathematics. Topics include quadratic, rational, exponential and logarithmic functions with applications and solutions to equations and inequalities. Prerequisite: demonstrated proficiency in MAT 012. 3 Cr

MAT 105 Contemporary Mathematics

A course to provide familiarity with topics of mathematics that are noted for their contemporary practicality in non-technical areas, are important concepts in current public discourse, or have a rich aesthetic value. Topics include voting systems, population growth, fractals, chaos, and game theory. Prerequisite: demonstrated proficiency in MAT 12. 3 Cr

MAT 110 Finite Mathematics

The study of systems of linear functions, matrices, and linear programming with an emphasis on applications to business, economics, biology, and the social sciences. Additional topics are selected from probability, Markov chains, game theory, difference equations, decision theory, and graph theory. Prerequisite: MAT 102 or demonstrated proficiency in pre-college mathematics. 3 Cr

MAT 113 Introduction to Statistics

Designed for students who need a reading knowledge of introductory statistical concepts, this course focuses on basic concepts and methods of statistics: data analysis, data production, and statistical inference. Data analysis concerns the methods for

exploring, organizing, and describing data. Data production looks at methods for producing data to answer specific questions. Statistical inference moves beyond the data to draw conclusions about a wider universe, taking into account that conclusions are uncertain. To describe and understand statistical inference, a limited introduction to probability is presented. The class is taught in a computer classroom using statistical software extensively for classroom demonstration, homework assignments, and student tutorials. Prerequisite: MAT 12 or equivalent. 3 Cr

MAT 118 History of Mathematics

The goal of this course is to provide students interested in teaching middle- or high-school level mathematics, or others simply interested in the topic, the necessary understanding of the historical foundation of mathematics. The course will explore the origins of mathematics from anthropological and sociological viewpoints. It will then use this as a base for exploring the cultural development of basic numbering, arithmetic, basic statistics (mean, median, mode, etc.), simple probability, basic geometry, measurement (area, volume, etc.), patterns, including symmetry and basic networks, mathematical reasoning, and using mathematics to communicate. The development of these areas, all of which are contained in the Maine State Learning Results for middle and secondary grades, will be explored from various cultural perspectives including a selection from prehistoric, Native American, Egyptian, Mesopotamian, Ancient Greek, Roman, Hindu, Islamic, Chinese, Korean, Japanese, and European cultures. The course is designed to be a survey course that will allow for such a broad view of the development of mathematics. Prerequisite: MAT 102 or permission of instructor. 3 Cr

MAT 122 Precalculus

An introduction to elementary functions, designed to prepare the student for calculus. Topics include polynomial, rational, exponential, logarithmic and trigonometric functions. Graphing calculator techniques are principal tools. Prerequisite: MAT 102 or demonstrated proficiency in pre-college mathematics. 4 Cr

MAT 124 Statistics for the Social Sciences

Statistics play a crucial role in understanding and developing new knowledge within the social sciences. This course introduces statistical concepts and procedures to social science students who will use statistics in their future coursework and/or career. In this course, students will learn a variety of descriptive and inferential techniques for analyzing

continuous and categorical data. Students will learn how to interpret and present the results of statistical analyses in APA format and will be able to communicate the meaning of these statistical analyses to non-academic audiences. Students will leave the course with an understanding of how and why social scientists use statistics. Prerequisite: MAT 12 and at least one of the following: ANT 101, CMY 101, PSY 110 or SOC 114. 3 Cr

MAT 126 Calculus I

Basic concepts of differential and integral calculus: limits, continuity, differentiation and integration of elementary functions, graphing, maxima and minima, and the Fundamental Theorem. A computer algebra system is used extensively. Prerequisite: MAT 122 or equivalent. 4 Cr

MAT 127 Calculus II

Methods and applications of integration, some differential equations, exponential and logarithmic growth, and infinite series. A computer algebra system is used extensively. Prerequisite: MAT 126. 4 Cr

MAT 200 Topics in Mathematics

A post-calculus course in multi-variable calculus, linear algebra, dynamical systems, differential equations, discrete math, numerical analysis or modeling. Topics are rotated to accommodate student needs and interests. May be repeated for credit with permission of instructor. Prerequisite: MAT 126 or 127, depending on the topic. 1 - 4 Cr

MAT 215 Applied Statistics

Designed for students who intend to use statistics and statistical software later in their education and professional lives. This course offers an extensive and in-depth introduction to the concepts and methods of statistics in the three parts: data analysis, data production, and statistical inference. The course also includes a limited introduction to probability. Students learn about the role of variability in hypothesis testing using both parametric and non-parametric tests. The course is taught in the computer classroom with each student having individual access to statistical software. The software, used for all applications discussed in class, is an important part of the course for demonstration, student tutorials, and discussing homework. Prerequisite: MAT 102 or equivalent. 4 Cr

MAT 315 Experimental Design & Analysis for Biologists

This course will introduce students to the most common and widely used experimental designs to

generate biological data for both continuous and categorical variables. The emphasis will be on how to: 1) design resource-appropriate sampling programs; 2) avoid mistakes that make analyzing data difficult; and, 3) properly analyze data. Statistical methods such as analysis of variance, linear and non-linear regression, analysis of covariance, analysis of frequencies, and an introduction to multivariate analysis will be presented. Prerequisite: MAT 215. 4 Cr

MTR 101 Meteorology

An introduction to the study of weather and weather-related phenomena including solar radiation, temperature, moisture, winds, air pressure, air masses, weather patterns, weather analysis, weather forecasting, climate, weather instruments, and computers. Upon completion of this course, a student should have a qualitative understanding of how many of the basic principles of physics, chemistry and mathematics are applied in meteorology; an ability to relate personal weather observations to data received from weather instruments and analyzed on standard weather charts; and a new set of general data analysis skills. The course is delivered asynchronously and the Web is used extensively. 4 Cr

MUS 101 UMM Chorale

A choral group performing a cappella and accompanied songs and larger works of all periods and styles. Courses are identical and may be repeated for credit. 1 Cr

MUS 103 Applied Music: Private Lessons

Individual or group instruction in vocal or instrumental performance (drums, guitar, piano, violin, voice, winds, etc.). Each student, whether a beginner or a more experienced musician, is expected to progress at his or her own optimum rate. An in-house performance at semester's end (closed to the public) is the final for this course. Instruction on some instruments may be contingent upon faculty availability. May be repeated for credit. 1 Cr

MUS 107 Applied Music: Performing Groups

Instrumentalists and singers (Pop Band, Chamber Ensemble, Town/Pep Band, etc.) rehearse weekly, culminating in public performance(s) near the end of the semester. All groups may include both singers and players except Town/Pep Band, which is an instrumental ensemble dedicated to traditional band literature. Pop Band performs songs of any and all styles. Chamber Ensemble explores classical music, and has MUS 119 or permission of instructor as a prerequisite. This is the only group with a

prerequisite. Other musical experiences for academic credit are possible, and have been offered. 1 Cr

MUS 115 Intro to Music: Listening

The basic course in musical awareness, informed listening, and the elements of music. It assumes no prior knowledge of music and prepares students for lifelong enjoyment as a vital link in the musical experience. It also prepares the student for courses in music history. 3 Cr

MUS 119 Fundamentals of Music: Literacy

Music notation, basic performance and composition techniques (vocal and instrumental), beginning harmony and sight singing are covered. This course in practical music making is the first course in the music theory sequence and is a prerequisite to all other theory courses. 3 Cr

MUS 207 Applied Music: Performing Groups

Instrumentalists and singers (Pop Band, Chamber Ensemble, Town/Pep Band, etc.) rehearse weekly, culminating in public performance(s) near the end of the semester. All groups may include both singers and players except Town/Pep Band, which is an instrumental ensemble dedicated to traditional band literature. Pop Band performs songs of any and all styles. Chamber Ensemble explores classical music, and has MUS 119 or permission of instructor as a prerequisite. This is the only group with a prerequisite. Other musical experiences for academic credit are possible, and have been offered. 1 Cr

MUS 211 Topics in Music

An umbrella course designed for the investigation of various music styles, periods, practices, and ideas not covered in other course work. American Popular Music History, American Musical Theatre (Broadway), Jazz Survey, Women in Music, and the Beatles are topics offered recently. Prerequisites depend upon the specific course. 1 - 3 Cr

MUS 214 Music Theory I

Scales, intervals, chords, and their interrelationships. The study of four-part harmony is begun. Practice in sight singing, rhythmic, melodic and harmonic dictation is given; transcription and original composition are stressed. Prerequisite: MUS 119 or permission of instructor. 3 Cr

MUS 223 Songwriting

The basic tenets of songwriting learned through analysis and creative work. A personal portfolio of songs and demonstration recordings is compiled, then shared with, and critiqued by, the class. This course has been taught in both full-semester/classroom and

intensive/outdoor formats. Songwriting fulfills elective credit in both the Creative Writing and Music minors. Prerequisite: ENG 101 and MUS 119, or permission of instructor. May be repeated for credit. 3 Cr

MUS 301 UMM Chorale

A choral group performing a cappella and accompanied songs and larger works of all periods and styles. Courses are identical and may be repeated for credit. 1 Cr

MUS 307 Applied Music: Performing Group

Instrumentalists and singers (Pop Band, Chamber Ensemble, Town/Pep Band, etc.) rehearse weekly, culminating in public performance(s) near the end of the semester. All groups may include both singers and players except Town/Pep Band, which is an instrumental ensemble dedicated to traditional band literature. Pop Band performs songs of any and all styles. Chamber Ensemble explores classical music, and has MUS 119 or permission of instructor as a prerequisite. This is the only group with a prerequisite. Other musical experiences for academic credit are possible, and have been offered. 1 Cr

MUS 313 Music History II

A continuation of European-American art-music history, from Beethoven to the present. The influences of popular and ethnic musics are discussed, and technological developments are considered, both as delivery media and intrinsic art forms. Prerequisite: MUS 115 or permission of instructor. 3 Cr

MUS 407 Applied Music: Performing Groups

Instrumentalists and singers (Pop Band, Chamber Ensemble, Town/Pep Band, etc.) rehearse weekly, culminating in public performance(s) near the end of the semester. All groups may include both singers and players except Town/Pep Band, which is an instrumental ensemble dedicated to traditional band literature. Pop Band performs songs of any and all styles. Chamber Ensemble explores classical music, and has MUS 119 or permission of instructor as a prerequisite. This is the only group with a prerequisite. Other musical experiences for academic credit are possible, and have been offered. 1 Cr

PHE 101 Physical Education Activity

A choice of activities is available each semester, depending on the season and scheduling requirements. The selection may include aerobic dance, aquasize, archery, badminton, basketball, bowling, fitness, folk dance, golf, karate, kickboxing, racquetball, snowshoeing, soccer, softball,

swimming, team handball, tennis, volleyball, wallyball, weight training, or cross-country skiing. Students may elect a maximum of 3 activities in any one semester. Intercollegiate athletic participation is also available for credit as a physical education activity. Offered pass/fail. 1 Cr

PHE 103 Open Water I SCUBA

This Professional Association of Diving Instructors (PADI) course is a performance-based education course which leads to certification upon completion of all requirements. This course teaches the foundational knowledge and skills necessary to dive with a buddy, independent of supervision. The course involves classroom activities, pool exercises and/or supervised open water dives. Prerequisite: Medical clearance. 3 Cr

PHE 201 Physical Education Activity

A choice of activities is available each semester, depending on the season and scheduling requirements. The selection may include aerobic dance, aquasize, archery, badminton, basketball, bowling, fitness, folk dance, golf, karate, kickboxing, racquetball, snowshoeing, soccer, softball, swimming, team handball, tennis, volleyball, wallyball, weight training, or cross-country skiing. Students may elect a maximum of 3 activities in any one semester. Intercollegiate athletic participation is also available for credit as a physical education activity. Offered pass/fail. 1 Cr

PHE 210 Advanced Open Water SCUBA

This course expands the knowledge and experience of students beyond the Basic Open Water SCUBA course and prepares students for advance SCUBA certifications in Rescue Diver and others. Students will participate in classroom instruction, pool instruction and open water dives. The course covers concepts, practical applications, problem solving, safety, and hands-on experiences. Students will study, understand and be able to demonstrate the skills associated with the following topical areas: naturalist, deep water dives, navigation, search and recovery, night diving, shipwreck concepts and practices, and recreational dive planner. Every student will demonstrate knowledge and practical skills in all areas to complete the course and to obtain PADI certification. Quizzes and tests are part of the evaluation process. Grades are determined based on all parts of assessment. Prerequisite: PHE 103 or equivalent certification. 3 Cr

PHI 201 Ethics

An examination of the task of ethics to elucidate the concept of the good life; to investigate ideas of

obligation, duty, and responsibility; and to decide what ought to be done. The student explores traditional themes of right conduct. Through readings and discussions, these themes are applied to relevant contemporary issues such as war and terrorism, the connections between business and environmental ethics, sexuality, suicide and euthanasia and drug use. Prerequisite: ENG 101. 3 Cr

PHI 212 Topics in Philosophy

Topics focusing on a different aspect of study, i.e., science and religion, perception of reality, Existentialism, eastern philosophy, and world religions. The course also may be geared to particular students such as an aesthetics course for art, music and literature students, or a philosophy of education course. Prerequisite: ENG 101. 3 Cr

PHI 213 Environmental Ethics

A multidisciplinary look at philosophical, psychological, economic, scientific, spiritual and cultural world views and theories about the environment. Diverse topics include animal rights, global warming, pollution, population, war, oil, ecocentric vs anthropocentric, Gaia Theory and more. The course covers a rich spectrum of topics that connect human behavior and attitudes to the Earth across many dimensions and seeks to help students use ethical analysis to work through the complexity in search of solutions. 3 Cr

PHY 111 Physics I

An introduction to the nature of energy and mechanics. Emphasis is placed on the study of vectors, velocity, acceleration, and force. Laboratory work includes computer simulation as well as traditional physics activities. Lecture 3 hours, laboratory 2 hours. Prerequisite: MAT 122 or equivalent. 4 Cr

PHY 112 Physics II

A continuation of PHY 111 introducing the concepts of sound, electricity, optics, and modern physics. Lecture 3 hours, laboratory 2 hours. Prerequisite: PHY 111 or equivalent. 4 Cr

POS 212 Topics in Political Science

Courses designed to allow students to pursue study in specific area of Political Science. Courses vary in content in response to student interest and demand. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr

POS 215 American National Government

An introductory study of the major principles, structures and practices of the United States government. The course emphasizes such topics as the Constitution and its development; the federal system; civil liberties and civil rights; public opinion, interest groups, political parties and elections; the Congress; the Supreme Court; the Presidency and the presidential establishment; domestic and foreign policy formation; government services and regulation; and the federal budget and federal taxation. Prerequisite: Sophomore standing or permission of instructor. 3 Cr

POS 305 Environmental Policy

A systematic analysis of U.S. environmental policy focusing on air and water quality, land use, hazardous wastes and energy. Policy is analyzed as the resultant of political structure and process, societal values and perceived benefits and costs. Specific disciplinary perspectives and value conflicts are emphasized. Prerequisite: Junior standing or permission of instructor. 3 Cr

POS 311 Political Correctness in American Society

This course defines, examines, and analyzes political correctness as a long-standing feature of American society, dating back to the Salem witch trials and including the Alien and Sedition Acts, Prohibition, McCarthyism, and more. The roots and consequences of conflicts between liberty and community are carefully considered. The effects on different sectors of American society and on public policy are identified and analyzed. The course is taught on the Web, and ideological diversity is encouraged and valued. Prerequisite: POS 215 or instructor's permission. 3 Cr

PSY 100 Animal Behavior and Selection of Service Dogs

This is an introduction to techniques for animal training with a focus on owner-trained service dogs. A service dog is one specially trained to perform a task or work that aids a person with a physical or emotional disability, thus allowing them more freedom to live more independently. The course will cover basic psychological principles of operant conditioning used with animal training. There will also be hands-on opportunities for basic dog training that require the application of operant learning techniques. The optional lab will have two main components. The first component will be training qualified dogs to prepare them to be certified as therapy dogs. The second component will be helping

train a service dog for a specific task to assist its disabled owner. 2 Cr

PSY 101 Animal Behavior & Selection of Service Dogs Lab

This is an introduction to techniques for animal training with a focus on owner-trained service dogs. A service dog is one specially trained to perform a task or work that aids a person with a physical or emotional disability, thus allowing them more freedom to live more independently. The course will cover basic psychological principles of operant conditioning used with animal training. There will also be hands-on opportunities for basic dog training that require the application of operant learning techniques. The optional lab will have two main components. The first component will be training qualified dogs to prepare them to be certified as therapy dogs. The second component will be helping train a service dog for a specific task to assist its disabled owner. 1 Cr

PSY 102 Personal Growth

This course is designed to provide students with the opportunity to examine their life-space; to envision alternative possibilities in their personal and professional growth; and to foster the development of creative changes toward their future life-career. This course has two essential aspects. First, the theoretical and academic aspect in which the focus of the class and text is on major psychological theories and their applications for everyday life. Second, the experiential aspect in which the students are encouraged to participate in growthful exercises individually and in group situations. The course involves the various areas of life including relationships to family members, to friends and associates, and to professional colleagues. This course includes a Service-Learning and Community Engaged (SL/CE) component. 3 Cr

PSY 104 Fundamentals of Animal-Assisted Therapy

Introduction to animal-assisted therapy, including history and evidence-based research. The course will cover physical (i.e. fine and gross motor skills, balance and other mobility issues) and psychological benefits from animal-assisted activities, education (i.e. Reading with Rover) and intervention. Guidance on using animal-assisted therapy with children, families and the elderly, in counseling and psychotherapy settings and for treating a variety of specific disorders will be provided. Students will learn how to design and implement animal-assisted interventions and about the efficacy of animal-assisted therapy with different disorders and patient

populations. The importance of species selection for therapeutic modalities, animal care and zoonotic concerns are addressed. 3 Cr

PSY 110 Intro to Psychology

An introduction to the scientific study of behavior including a survey of all the major areas of inquiry pursued by psychologists—history, methods, physiological aspects, perception, learning, memory, cognition, emotion, motivation, consciousness, personality, abnormal behavior and therapies, and social processes. Unless otherwise noted, this course is a prerequisite to all other psychology courses. 3 Cr

PSY 200 Behavioral Health Professional

This course introduces skills and knowledge needed for working in the role of Behavioral Health Professional with children and their families. Content covered includes working in clients' homes, basics of child development and family functioning, impacts of trauma, creating individual treatment plans, community resources, observing behavior and foundations of instruction. This course is part of the requirements for becoming a certified Behavioral Health Professional. Prerequisite: PSY 110 or ENG 101, or permission of instructor. 4 Cr

PSY 201 Developmental Psychology

A course concerned with the description and psychological explanation of changes in an individual's behavior and mental processes as a result of biological and experiential factors. Overviews of physical, cognitive, and psychosocial development are provided. Prerequisite: PSY 110 or permission of instructor. 3 Cr

PSY 203 Educational Psychology

A course designed to help prospective teachers reflect upon the dynamics of learning and instruction. Theories of cognitive, affective and behavioral domains are related to classroom experience. Other topics include educational research, assessment and evaluation, individual and group differences, motivation, classroom management and effective teaching. A field experience over an extended period of time is also a component of the course. 3 Cr

PSY 211 Introduction to Behavioral & Community Health Systems

This course will review systems of care provided by the state, as well as those provided by for-profit and not-for-profit entities, to serve the needs of behavioral health consumers. Essential components of this course include addressing contemporary public and social policy -- and social services provision within those policies -- including

fundamentals of behavioral health care, child protection, and welfare systems. In addition, the course examines the history and impact of laws and regulatory standards that dictate these policies -- and ultimately service provision in behavioral care for children, adults and the elderly. Both current practices and historical precedent are woven into a model represented in both its completeness and contradictions. Required for Provisional & Full MHRT Certification. This course includes a Service-Learning and Community Engaged (SL/CE) component. Prerequisite: PSY 110 or permission of instructor. 3 Cr

PSY 212 Lifespan I

This course covers the context and process of human development from prenatal stages through adolescence. Developmental psychology focuses on how learning and maturation within social, cultural and physical environments shape normal human development. Development is a holistic process, yet can be broken down into physical, cognitive, social and emotional aspects, as well as development of communication and language, self, gender and prosocial behavior. Developmental research methods will be covered, as well as important areas of application for developmental psychology of childhood and adolescence, including policy and programs directed at families, healthcare and prevention, education, childcare, etc. Prerequisite: PSY 110 or permission of instructor. 3 Cr

PSY 213 Psychosocial Rehabilitation Practices

This course will review the services that help support people with psychiatric disabilities, improve their quality of life and fully integrate into the community in a holistic fashion, noting the conceptual practice of psychosocial rehabilitation as a core organizing attitude underlying all behavioral health care. Core philosophies are examined, including historical and current theories and practices, noting the use of contemporary effective practices which are key to current psychosocial rehabilitation. Required for Provisional & Full MHRT Certification. Prerequisite: PSY 110 or permission of instructor. 3 Cr

PSY 214 Psychology of Prejudice

The psychology of stereotypes, prejudice, discrimination and stigma, and methods to undermine these concepts, will be presented so that understanding and applications can be extended to various minority populations. Minority populations, which may be related more to influence than to size, may include African Americans, Native Americans, Roma, Middle Eastern Americans, Asian Americans,

those individuals that may identify as LGBT, the impoverished, the elderly, the obese, those with physical or mental disabilities, and women. Ways to work to ameliorate prejudice will be explored. Prerequisite: ANT 101, PSY 110 or SOC 114, or permission of instructor. 3 Cr

PSY 215 Psychology of Gender

This course surveys psychological theory and research on gender while emphasizing cross-cultural and multicultural issues to demonstrate what is truly universal about gender. Major areas covered include: sex roles, theories and methods of studying gender, physiological systems and development, relationships, sexuality, social performance, education and work, physical and mental health and mass media and society. Prerequisite: PSY 110 or permission of instructor. 3 Cr

PSY 219 Special Topics in Applied Psychology

Courses designed to allow students to pursue study in an area within Psychology. Courses vary in content in response to student interest and demand. Some possible courses could include Conflict Analysis & Resolution, Ecological Psychology, Readings in Applied Psychology, Industrial & Organizational Psychology, Multicultural Psychology, Community Psychology, Stress Management, Human Factors Psychology, History of Psychology, Perception & Cognition, Psychology of Motivation or Psychology of the Family. Under this topics heading, other Mental Health & Rehabilitation Technician Certification courses could be offered, including Sexual Abuse, Trauma & Recovery; Case Management, Mental Health & Aging, Substance Abuse with a Dual Diagnosis Component; Group Process; or Vocational Aspects of Disability. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr

PSY 221 Health Psychology

This course surveys theory and research on the interrelationships of mental processes and behavior with physical health and well-being. Major areas covered include the interface between mind and body; the role of belief systems in engaging in health protective behavior; the influence of stress on the immune system; and the biological, psychological, social and behavioral factors that moderate maintaining health or developing illness, such as individual differences in personality, life-style choice, coping styles, and the availability of social support. Methodological issues in health psychological research are also explored. Prerequisite: ENG 101 and PSY 110, or permission of instructor. 3 Cr

PSY 222 Psychology Professions & Ethics

This course provides an overview of the professions and ethics associated with psychology. Students will be introduced to psychology professions in healthcare, public policy, the legal system, education, research and industry. The American Psychological Association's Ethics code will be introduced, critically examined and used to discuss ethical tensions that arise in various psychology professions. The role of informed consent and internal review boards will be addressed. Prerequisites: PSY 110 or permission of instructor. 3 Cr

PSY 223 Sport Psychology

Sport Psychology is the study of the mental and behavioral factors that influence or are influenced by participation in sport, exercise, and physical activity. Sport psychologists are interested in how athletics enhance and support the personal growth and well-being of individuals. This course outlines the research and training methods of sport psychologists and surveys theory and research on sport psychology, including such major areas as the history of sport psychology, the application of principles of learning and behavior, motivation and social psychology, the assessment of individual differences in personality of athletes, and principles of coaching and the psychology of exercise and fitness. Prerequisite: ENG 101 and PSY 110, or permission of instructor. 3 Cr

PSY 224 Community Psychology & the Environment

This course utilizes the framework of community psychology to analyze human relationships with the physical environment, as well as social, cultural and economic environments. Community psychology focuses on understanding humans in communities. The discipline is also heavily influenced by public health and focused community-level prevention and intervention strategies. The course will also focus on relationships between people's well-being, social justice and environmental issues, such as the relationship between health, poverty, and pollution. Prerequisite: PSY 110 and CMY 101 or permission of instructor. 3 Cr

PSY 226 Human Sexuality

An interdisciplinary inquiry into the historical, cultural and developmental issues in human sexuality. Current literature and research are reviewed. As this course includes an examination of sexuality, it includes materials that may be deemed explicit or provocative for many. Individual discretion is advised. Prerequisite: ENG 101, sophomore standing or permission of instructor. 3 Cr

PSY 230 Abnormal Psychology

A course designed to provide an overview of the area of abnormal psychology and to introduce the student to different theoretical models, classifications, origins, and treatments of abnormal behavior. Prerequisite: PSY 110 and sophomore standing, or permission of instructor. 3 Cr

PSY 302 Intro to Counseling Techniques

This course introduces students to the basic skills required for counseling. Students will practice implementing these skills during counseling role plays in class, as well as providing their peers with positive and constructive feedback at the conclusion of the role plays. The ability to utilize feedback and be reflective will be emphasized. This course will also review ethical issues associated with counseling and the role of supervision. Psychodynamic, Behaviorist, Person-Centered, Cognitive and Family Systems Theories, as well as Motivational Interviewing will be briefly introduced. Required for Provisional & Full MHRT Certification. Prerequisites: PSY 211 or permission of instructor. 3 Cr

PSY 311 Social Psychology

A study of the social and cultural factors affecting human behavior, including effects on observable behavior, emotions, attitudes and other cognitions. Topics of conformity, persuasion, aggression, prejudice, prosocial behavior, relationships, and group influence are considered. This course includes a Service-Learning and Community Engaged (SL/CE) component. Prerequisite: PSY 110, SOC 114, and junior standing; or permission of instructor. 3 Cr

PSY 312 Theories of Personality

A study of the concepts included in psychology's most widely accepted theories of personality such as those proposed by Freud, Horney, Allport, Rogers, and Skinner. Attention is given to related research, personality assessment, and therapies. Prerequisite: PSY 110 plus 3 additional cr of psychology or sociology; third-year status recommended. 3 Cr

PSY 313 Counseling Diverse Populations

This counseling course is designed to help the student acquire the skills necessary to become a culturally competent mental health or social service practitioner, that is, someone who is sensitive to cultural differences and to their impact on human interactions. The course is based on the fundamental premise that cultural competence is an ongoing and multi-layered process working at personal, interpersonal, and organization-wide levels. Topics

to be addressed include skills to increase cultural awareness and understanding, skills to foster effective interpersonal communication and organizational change strategies. Studies will learn to identify and understand culture as it operates on different social levels (class, ethnicity, gender, sexual orientation). Students will also learn to identify the barriers to effective communication and positive relationships including how culture may be a barrier. Required for Provisional & Full MHRT Certification. Prerequisite: PSY 211 and PSY 302, or permission of instructor. 3 Cr

PSY 317 Environmental Psychology

This course will acquaint the student with the reciprocal nature of the interplay between people and built and natural environments. Students will develop an appreciation for how physical environments influence human behavior. Additionally, students will use psychological principles to better understand environmental problems (i.e. climate change, pollution and energy efficiency) and to promote pro-environmental behaviors. Prerequisite: PSY 110, or permission of instructor. 3 Cr

PSY 318 Psychology of Curiosity

This course is designed to survey theory and empirical research on curiosity -- the innate motive to seek out and acquire new information to stimulate interest or reduce uncertainty. The study of curiosity requires consideration of a number of major areas of psychology, including emotion and motivation, learning and memory, neuroscience, individual differences in personality and development. These topics will all be touched upon in regard to curiosity. Related topics such as novelty seeking, gossip and sensation seeking will also be addressed. Prerequisite: PSY 110, or permission of instructor. 3 Cr

PSY 319 Special Topics in Applied Psychology

Courses designed to allow students to pursue study in an area within Psychology. Courses vary in content in response to student interest and demand. Some possible courses could include Conflict Analysis & Resolution, Ecological Psychology, Readings in Applied Psychology, Industrial & Organizational Psychology, Multicultural Psychology, Community Psychology, Stress Management, Human Factors Psychology, History of Psychology, Perception & Cognition, Psychology of Motivation or Psychology of the Family. Under this topics heading, other Mental Health & Rehabilitation Technician Certification courses could be offered, including Sexual Abuse, Trauma & Recovery; Case

Management, Mental Health & Aging, Substance Abuse with a Dual Diagnosis Component; Group Process; or Vocational Aspects of Disability. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr

PSY 324 Lifespan II

This course covers the context and process of human development transitioning out of adolescence and into adulthood and on through older adulthood and death. Developmental psychology focuses on how learning and maturation within social, cultural and physical environments shape normal human development. Development is a holistic process, yet can be broken down into physical, cognitive, social and emotional aspects, as well as development of communication and language, self, gender and prosocial behavior. Developmental research methods will be covered, as well as important areas of application for developmental psychology of adulthood and older adulthood, including policy and programs for healthcare and prevention, education, employment and community supports, etc. Meets the requirement for Mental Health & Aging for full Maine State Mental Health & Rehabilitation Technician Certification. This course includes a Service-Learning and Community Engaged (SL/CE) component. Prerequisite: PSY 110 or permission of instructor. 3 Cr

PSY 326 Vocatnl Implications of Disability

This course will address the vocational implications of the most frequently encountered physical and psychiatric disabilities. Emphasis will be placed on understanding limitations in function and how those limitations affect work as conceptualized within existing models of disability. The notion of vocational rehabilitation and the range of employment service programs will be addressed in a holistic fashion, noting their relationship to the conceptual practice of psychosocial rehabilitation and human services. Current theories and practices of employment services will be examined. Skills for evaluating and assessing the vocational impact of a disability and effective strategies for promoting client understanding and access to community resources will be addressed. This course is required for full MHRT certification. Prerequisite: PSY 211 and PSY 213, or permission of instructor. 3 Cr

PSY 327 Chemical Dependency

This course introduces the student to basic information concerning chemical dependency. A survey of historical and present-day perspectives on alcohol and drug abuse and addiction in society and the workplace will be covered. The mechanism of

drug action and the nature of addiction including the psychological, physiological, behavioral and social effects of alcohol and other drugs will be covered in depth. The role of the counselor in substance abuse prevention, substance abuse addiction identification and treatment will be addressed. Alcoholics Anonymous and other self-help groups, programs and treatment modalities are addressed. While the major focus of the course is on alcohol and drug abuse, substance abuse in special populations is addressed. Prerequisite: PSY 110 and PSY 211, or permission of instructor. 3 Cr

PSY 328 Case Management

This course introduces students to case management as it is utilized in the health and human services fields. Case management is a process of assessing a client's needs, and planning and facilitating their connections with health and human services and other resources. Case management includes education, advocacy and networking with providers and services across many disciplines. This course will introduce students to the skills and responsibilities central to case management, as well as professional, legal, and ethical issues that impact this service. This course is required for full MHRT certification. Prerequisite: PSY 211 or permission of instructor. 3 Cr

PSY 329 Trauma & Recovery

This course will introduce students to concepts of trauma, as well as resiliency and recovery. The psychological term trauma describes significant events that are usually devastating, life-threatening and shocking. Traumatic events can have on-going impacts on people's thinking, feeling and behavior. This course will include information of types of traumatic experience (i.e. assault, sexual abuse, motor vehicle accidents, combat experience or natural disaster), basic knowledge and skills used in assessment and screening of trauma, and an overview of services and supports for people who have experienced trauma. Historical, social and cultural factors which impact our understanding of trauma will also be addressed, as well as trauma's social and physiological impact. This course is required for full MHRT certification. Prerequisite: PSY 211, or permission of instructor. 3 Cr

PSY 332 Crisis Identification & Resolution

This course is a study of behaviors that typically bring prompt intervention and the interventions appropriate at such times. Students will learn to identify behaviors that indicate psychological crises. The course will cover events such as being a danger to self or other; being so mentally ill that the person

is not able to function; substance abuse related problems; trauma-related problems and behavior associated with the abuse of children, spouses and the elderly. Areas to be covered include personal skills, modes of intervention, appropriate referral tactics, and issues of social and legal relevance. Required for Provisional & Full MHRT Certification. Prerequisite: PSY 211 or permission of instructor. 3 Cr

PSY 335 Forensic Psychology

Forensic psychology is the application of psychological principles and techniques within a legal setting. This course will focus on ways in which psychologists work within legal contexts and how psychological techniques inform civil and criminal legal proceedings. Topics include the role of expert witnesses, determination of competency to stand trial, issues informing legal decisions on child custody, assessment of malingering, determination of civil competencies, assessing offenders, use of interrogation techniques and ethical issues that arise in this field. This course is appropriate for students interested in careers in criminal justice, as well as students who plan to work in health and human services with clients who are court-involved or adjudicated. Prerequisites: PSY 110 and sophomore standing, or permission of instructor. 3 Cr

PSY 351 Chemical Dependency & Dual Diagnosis Counseling

This course is an overview of different treatment models for chemical dependency and dual diagnosis treatment. Chemical dependency for the purposes of this course will include diagnoses of substance abuse and dependence for alcohol, street drugs and abused prescription medication. Dual diagnosis in this context refers to having both a mental health diagnosis (i.e. depression, anxiety, ADHD, bipolar disorder) and a substance abuse or dependence disorder. Students will be reviewing the history and development of dual diagnosis treatment and learning about screening, assessment and basic treatment models, as well as understanding the current array of services for chemical dependency. Students will also learn how to identify state board requirements for becoming a Certified Drug & Alcohol Counselor (CADC) and Licensed Drug & Alcohol Counselor (LADC), as well as the requirements to qualify and register for the professional exams. This course is required for full MHRT certification. Prerequisite: PSY 211 and PSY 302, or permission of instructor. 3 Cr

PSY 419 Special Topics in Applied Psychology

Courses designed to allow students to pursue study in an area within Psychology. Courses vary in content in response to student interest and demand. Some possible courses could include Conflict Analysis & Resolution, Ecological Psychology, Readings in Applied Psychology, Industrial & Organizational Psychology, Multicultural Psychology, Community Psychology, Stress Management, Human Factors Psychology, History of Psychology, Perception & Cognition, Psychology of Motivation or Psychology of the Family. Under this topics heading, other Mental Health & Rehabilitation Technician Certification courses could be offered, including Sexual Abuse, Trauma & Recovery; Case Management, Mental Health & Aging, Substance Abuse with a Dual Diagnosis Component; Group Process; or Vocational Aspects of Disability. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr

PSY 420 Learning and Memory

A study of experimental analyses of animal and human learning from various perspectives within psychology. Topics include conditioning; different types of learning; encoding, storage, and retrieval of memory; and neural mechanisms of learning and memory. Prerequisite: PSY 110, MAT 113, or permission of instructor. 3 Cr

PSY 425 Motivation

This course is designed to survey theory and empirical research on motivation, defined as the factors that initiate, energize, direct and sustain behavior. This course covers the history and systems in the study of motivation, physiological and psychological needs, cognition, individual differences in personality and motivation, and emotion. Prerequisites: PSY 110 and ENG 101. 3 Cr

PSY 430 Perception and Cognition

A human information processing approach to human perception and cognition. Relationships between psychological and physical realities are formalized as students consider the physiological and psychological processes in the behaviors discussed. Topics include attention, vision, audition, knowledge representation, memory, language, problem solving, and decision making. Prerequisite: MAT 113, PSY 110, PSY 420, or permission of instructor. 3 Cr

PSY 442 Physiological Psychology

Introduction to the anatomical and physiological bases of behavior. Topics include learning, sensation, motivation, emotion, and psychopathology

as revealed by a physiological perspective. Prerequisite: BIO 110 or BIO 111 or BIO 117, and MAT 113, PSY 110, and junior standing; or permission of instructor. 3 Cr

REM 110 Intro to Environmental Recreation & Tourism Management

This course will philosophically examine the historical events that created the recreational institutions of today, as well as contemporary thinking in the field. The course aims to assist students in developing their own philosophy that will guide them through their professional careers. Institutions studied will include community recreation and the playground movement, state and municipal parks, federal lands and the conservation movement, organized camping, youth organizations, outdoor education and selected sports. The course will also provide students with an overview of career opportunities in the leisure service industry, and include discussions of professionalism, exploration of career objectives, and personal interaction with working professionals from several different segments of the leisure services industry. Speakers and the Career Development Office will help students explore individual interests, values and job characteristics so they can more readily choose an appropriate career direction. 3 Cr

REM 115 History and Philosophy of Recreation

A philosophical foundation in the theories of leisure, recreation and play that also traces the historical framework of the leisure service industry. The sociological, psychological and physiological significance of play, recreation and leisure as it relates to the individual lifespan and society as a whole is explored. The course will explore the changing role of leisure and the leisure services profession. Offered spring semester only. 3 Cr

REM 121 Outdoor Recreation I

A survey of outdoor recreation activities that addresses personal motivation for participation as well as direct and indirect psychological, social and physical benefits derived from participation. Economic, technological, political and environmental impacts of outdoor recreation are examined. Historical perspectives, professional responsibilities, human and natural resource elements, and future trends are explored. The course includes active participation in outdoor activities such as lake canoeing, ocean kayaking, backpacking, camping, and map and compass skills. Emphasis is placed on outdoor leadership philosophies and techniques. Offered fall semester only. 3 Cr

REM 122 Outdoor Recreation II

Develops philosophical, organizational, participation and leadership skills in an effort to promote safe, enjoyable participation in outdoor activities while considering the impact on and the protection of the natural resource. The motivation for participation and the role of the outdoor leader are explored in detail. This course includes active participation in outdoor activities such as skiing, winter camping, snowshoeing and river canoeing. Risk management planning is an integral part of the course. Offered spring semester only. Prerequisite: REM 121 or permission of instructor. 3 Cr

REM 123 River Canoeing and Camping

Designed to prepare a student to lead an extended canoeing trip on a wilderness river. The learning experiences in this course are designed to help students develop an awareness and appreciation of the Maine woods, and to enjoy it safely, while leaving it environmentally sound. This course provides excellent preparation for taking the Maine Guide exam. Prerequisite: REM 121 or permission of instructor. 3 Cr

REM 125 Sailing and Basic Seamanship

Designed to introduce students to sailing and basic boating safety. The course covers basic seamanship, sailing theory and techniques, boat handling, navigation, marine safety, and proper procedures for administering sailing programs. Students also have an opportunity to develop an awareness and appreciation of the Maine waterways. 3 Cr

REM 201 Leisure Activities

Explores leisure theory, concepts of play and impacts of organizational structure on the outcome of any activity. Using a variety of non-sport activities such as games, crafts, music and drama, relationships between resources and experiences are explored and appropriate facilitation techniques for all individuals and groups within society are analyzed. Developing an understanding of the nature and diversity of leisure activities is the goal of this course. Prerequisite: REM 110 and REM 115, or permission of instructor. 3 Cr

REM 202 Recreational Sports Methods

Intended to give the student a general understanding of sports in a recreational setting. Topics include the planning process, organizing activities, presentation methods and techniques and evaluation procedures. Students develop an appreciation of individual differences as they relate to sports programming. The impacts of and relationships between many current societal issues and sport are explored.

Prerequisite: REM 201 or permission of instructor. 3 Cr

REM 205 Recreation Safety and First Aid

Develops an awareness of safety in a variety of recreational settings. The course includes theoretical understandings and practical experiences directed toward prevention of hazardous conditions and emergency situations. The student may obtain Red Cross Emergency Response Certification. 4 Cr

REM 207 Lifeguard Training and Aquatics Management

Students will acquire general information concerning pool sanitation and aquatics management, and will complete the course with American Red Cross lifeguard certification. Prerequisite: Swim 500 yds. including 200-yd. front crawl, 100-yd. breast stroke, 200-yd. front crawl or breast stroke. Swim 20 yd., surface dive to 9 feet, retrieve a 10-lb. brick and swim back holding onto brick with both hands. 3 Cr

REM 210 Nature-Based Tourism & Sustainable Development

This course will explore environmental, economic and social-cultural implications and challenges associated with the creation and management of nature-based tourism products and services. Students will meet with local stakeholders to develop an in-depth understanding of the complexities involved in nature-based and sustainable tourism development, including the challenges of managing an area for both conservation and sustainable development; issues pertaining to equitable distribution of economic benefits and social and cultural implications for indigenous cultures and local communities involved in or living near areas being developed for tourism. Prerequisite: REM 121, or permission of instructor. 3 Cr

REM 211 Recreational Hunting & Fishing

A course designed to familiarize the student with all the various forms of recreational hunting and fishing and to examine the impact of these activities on Maine people economically, recreationally and environmentally. This course also focuses on wildlife and the role that hunting and fishing play in wildlife management programs. Proper selection and use of equipment and current safety programs are addressed. 3 Cr

REM 212 Wilderness First Responder

This course will provide outdoor leaders and enthusiasts with the knowledge and skills necessary to deal with medical and traumatic emergencies in remote settings. Applicable to expedition work,

camping, backpacking, guiding, rangers and recreational travelers. Successful completion of this 72-hour course carries a three-year certification through the Wilderness Medical Associates and exceeds the Maine Guide's requirements for medical training. Prerequisite: Students must have CPR certification or be concurrently enrolled in a course that will be completed by the time the WFR course is finished. 4 Cr

REM 213 Principles of Coaching

A course to provide students with the basic competencies to teach and coach sports (usually soccer and basketball) in recreational as well as school situations. Activities include development of a philosophy, certification of coaches, and a study of the athletic educator. An in-depth look at the game including fitness, techniques, tactics and systems is taken. Each sport is approached from building the complete program. Prerequisite: sophomore standing. 3 Cr

REM 214 Recreational Underwater Archaeology

This course is designed to teach divers proper procedures in the study of underwater archaeology. The course takes place in the classroom and the pool in preparation for actual ocean exploration. Areas covered include archival research, reconnaissance, planning, fundamentals of vessel construction from sail to steam, mapping, wreck survey and mapping, recording data, photo-mosaics, excavation and conservation of artifacts, analysis and interpretation of site and artifacts, publication of findings, and underwater photography. Prerequisite: Basic Open Water certification or higher from an approved association; medical clearance. 3 - 6 Cr

REM 219 Introduction to Tourism

This course provides an introduction and overview of the tourism industry. Beginning with a broad perspective of the tourism industry, tourism organizations, tourism history, tourism sociology and tourism economics are explored. Narrowing in focus, students then learn about the impact of tourism on communities and strategies for sustainability. Students examine various sectors of the tourism industry and have the opportunity to explore their own special areas of interest. Prerequisite: ENG 101, or permission of instructor. 3 Cr

REM 221 Fundamentals of Search and Rescue

Designed to prepare people to participate effectively in official search and/or rescue activities administered by local, state, or federal agencies either as a volunteer working on a search and rescue team or as an employee of a governmental agency with

search and rescue responsibilities. A student who successfully completes this course may receive national certification. Prerequisite: REM 121, or permission of instructor. 3 Cr

REM 224 Athletic & Recreational Injury Management

The acquisition of basic skills and knowledge of the prevention, recognition and care of injuries normally occurring in athletic and recreational sports. The competencies acquired provide students with a sound foundation for the primary care of athletes and recreational participants. Prerequisite: REM 124 or permission of instructor. 3 Cr

REM 226 Recreation Program Planning

This course will provide students with the basic knowledge or programming principles and theories, assessing participant needs, the planning process, developing goals and objectives, program implementation and evaluation strategies. Students will concentrate on the role that programming plays in enabling leisure and in facilitating the recreational experience. This course emphasizes the practical application of the knowledge and skills gained through the course. Prerequisite: REM 213 or REM 230, or permission of instructor. 3 Cr

REM 227 Backcountry Expedition Skills

This course involves a multi-day expedition. Prior to the expedition, the course will focus on the planning and preparation process, minimal impact travel methods, physical training and the development of a solid risk management plan. During the expedition, students will keep a detailed journal including their challenges and peak experiences, their progress and the terrain, environmental stewardship and leadership considerations for backcountry expeditions. Following the expedition, students will complete a self-assessment of their performance and a portfolio designed to be useful for future expeditions. Prerequisite: REM 121 and REM 122, or permission of instructor. 3 Cr

REM 229 Camp Counseling

The purpose of this course is to introduce the student to organized camping through an understanding of history, administration, management, program development, counseling principles and evaluation methods. Prerequisite: REM 201, or permission of instructor. 3 Cr

REM 230 Outdoor Leadership

This course combines the practice of outdoor leadership with the study of leadership theory and group management. Students will improve their own

outdoor leadership capacities through practice, feedback and reflection. Professional practice, theories of leadership and judgment and decision making will be explored through readings, discussions and self-reflective projects. The class will work together at developing their own skills, helping others understand their strengths and characteristics and gaining experience in working with groups. Students will participate in an extended field experience where they will gain practice in leadership positions in various situations. Prerequisite: REM 121 and REM 123, or permission of instructor. 3 Cr

REM 245 Personal Fitness Training

A study of the scientific foundations of exercise, techniques of exercise, client consultation and assessment, program planning, and safety/emergency procedures. Course prepares students to take a certification exam for personal trainers. 3 Cr

REM 301 Park and Recreation Facilities Operations

Current practices in the operation and maintenance of parks and recreational facilities including both indoor and outdoor facilities. Students receive firsthand experience of site protection techniques, visitor management, and other problems involved in managing recreational facilities. Prerequisite: REM 202. 3 Cr

REM 305 Computer Applications in Parks and Recreation

A review of concepts combined with the practical application of software helps students gain an understanding of the Internet, spreadsheets and methods of electronic presentations. Use of the computer to enhance management tasks and program delivery is an important aspect of this course. Demonstration software packages may be available. Prerequisite: Ability to work independently. 3 Cr

REM 311 Recreation Services for Special Populations

A course to provide the student with a general understanding of leisure services for 'special' populations. Topics include current applicable legislation, disabling conditions, community recreation resources for special groups, architectural barriers, program planning and implementation. Prerequisite: REM 226 or permission of instructor. 3 Cr

REM 314 Facility Operations & Design

This course deals with the operation, maintenance and design of park and recreational facilities. Both

indoor and outdoor, man-made and natural, users and facilities themselves will be discussed. This course will familiarize students with the planning, design and construction of natural and man-made recreational resources. Topics will include planning theory and practice, design theory and special orientation, design techniques and construction plans. Prerequisite: REM 226 or permission of instructor. 3 Cr

REM 317 Principles of Experiential Education

This course will provide the student with an understanding of the foundations, theories and principles of experiential education, as well as the techniques utilized in experiential learning programs. Prerequisite: REM 201, or permission of instructor. 3 Cr

REM 319 Topics in Tourism & Hospitality Management

This course will provide an in-depth exploration of a variety of topics (one for each offering) within the management of the tourism and hospitality industry. Various approaches to the course will include interviewing successful entrepreneurs, examining internet promotions, site visits, developing plans of operation and others. Examples of topics include travel motivation, hotel management, restaurant operations, partnering and product development and others. The course is likely to include attendance at the Maine Governor's Conference on Tourism. This course may be repeated as topics vary. Prerequisite: REM 219 or permission of instructor. 3 Cr

REM 321 Recreation Administration and Supervision

An overview of administration including all functions of management. Classroom exercises and field work contacts concentrate on the administrative processes of policy development, decision making, personnel management, budgeting and financing, programming, public relations and office management. Included are evaluation procedures and research related to administration. Prerequisite: REM 226, or permission of instructor. 3 Cr

REM 323 Principles of Strength and Conditioning

An advanced course designed to explore principles and techniques of conditioning and strength training. Testing and evaluation, exercise techniques, and program design are covered. Prepares students to be eligible for the Certified Strength and Conditioning Specialist exam. 3 Cr

REM 327 Recreation Behavior & the Environment

This course is about recreational landscapes and how they are used by people. From wilderness areas to tourism developments, the course will look at the settings where people recreate, the psychological and social experiences they seek related to the environment, and their social and ecological impact on the landscape. This course explores characteristics of a landscape that are important in motivating recreation participation, and the experiences sought by outdoor recreationists. Visitor expectations and satisfaction related to the environment will be covered. Students will gain familiarity and experience with a range of methods of analyzing and measuring the physical and social impact of recreation in a variety of settings, including survey research, interviews, remote sensing and on-the-ground documentation. Prerequisite: ENG 101 and junior standing or permission of instructor. 3 Cr

REM 353 River Trip Guiding

Course provides an opportunity for upper class students to practice and perfect their outdoor leadership techniques by guiding other students on an extended river canoeing trip. Teaching and leadership methodologies, activity planning and organization, risk management implementation and other topics are put into practice through this experience. Prerequisites REM 121, REM 122, REM 123 and REM 124 (or WFR) plus REM 226. Students are also encouraged to have other certifications and licenses. Students registering for this course MUST receive written approval from current instructor. 3 Cr

REM 411 Recreation and Wilderness Resources

A study of managing natural resources for the purpose of outdoor recreation. Natural areas that range from manicured parks to pristine wilderness areas are examined in light of the different management philosophies, policies, and techniques needed to maintain them. Prerequisite: Junior standing or permission of instructor. 3 Cr

REM 412 Park Interpretation

A specialized course in preparing interpretive programs for recreational/park facilities and historic places. Selective media are discussed and used in the development of interpretive services. Examples of existing efforts in interpretation are explored. Prerequisite: Junior standing or permission of instructor. 3 Cr

REM 414 Grant and Proposal Writing

An introduction to the art and science of preparing grant proposals for nonprofit organizations. Emphasis is placed on writing and research skills. By examining the nature and interests of granting agencies and applicant organizations, students learn the importance of relationship-building and how to match funding needs with appropriate grant opportunities. The preparation of mock grant proposals takes students through the entire grant application cycle of need definition, grant research, program and budget planning, proposal writing, submission/review/funding, and post-award administration. Prerequisite: Junior standing or permission of instructor. 3 Cr

REM 431 Visitor Management in Conservation Areas

This course is for students studying Recreation & Tourism Management or Environmental Studies, and for any student who is interested in working for federal, state or non-profit agencies where managing recreational visitors is part of their work. Students will examine various avenues for managing recreational use in conservation areas. Visitor education, recommendations for types of use and regulation will be examined as options for managing recreational use. Strategies for modifying visitor behavior, based on social psychological models, will be studied to help students understand the diversity of approaches they may take in designing signage, in locating rangers and in working with volunteers. The course will include fieldwork which allows students to explore ways to control use with physical structures, trail design for screening and the use of physical barriers for visitor redirection. Prerequisite: REM 121, and junior standing, or permission of instructor. 3 Cr

REM 442 Recreation Seminar

A seminar to integrate previous course and field experiences. Emphasis is placed on problem-solving procedures using case studies. Studies of current issues, status, trends, and future directions in leisure and recreation are included. Prerequisite: REM 321 or permission of instructor. 3 Cr

REM 443 Recreation Leadership Practicum

Allows qualified students to gain personal experience teaching and leading recreation/fitness activities at the college level under supervised conditions. Students enrolled in this course will actually teach a .5-1.0 college credit course under the direct supervision of a UMM faculty member. Students must have current certifications and/or licenses to teach/lead the activity and must be approved by a

supervising UMM faculty member before registering for the course. 1 - 3 Cr

SED 100 Animal Behavior & Selection of Service Dogs

This is an introduction to techniques for animal training with a focus on owner-trained service dogs. A service dog is one specially trained to perform a task or work that aids a person with a physical or emotional disability, thus allowing them more freedom to live more independently. The course will cover basic psychological principles of operant conditioning used with animal training. There will also be hands-on opportunities for basic dog training that require the application of operant learning techniques. The optional lab will have two main components. The first component will be training qualified dogs to prepare them to be certified as therapy dogs. The second component will be helping train a service dog for a specific task to assist its disabled owner. 2 Cr

SED 101 Animal Behavior & Selection of Service Dogs Lab

This is an introduction to techniques for animal training with a focus on owner-trained service dogs. A service dog is one specially trained to perform a task or work that aids a person with a physical or emotional disability, thus allowing them more freedom to live more independently. The course will cover basic psychological principles of operant conditioning used with animal training. There will also be hands-on opportunities for basic dog training that require the application of operant learning techniques. The optional lab will have two main components. The first component will be training qualified dogs to prepare them to be certified as therapy dogs. The second component will be helping train a service dog for a specific task to assist its disabled owner. 1 Cr

SED 201 Dimensions of Exceptionality in the Classroom

The purpose of this course is to provide an understanding of the characteristics and needs of K-12 students with exceptionalities. Students in this survey course will learn about a range of topics including the history of special education; the provisions of IDEA; relevant legal issues in special education; program planning and placement with an emphasis on inclusive practices; transitioning students to adulthood; classroom accommodations and modifications; and instruction of students with exceptionalities. Students will learn the characteristics of various disabilities, and how they affect individuals and their families. Factors that put

students at risk, cultural and linguistic diversity, and giftedness are also explored. Prerequisite: ENG 101, or permission of instructor. 3 Cr

SED 311 Working with Families of Children with Disabilities

This is an in-depth analysis of families with children who have disabilities. Using a lifespan approach, the class will explore the experiences of families and their journeys through the special education and adult service/support system. The class will also examine literature related to family systems and family functions, discuss and practice effective communication skills to use when interacting with family members, and examine some of the primary concerns expressed by family members. Woven throughout the course will be ongoing discussions about the ethical and moral decisions that face professional educators as they attempt to support and provide services to families and students with disabilities. Prerequisite: SED 201, or permission of instructor. 3 Cr

SED 316 Working with Students with Emotional Disabilities

The purpose of this course is to facilitate student understanding of theory, issues and practices applicable to the education of K-12 students with emotional disabilities. Students will be introduced to DSM disorders that are relevant to school-age students. These disorders will be explored at length and students will be expected to demonstrate an ability to synthesize their knowledge of such disorders with sociocultural factors related to students in order to develop appropriate educational programming. Additional course emphases include: respectful communication and collaboration as a member of a wrap-around team designed to support a student with an emotional disability; identification of appropriate community and diagnostic resources and personal reflection. Prerequisite: SED 345 or permission of instructor. 3 Cr

SED 320 Special Education Law

Students will study the American legal system and procedural due process in order to develop a framework for addressing legal issues relating to students with disabilities. The six principles of the Individuals with Disabilities Education Act will be covered, as well as providing for a free appropriate public education; identifying and assessing students; educating in the least restrictive environment; providing related services; addressing discipline issues; and finding solutions to challenging situations facing students with disabilities. The role of the federal, state and local government in special

education issues will also be covered, with special emphasis on case and regulatory law, including Maine regulations. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 321 Data & Standards-Based IEP Development

A course designed to provide teacher training in the writing of standards-based individualized education program (IEP) goals and objectives. This course will assist in identifying the useful data necessary to make appropriate decisions based on present levels of academic achievement and functional performance. Identified data will assist in writing goals, objectives and benchmarks that are measurable and can be implemented in the classroom. Major emphasis will be placed on aligning the IEP's goals and objectives with those of the general education curriculum and state standards. Attention will also be given to information used in making numerous other decisions that are based on the standards, goals and objectives for students with significant disabilities. Prerequisite: SED 201 and SED 335, or permission of instructor. 3 Cr

SED 325 Assessment in Special Education

Students in this course will examine the principles and procedures of non-discriminatory evaluation under IDEA as it relates to K-12 students with mild to moderate disabilities. Emphasis will be placed on basic terminology; legal and ethical principles related to the assessment of students with special needs; technical adequacy of assessment instruments; identification of assessment instruments; administration of individualized norm-referenced assessments; and effective communication of evaluation results. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 329 Internship in Special Education

Students enrolled in this course will attend and engage at a field placement setting. The number of hours required in the field will be determined by the number of credits for which the student enrolls. During the field placement, the student will engage in classroom instruction and management. Students will develop a unit plan, teach lessons and engage in formative and summative assessment. Students will explore evidence-based practices in order to develop lesson plans that are directly aligned with IEP goals and district/state curriculum/standards, and to identify/design individualized accommodations, modifications or strategies that are essential for the student with special needs to benefit from their educational program. The student will develop mock written communications with professionals and

parents/caregivers. Prerequisite: SED 330 and SED 370, or permission of instructor. 1 - 9 Cr

SED 330 Math in Special Education

This course is designed to help prospective special education teachers understand the Maine Learning Results, national mathematics standards, instructional strategies and assessment techniques, and to develop organizational structures related to teaching mathematics to diverse learners in elementary schools. Topics include problem solving, finding numerical patterns, fractions and percents, measurement, characteristics of geometric shapes, developing positive attitudes towards mathematics, and the use of manipulative and computer software. Methods of adapting lessons for diverse learning needs and increasing the mathematics skills of children with special needs in inclusive classrooms are the central issues to be addressed. Prerequisite: SED 201, or permission of instructor. 3 Cr

SED 335 Program Planning for Students with Disabilities

Students will develop an understanding of the process by which students are found eligible for special education services, and how to plan appropriate individualized education programs (IEPs) for students who are eligible for special education services. Legal and procedural requirements of program planning are reviewed, and an emphasis is placed upon applying evaluation results to the development of a professional IEP. Communication and collaboration in collaborative group work is emphasized. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 340 Communication & Collaboration in Special Education

This course provides the special educator with techniques and skills for effective communication, consultation and collaboration with families, general educators, and other professionals. The main emphasis of the course is on understanding collaborative consultation as a process that enables people with diverse expertise to work together to generate solutions for educating students with special needs. The course will increase awareness of the framework and rationale for collaboration, the facilitating factors involved, and strategies for implementation. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 345 Behavioral Support & Intervention

This course provides instruction in a variety of behavior strategies, including the development of social skills. Emphasis is placed on students with

disabilities in a broad range of educational environments. Proactive systems of behavior intervention, management and modification are examined to target specific behaviors while providing an environment that encourages inclusion, self-advocacy and increased independence. Methods of data collection and analysis are explored throughout this course. Prerequisite: EDU 216 or SED 201 or permission of instructor. 3 Cr

SED 355 Transitional Issues for Students with Disabilities

This course provides instruction in techniques and resources used to assist individuals with special needs experience success in school settings and transition into a wide range of environments. Emphasis is placed on transition into academic, independent living and vocational settings through the design of instructional programs that address individual needs and maximize quality of life. Accessibility, life skills, community-based instruction, and assistive technology are explored at length. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 362 Typical & Atypical Expressive & Receptive Language

The purpose of this course is to inform students about the stages of expressive and receptive language. It will explore syntax, morphology, semantics, phonology, and pragmatics, as well as atypical development, individual differences, and how and why they occur. Studies will apply theories of child development, speech and hearing science and language development and disorders in order to devise language interventions for students with communication disorders. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 365 Differentiated Instructional Strategies

A course designed to provide K-12 pre-service teachers with the knowledge and skills to create and teach lessons that are varied to meet the individual learning needs of all students. Students will engage in various activities through which they will learn to implement teaching strategies designed to create multiple paths so that students with varying abilities, interests or learning needs experience appropriate ways to use, develop and apply concepts as part of the learning process. Students will learn how to differentiate instruction by varying the content, process and/or product in their units and lessons to meet the needs of all learners. A field experience is required. Prerequisite: SED 201, or permission of instructor. 3 Cr

SED 370 Teaching Reading/Writing to Children with Special Needs

This course will facilitate the development of competencies related to the identification of diverse reading and writing skills and the development of appropriate individualized instructional goals and methods for individuals with exceptionalities in reading and writing. A practicum experience is a requirement of the course. Prerequisite: SED 201 or permission of instructor. 3 Cr

SED 380 Teaching Students with Autism Spectrum Disorders

Students in this course will gain knowledge of the IDEA and DSM-IV definitions of Autism Spectrum Disorders, prevalence and possible causes. Characteristics, teaching strategies, adaptations, and related disorders secondary to Autism Spectrum Disorders will be explored. 3 Cr

SED 490 Student Teaching in Special Education

Student teachers participate in a variety of supervised experiences in a school while working with children with mild to moderate disabilities. Working with a special educator, their students and other school personnel, student teachers expand and refine their knowledge and skills related to the Council for Exceptional Children standards for teachers of students with mild to moderate disabilities. Student teachers will increase their responsibilities over time, with a minimum of two weeks' full-time teaching in the role of special education teacher. Students participate in an orientation and a bi-weekly seminar during their student teaching experience. Students must participate in a portfolio defense at the conclusion of the student teaching experience, at which time the student teacher will provide evidence of achievement of the special education standards outlined in the syllabus. Prerequisites: Matriculation into degree or certification program; application to student teach submitted and approved by education faculty semester prior to student teaching; acceptance by the Student Teaching Committee. Among other factors considered by the committee: (a) successful completion of Praxis I and II prior to student teaching application in October or March; (b) GPA of 2.5 overall and in SED courses; (c) completion of 27 credits of SED coursework prior to student teaching. 12 Cr

SOC 114 Intro to Sociology

The study of the concepts, theories and research findings of the discipline of sociology. Stressed are the following concepts, institutions and topics: culture, society, socialization, the family, social stratification, intergroup relations, deviance,

demography, collective behavior, popular culture, social movements, and social change. 3 Cr

SOC 219 Special Topics in Sociology

Course designed to allow students to pursue study in an area within Sociology. Courses vary vary in content in response to student interest and demand. Recent offerings have included Crime and Society, Police and Society, and Rural Poverty. Prerequisite: ANT 101 or SOC 114 or permission of instructor. 3 Cr

SOC 301 Rural Sociology

A course focusing on the social institutions of rural society. Emphasis is on the family, church, and schools. The impact of changes in the industrialized urban areas upon rural life is examined. Special attention is paid to problems of rural Maine. Prerequisite: SOC 114 and junior standing, or permission of instructor. 3 Cr

SOC 319 Special Topics in Sociology

Course designed to allow students to pursue study in an area within Sociology. Courses vary vary in content in response to student interest and demand. Recent offerings have included Crime and Society, Police and Society, and Rural Poverty. Prerequisite: ANT 101 or SOC 114 or permission of instructor. 3 Cr

SOC 320 Sociology of Poverty

This course will provide an overview of international and national trends in wealth distribution, with a focus on poverty in rural Maine. Theories of poverty, its definition, nature and causes will be reviewed from a sociological perspective, exploring the intersections of gender, race, ethnicity and class as they impact those in poverty. Students will engage in a self-reflective process, identifying their own class status and the ways in which class has enhanced or constrained personal development. In this course, poverty is viewed as a socially structured phenomenon, influenced by social, economic and political forces in historical context. Prerequisite: SOC 114 and sophomore standing, or permission of instructor. 3 Cr

SOC 419 Special Topics in Sociology

Course designed to allow students to pursue study in an area within Sociology. Courses vary vary in content in response to student interest and demand. Recent offerings have included Crime and Society, Police and Society, and Rural Poverty. Prerequisite: ANT 101 or SOC 114 or permission of instructor. 3 Cr

SPA 101 Elementary Spanish I

Developing skills in reading and writing and in speaking and listening to Spanish. The course provides students with opportunities for self-expression and encourages effective oral and written communication skills. Students begin to acquire a basic proficiency in Spanish, and are introduced to the common phrases and vocabulary, the verb forms of the present tense, and the grammar and structure of the language. 3 Cr

SPE 104 Public Speaking

Students will investigate and put into practice the various styles and methods of communicating publicly, from notes, *ex tempore*, memorized, and reading aloud. Students will learn the skills relevant to good speech communication: conception, organization, techniques of generating interest, the use of audio-visual aids, audience inclusion and involvement, and overcoming performance apprehension. 3 Cr

SPE 105 Professional Online Communications

Students will investigate and put into practice the various styles and methods of communicating publicly utilizing online technologies. Students will learn the skills relevant to good speech communication: conceptualization, organization, techniques of generating interest, the use of audio-visual aids, audience inclusion and involvement and overcoming performance apprehension. 3 Cr

SSC 210 Human Sexuality

An interdisciplinary inquiry into the historical, cultural and developmental issues in human sexuality. Current literature and research are reviewed. As this course includes an examination of sexuality, it includes materials that may be deemed explicit or provocative for many. Individual discretion is advised. Prerequisite: ENG 101, sophomore standing or permission of instructor. 3 Cr

SSC 420 Research Methods & Design

A course designed to nurture an appreciation and understanding for the manner in which any question of interest can be methodically approached and possibly answered by applying a set of sequential methods. Students learn how to find information, read journal articles, pose research questions, select appropriate methods, select participants, select appropriate designs and statistical analyses, report research findings, and do the above in the most ethical manner. The primary goals in this course are for each student to gain experience with conducting research and writing research reports for a community partner. This course includes a Service-

Learning and Community Engaged (SL/CE) component. During the semester, students are expected to make periodic progress reports on their projects, culminating in formal (convention-style) presentations to the class and community partners. Prerequisite: MAT 113, junior standing, or permission of instructor. 4 Cr

THE 101 Intro to Theatre

An introduction to the literary and practical aspects of the theatrical idiom by participating in classroom discussions on a survey of plays integral to the development of the theatre and the theatrical context. The class also includes participation in the making of theatre, through either involvement in a departmental production or a pre-approved independent project. Subjects include script reading and analysis, the creative components and structure of theatrical art, stage conventions, historical perspectives, and the nature of creative and collaborative work. 3 Cr

THE 102 Fundamentals of Acting

An introduction to the talents and skills used on stage by the actor. Students' voices, body movement, and imaginations are developed through a series of exercises. Emphasis is on analysis of characters and scripts as well as performance skills. 3 Cr

THE 116 Play Production I*Play Production: Technical*

Meets weekly for students who wish to fulfill technical roles in UMM theatrical productions. During classes students participate in production meetings (during which communication and planning for productions occurs), workshops in the backstage arts (lighting, sound, costume and set design), and general theatre support activities (set construction, electrics, publicity, box office and house management). May be repeated for credit.

Play Production: Performance

Students who wish to receive credit for playing roles in UMM theatrical productions should enroll in this course. Auditions held at the beginning of each term are open to all, whether enrolled in the course or not. Students who are not cast may switch to Play Production: Technical. Those involved in certain technical positions (such as stage management) may meet during this class time. May be repeated for credit. 1 - 3 Cr

THE 119 Topics in Theatre

Studies in practical aspects and styles of theatre production. Practical elements can include stage management; costume, set, lighting or sound design; or makeup, movement, and voice for the actor.

Styles can include readers' theatre, non-Western theatre, improvisation, or musical theatre. Prerequisite: 100-level theatre course or permission of instructor. May be repeated for credit. Possible topics include Stagecraft and Design and Directing. 3 Cr

THE 219 Topics in Theatre

Studies in practical aspects and styles of theatre production. Practical elements can include stage management; costume, set, lighting or sound design; or makeup, movement, and voice for the actor. Styles can include readers' theatre, non-Western theatre, improvisation, or musical theatre. Prerequisite: 100-level theatre course or permission of instructor. May be repeated for credit. Possible topics include Stagecraft and Design and Directing. 3 Cr

THE 319 Topics in Theatre

Studies in practical aspects and styles of theatre production. Practical elements can include stage management; costume, set, lighting or sound design; or makeup, movement, and voice for the actor. Styles can include readers' theatre, non-Western theatre, improvisation, or musical theatre. Prerequisite: 100-level theatre course or permission of instructor. May be repeated for credit. Possible topics include Stagecraft and Design and Directing. 3 Cr

VID 101 Digital Video Production

This course provides the basics of video production, incorporating both lecture and laboratory experience. Students will learn about shot composition, sound, lighting, and editing, all from a digital video format. Students will produce and edit several projects from a variety of media formats, depending on the interests of the student. Prerequisite: Sophomore standing or permission of instructor. 3 Cr

WRI 414 Grant and Proposal Writing

An introduction to the art and science of preparing grant proposals for nonprofit organizations. Emphasis is placed on writing and research skills. By examining the nature and interests of granting agencies and applicant organizations, students learn the importance of relationship-building and how to match funding needs with appropriate grant opportunities. The preparation of mock grant proposals takes students through the entire grant application cycle of need definition, grant research, program and budget planning, proposal writing, submission/review/funding, and post-award administration. Prerequisite: Junior standing or permission of instructor. 3 Cr

WST 110 Intro to Women's Studies

This course examines women's positions in and contributions to society, exploring the genesis, development, and impact of our culture's assumptions about women's nature and women's roles. As an interdisciplinary study of women's experience in cross-cultural and historical perspective, the course investigates women's personal and public lives, and seeks to identify and understand the particularly "female" aspects of these experiences. Students are introduced to the issues, perspectives, and findings of this relatively new field of scholarship, which examines the role of gender in the construction of knowledge. Prerequisite: ENG 101 or permission of instructor. 3 Cr

WST 212 Special Topics in Women's Studies

Courses designed to allow students to pursue study in an area within Women's Studies. Courses vary in content in response to student interest and faculty availability. Some possible courses could include: Anthropology of Women; Women and Globalization; Feminist Psychology, and many more. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr

WST 312 Special Topics in Women's Studies

Courses designed to allow students to pursue study in an area within Women's Studies. Courses vary in content in response to student interest and faculty availability. Some possible courses could include: Anthropology of Women; Women and Globalization; Feminist Psychology, and many more. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr

WST 412 Special Topics in Women's Studies

Courses designed to allow students to pursue study in an area within Women's Studies. Courses vary in content in response to student interest and faculty availability. Some possible courses could include: Anthropology of Women; Women and Globalization; Feminist Psychology, and many more. Prerequisite: Dependent upon the course offered, or permission of instructor. 3 Cr