
COURSE DESCRIPTIONS

Designation of Courses

- 100-199 Introductory level: primarily for freshmen
 200-299 Intermediate level: in some cases presupposes introductory coursework, related experience, or intellectual maturity; primarily for freshmen and sophomores
 300-399 Advanced level: usually presupposes previous work and involves specialized study of a subject; primarily for juniors and seniors
 400-499 Culminating level: presupposes extensive previous work in the discipline and well-developed discipline-specific skills; usually taken by seniors

In course descriptions, credit in semester hours is indicated by a number in parentheses.

ACCOUNTING COURSES (ACCT)

ACCT 201 PRINCIPLES OF ACCOUNTING I (3) This course introduces basic principles of financial accounting and their application in the analysis, recording, and interpretation of business transactions.

ACCT 202 PRINCIPLES OF ACCOUNTING II (3) *Prerequisite: ACCT 201 (C- or better).* This course reinforces and expands the introduction of basic financial accounting principles. It introduces basic managerial accounting concepts and their application to business decision-making.

ACCT 301-302 INTERMEDIATE ACCOUNTING (3, 3) *Prerequisites: ACCT 201-202.* This sequence is an advanced treatment of theory and techniques related to asset, liability, and capital accounts; statement of cash flows; financial statement analysis; and special accounting problems.

ACCT 310 GOVERNMENTAL/NON-PROFIT ACCOUNTING (3) *Prerequisite: ACCT 301.* This course is a study of accounting principles and practices of governmental and non-profit institutions.

ACCT 311 PERSONAL INCOME TAX (3) Students will study the philosophy of taxation, the general concepts of gross income, tax accounting methods, depreciation, tax incentives, capital gains and losses, and specific forces on tax laws as they apply to individuals.

ACCT 313 STRATEGIC COST MANAGEMENT (3) *Prerequisites: ACCT 201-202.* This course deals with concepts and objectives of cost accounting; cost information systems and accumulation procedures; planning and control of factory overhead; materials and labor planning and control; planning of profits, costs, and sales; controlling costs and profits; and costs and profit analysis.

ACCT 319 CORPORATE AND PARTNERSHIP TAXATION (3) This course, designed for marketing, management, economics, business administration, and accounting majors, covers federal income taxation of corporations and partnerships. It includes basic tax planning strategies and introduces tax research techniques.

ACCT 323 BUSINESS LAW FOR ACCOUNTANTS (3) This course is a study of the accountant's legal responsibility including contracts, uniform commercial code, secured transactions, securities, suretyship, and bankruptcy.

ACCT 325 MANAGEMENT ACCOUNTING (3) *Prerequisite: ACCT 202.* This course addresses many accounting tools including cost behavior, budgeting, and performance reporting used by managers to assist them in operating business decisions.

ACCT 360 ACCOUNTING INFORMATION SYSTEMS (3) *Prerequisite: ACCT 202.* Accounting information systems comprise interrelated activities, documents, and technologies designed to collect data, process them, and report information to a diverse group of internal and external decision makers in organizations. This course covers the design, management and control, and audit of computer-based accounting systems.

ACCT 370 FRAUD AND WHITE COLLAR CRIME (3) *Prerequisite: ACCT 202.* This course examines the various types of fraud and white collar crime, the criminals who commit fraud and white collar crime, legal, law enforcement, and prosecutorial issues associated with investigating and prosecuting these crimes and their financial impact on organizations and society.

ACCT 397 INDEPENDENT STUDY IN ACCOUNTING (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

ACCT 398 SPECIAL TOPICS IN ACCOUNTING (1-3) [Credit depends on topic.] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

ACCT 399 INTERNSHIP IN ACCOUNTING (1-6) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* Internships are offered in cooperation with a sponsoring individual or organization to provide students with ongoing educational opportunities in accounting beyond the classroom that are appropriately related to their area of emphasis. (See “Internships.”)

ACCT 401 ADVANCED ACCOUNTING (3) *Prerequisites: ACCT 301-302.* This course focuses on the study of specialized accounting theory and techniques of partnerships and consolidations.

ACCT 421 AUDITING PRINCIPLES (3) *Prerequisites: ACCT 301-302.* This course examines the concepts and procedures used in auditing and introduces auditing standards and methods used to obtain evidence.

ACCT 470 FORENSIC ACCOUNTING (3) *Prerequisite: ACCT 202.* Forensic accounting is the application of investigative and analytical skills for the purpose of resolving financial issues in a manner that meets standards required by courts of law. This course covers the accounting and legal foundations of forensic accounting, forensic accounting tools and standards, and common applications of forensic accounting including fraud investigation, organized crime and terrorism.

ART COURSES (ART)

ART 110 INTRODUCTION TO VISUAL ART (3) Students will become familiar with the significance of the visual arts through the study of its themes, artists, styles, and forms. In this course, students may experience the visual arts through hands-on learning, slide lectures, or small group activities.

ART 118 CERAMICS I (3) This general survey course of pottery making includes studio assignments in hand building, use of the potter’s wheel, glaze formulation, elements of design and decoration, and firing of products. Lectures, demonstrations, critiques, and discussions of ceramicists, periods, and styles provide learning experiences. Second-semester work involves further studies of media, technique, and related overviews.

ART 122 3-D FORMS AND SPACE I (3) Three-dimensional art production in this course focuses on sculptural processes (assemblages, carving, modeling and the like) to be realized in and/or outside of the traditional studio space. Art creation centers on both traditional and conceptual imagery and themes. The course includes lectures, demonstrations, critiques, applicable field experiences, discussions of sculptors, periods, styles, and a field trip.

ART 131 SURVEY OF ART HISTORY I (3) These courses survey Western and non-Western art and architecture and focus on works of art as expressions of the cultures which produced them. Survey of Art History I focuses on the art of prehistory through the early Renaissance. Survey of Art History II focuses on the art of the early Renaissance up to the beginning of the Modern Age. Courses include slide lectures, discussions, and projects.

ART 132W SURVEY OF ART HISTORY II [Writing Enriched] (3) *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* These courses survey Western and non-Western art and architecture and focus on works of art as expressions of the cultures which produced them. Survey of Art History I focuses on the art of prehistory through the early Renaissance. Survey of Art History II focuses on the art of the early Renaissance up to the beginning of the Modern Age. Courses include slide lectures, discussions, and projects.

ART 151-152 DESIGN FUNDAMENTALS I, II (3, 3) *Prerequisite: ART 151 for ART 152.* Enrollment preference given to art majors. This sequence analyzes the relationship of visual components to organizational components and their use as agencies of expression in works of art through slide-illustrated lectures, discussions, critiques, studio assignments in two and three dimensions, and a field trip.

ART 154 GRAPHICS: PROCESS AND TECHNIQUE (3) This is an introductory studio level course exploring fundamental graphic design concepts. Basic design principles and the invention of casual and spatial form within contexts relevant to the design of communication and products will be introduced. Students will gain a working knowledge of the graphic design process through skill building techniques and software applications. Project assignments will coincide with lecture materials, and will enable students to develop critical thinking and visual problem solving skills. Students will acquire a basic skill set for developing graphic design elements.

ART 156 DRAWING: TECHNIQUES AND TRADITIONS (3) An introduction to the fundamentals of drawing with an emphasis on representational drawing skills, perception and traditional drawing media. Students are exposed to the historical aspects of the discipline of drawing and to a variety of traditional techniques and processes. Learning involves demonstrations, critiques, and discussions of artists, periods, and styles.

ART 162 PAINTING: TECHNIQUES AND TRADITIONS (3) This course introduces students to traditional painting practices and processes through projects that cover the basic elements of form, color, and technique. Students are exposed to the history of painting and the range of possibilities offered by traditional approaches. Emphasis is on creating illusionary space. While oil painting is the primary medium used, students will explore water based paints and collage techniques.

ART 166 PHOTOGRAPHY I (3) This course is an introduction to photographic image making, the various methods of output, and basic theory about the cultural significance of photography. Primary emphasis is given to digital photography; students are required to furnish digital camera and accessories. Assignments, lectures, readings, and excursions progressively build on each other to provide students with a comprehensive overview of both the history of the medium and its contemporary practice.

ART 218 CERAMICS II (3) *Prerequisite: ART 118.* This general survey course of pottery making includes studio assignments in hand building, use of the potter's wheel, glaze formulation, elements of design and decoration, and firing of products. Lectures, demonstrations, critiques, and discussions of ceramicists, periods, and styles provide learning experiences. Second-semester work involves further studies of media, technique, and related overviews.

ART 222 3-D FORMS AND SPACE II (3) *Prerequisites: ART 122, 151, 152.* In this course students continue their study of sculptural processes introduced in ART 122. Additional interpretations and applications of both traditional and conceptual imagery, themes, media, and techniques are explored and developed.

ART 256 DRAWING: CONCEPTS AND INNOVATIONS (3) *Prerequisites: ART 151, 152, and 156.* This course provides an exploration of how traditional drawing evolves into new visual processes and concepts through continued refinement of perceptual, analytical and imagined interpretations. Print-making processes and mixed media explorations will be introduced as a means to further develop visual expression.

ART 262 PAINTING: ILLUSION AND BEYOND (3) *Prerequisites: ART 151, 152, 156, and 162.* An exploration of how traditional painting evolves into new visual processes and concepts through continued refinement of perceptual, analytical and imagined interpretations. Projects introduce the purposes and effects of color organization, color perception, and color theory. Emotive, symbolic, descriptive, and structural uses of color are explored as are abstract and non-objective modes of representation. Oil painting is the primary medium used.

ART 266 PHOTOGRAPHY II (3) *Prerequisite: ART 166.* This course provides an exploration of black-and-white printing techniques and the use of light as a means of creative control. Students learn darkroom techniques, the zone system, studio lighting, and the effects of different papers and films through lectures, demonstrations, assignments and laboratory practice. Lab fee covers paper, film, and access to 35 mm film cameras.

ART 267 PHOTOJOURNALISM (3) *Prerequisite: ART 166.* This introduction to the principles and practices of journalistic photography includes a study of the history of newspaper and magazine photography. Major emphasis will be placed on the techniques of taking, developing, and printing photographs for newspapers and magazines. Students may serve as staff photographers for the Critograph, Argonaut, and/or other campus publications.

ART 274 GRAPHICS: METHODS AND PRACTICE (3) *Prerequisites: ART 151, 154.* This intermediate level course provides students with a survey of graphic design from concept through production. The emphasis on visual problem solving and focus on the theory of design methods will help students further refine visual thinking and integrate basic studies through applied problems. Through experimentation, design problems are defined and organized, and students will manipulate imagery, typography, and message to arrive at successful design solutions. Students will gain an awareness of potential solutions and will make informed design decisions.

ART 294 GRAPHICS: INNOVATION AND ANALYSIS (3) *Prerequisites: ART 152, 156, and 274.* This advanced level course will focus on graphic design problem solving and promote analysis of solutions. Students will concentrate on the relationship between message and media, and the exploration of both digital and traditional production techniques. Studio projects will be student driven and include problems integrating typographic, photographic, and historical concepts in graphic communication. Students will be expected to explore, experiment, and make decisions as they relate to standards of professional practice.

ART 322 ADVANCED 3-D FORMS AND SPACE (3) *Prerequisites: ART 122, 151, 152, and 222.* Advanced level study in three-dimensional media and aesthetics--like those of two-dimensional studies--offers opportunities for advanced concept development plus three-dimensional form and space explorations. Students will combine these practices with other art and non-art experiences toward the completion of three-dimensional works eliciting significant content, combined with noted growth of critical evaluative abilities through group discussions and critiques.

ART 329 ART OF CLASSICAL ANTIQUITY (3) This course examines the classical foundations of western art and architecture, beginning with the earliest work in Greece and ending with the collapse of the Roman world order.

ART 333 RENAISSANCE ART (3) This course follows the development of the Renaissance in the fifteenth and sixteenth centuries in northern and southern Europe from the Medieval era through the High Renaissance.

ART 335 TOWARD A MODERN WORLD (3) This course examines the movements of the seventeenth, eighteenth, and nineteenth centuries from the reactions of the Baroque to the battles between the Academy and Avant-Garde. Slides serve as a primary teaching aid along with the text(s).

ART 337 HISTORY OF WESTERN ARCHITECTURE I (3) This course explores the development of architecture in Western European culture from the Paleolithic Era to the end of the Middle Ages.

ART 338 HISTORY OF WESTERN ARCHITECTURE II (3) This course examines the changes in Western architecture during the Renaissance and follows the development of the ideas and the ultimate rejection of them in the twentieth century.

ART 340 20TH CENTURY ART AND CONTEMPORARY ISSUES (3) The triumph of the Avant-Garde is studied in the painting, sculpture, photography, architecture, and mixed media works of the twentieth century.

ART 354 WEB DESIGN (3) *Prerequisites: ART 152, 156, and 274.* This course provides experience in basic web design and development principles. The course will focus on the theory and practice of using computer-driven software programs in the creation of effective multi-page interface design. Students

will explore web design concepts, including project planning, layout, usability, accessibility, information design, site structure, site management, and graphic design in context of the web. Students will produce and publish basic websites using HTML, cascading style sheets (CSS), forms, and tables.

ART 356 **ADVANCED STUDIO STUDIES: DRAWING (3)** *Prerequisites: ART 151, 152, 156, 256 or 257, and 262* This course provides advanced level study in drawing that offers opportunities for advanced ideation, visual perception, and the organization of experience into compositions. Primary emphasis is on developing visual expression, skill in using various materials, and growth of critical evaluative abilities through group discussions and critiques. Students are expected to carry out sustained involvement in specific projects focused on process and content.

ART 357 **FIGURE DRAWING (3)** *Prerequisites: ART 156, 256.* This course involves drawing from a model and employing various media and ranges of interpretation of the figure in art from quick studies to finished portraits and figure groupings.

ART 362 **ADVANCED STUDIO STUDIES: PAINTING (3)** *Prerequisites: ART 151, 152, 156, and 262.* This course provides advanced level study in two-dimensional media that offers opportunities for advanced ideation, visual perception, and the organization of experience into compositions. Primary emphasis is on developing visual expression, skill in using various materials, and growth of critical evaluative abilities through group discussions and critiques. Students are expected to carry out sustained involvement in specific projects focused on process and content.

ART 366 **ADVANCED STUDIO STUDIES: PHOTOGRAPHY (3)** *Prerequisite: ART 266.* This course provided advanced level study in the use of the photo image as part of a broad vocabulary of image-making processes. Students explore cyanotype, van dyke brown, gum bichromate printing, collage, reproduction, and transfer techniques, and are given a working knowledge of the graphic arts films and print films. They will also examine historical and contemporary precedents that relate to their own work so that their individual explorations can be brought into dialogue with other perspectives. Lab fee applies. Students are required to have their own light meters.

ART 394 **TYPE AND VISUAL COMMUNICATION (3)** *Prerequisites: ART 152, 156, and 274.* This course involves the use of typography to create meaning. Students will experiment with typographic composition, contrast, text, and value in combination with language. Students will learn the technical aspects of typography and will be exposed to historical developments in typography. An intensive introduction to the fundamentals of type from individual letterforms to large bodies of textual information will be introduced and evaluated as they relate to visual communications. Students will learn the principles of typography and utilize them as vehicles for visual communication.

ART 397 **INDEPENDENT STUDY IN ART (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

ART 398 **SPECIAL TOPICS IN ART (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

ART 399 **INTERNSHIP IN ART (1-12)** *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* Internships are offered in cooperation with a sponsoring individual or agency to provide students with ongoing educational opportunities in art beyond the classroom that are appropriately related to their area of emphasis. (See "Internships.")

ART 402 **SENIOR STUDIO SEMINAR: CONTEXT, CRITICISM, AND CRAFT (3)** *Prerequisites: ART 122, 131-132, 151-152, 162, 166, 256 and 6 hours of other ART courses 200-level and above.* The senior seminar experience in art prepares students for active, life-long engagement in the studio arts. Students will pursue independent research and publication through a semester-long project. Research will result in a public presentation the form of which will be decided in conjunction with the instructor.

Projects may include an exhibition or installation, a written thesis with a public defense, community-based research, web-based publication, and/or other forms of public dissemination. Through both inventive and interpretive participation in visual arts activities, students will demonstrate skills in critical thinking, creative problem-solving, and intra/inter personal communication.

ART 405 ART STUDIO WORKSHOP (1-3) *Prerequisites: Basic art experience and approval of the instructor.* This course is an on- or off-campus activity in studio art workshops under specialized instruction (drawing, painting, printmaking, sculpture, ceramics, crafts, photography). The student will be responsible for related expenses. Satisfactory/Unsatisfactory credit only.

ART 407 PORTFOLIO PREPARATION (2) *Prerequisites: ART 152, 156, and 294.* This course focuses on student development of building a professional portfolio (print and electronic). Students will explore self-promotion and prepare for a career or further study in graphic design.

ART 408 GRAPHIC DESIGN STUDIO I (1) *Prerequisites: ART 152, 156, and 294.* This advanced studio course focuses on independently solving design problems. This course gives students the freedom and responsibility to pursue practical project work and research, to reflect their personal direction. It also prepares students for the capstone Graphic Design Studio II course.

ART 409 GRAPHIC DESIGN STUDIO II (3) *Prerequisites: ART 152, 156, 294, 394, 407, and 408.* This culminating course in graphic design explores issues pertaining to design and society while concentrating on the development of creativity, emphasis on pre-professional training in advanced design problems, research, writing, presentation, and related professional skills. This course gives students the freedom and responsibility to pursue practical project work and research, to reflect their personal direction. Interdisciplinary course work may be appropriate.

ART 411 SUPERVISED PRACTICUM: CAMPUS PUBLICATIONS (1-3) Enrollment in these courses is limited to students holding art offices on the editorial or related staffs of the *Critograph*, *Argonaut*, or *Prism*. Requirements and hour designations are established between instructor and student on an individual basis. Satisfactory/Unsatisfactory credit only.

ART 480 DESIGN PRACTICUM (3) *Prerequisite: a background of working in the discipline and consent of instructor.* This course provides students with professional practice in graphic design. Practical work experience in the course includes client work approved by art faculty. The course functions much like a professional design agency where students maintain clients, and learn about account management, and production. Students will gain an understanding of professionalism and business knowledge while providing a service that would strengthen their portfolio.

ATHLETIC TRAINING COURSES (A T)

A T 100 INTRODUCTION TO ATHLETIC TRAINING (3) This course is an introductory course to the fundamentals of athletic training. This course introduces concepts and practical skills of athletic training, including the prevention, recognition, evaluation, and management of orthopedic injuries and general medical conditions. Course fee required.

A T 175 BASIC ATHLETIC TRAINING SKILLS (3) This course provides students with the skills and knowledge needed to maximize the benefit of athletic training clinical education. Some of the skills included in this course are taping, wrapping, protective padding fabrication, protective equipment fitting and modality application. Course fee required.

A T 200 CLINICAL EDUCATION I (2) *Corequisites or Prerequisites: A T 100, 225 and permission of instructor.* This course is designed to allow students to become familiar with certified athletic trainers (ATs) and healthcare professionals with whom athletic trainers interact. Students will complete assigned clinical hours of experience through one or more rotations. This experience will help students understand each professional's role in caring for patients. Students will become proficient in injury prevention and prophylactic skills as part of this course.

A T 225 SAFETY AND THE MANAGEMENT OF HEALTH EMERGENCIES (2) This course surveys principles and management, accident and injury prevention, professional liability, and appropriate techniques for managing emergencies. Course fee required.

A T 240 **CLINICAL EDUCATION II (2)** *Corequisite or prerequisite: A T 200 and permission of instructor.* Students will gain experience with athletic trainers and other healthcare professionals in the clinical setting. Students will complete assigned clinical hours of experience through one or more rotations. The purpose of the rotations is to give students an opportunity to gain clinical experience observing, treating both male and female patients, and become proficient in acute care athletic training skills.

A T 325 **EXAMINATION TECHNIQUES I & LAB (4)** *Prerequisites or corequisites: BIOL 222/222L, 223/223L.* Students will learn appropriate injury examination techniques for the lower extremity. The anatomy of the lower extremities will be reviewed, mechanisms of injury analyzed, basic concepts in examination discussed, and skills necessary to accurately examine musculoskeletal injuries of the lower extremities practiced. Documentation in athletic training will be discussed and practiced. Extensive time will be spent practicing skills in various laboratory activities.

A T 326 **EXAMINATION TECHNIQUES II & LAB (4)** *Prerequisite: A T 325.* Students will learn appropriate injury assessment techniques for the upper extremity, head, neck, and abdomen. The anatomy of the upper extremities will be reviewed, mechanisms of injury analyzed, basic concepts in examination discussed, and skills necessary to examine musculoskeletal injuries of the upper extremities accurately practiced. Documentation in athletic training will be discussed and practiced. Extensive time will be spent practicing skills in various laboratory activities.

A T 340 **CLINICAL EDUCATION III (2)** *Prerequisite: A T 240.* Students will gain experience with preceptors in an athletic training setting and complete assigned clinical hours of experience through one or more rotations. The purpose of the rotation(s) is to give students an opportunity to gain experience practicing skills on patients. Students are also given an opportunity to become proficient in athletic training skills related to the assessment of injuries.

A T 342 **CLINICAL EDUCATION IV(2)** *Prerequisite: A T 340.* Students will gain experience with preceptors in an athletic training setting and complete assigned clinical hours of experience through one or more rotations, the purpose of which is to give students an opportunity to practice athletic training skills on patients. This course provides the students with the opportunity to become proficient in athletic training skills related to therapeutic interventions.

A T 344 **GENERAL MEDICAL CLINICAL ROTATION IN ATHLETIC TRAINING (1)** *Prerequisite: AT 340. Corequisite or prerequisite: EXPH 330.* Students will gain experience through observation and interaction with medical professionals that assess and treat general medical illnesses and injuries. Students will observe physicians, nurse practitioners, and/or physician assistants who work in primary care settings.

A T 350W **THERAPEUTIC INTERVENTIONS I [Writing Enriched] (3)** *Prerequisites: AT 100, BIOL 222/222L, 223/223L, and ENGL 111W-112W or ENGL 223W.* Therapeutic exercise and how it affects tissue healing and its role in the treatment of injuries will be examined. Basic components, design, and implementation of rehabilitation programs will be discussed and practiced. Therapeutic modalities will be introduced.

A T 351 **A T 351** **THERAPEUTIC INTERVENTIONS II (3)** *Prerequisites: A T 100, BIOL 222/222L, 223/223L.* This course will review therapeutic exercise and it will provide an advanced study of therapeutic modalities in the field of athletic training. The indications, contraindications, and effects of physical agents such as ice, heat, electrical stimulation, and ultrasound will be studied. Students will have an opportunity to practice skills necessary to use modalities effectively.

A T 397 **INDEPENDENT STUDY IN ATHLETIC TRAINING (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

A T 398 **SPECIAL TOPICS IN ATHLETIC TRAINING (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

A T 415 **INTERNSHIP IN ATHLETIC TRAINING (1-12)** *Prerequisites: AT 342 and approval of faculty sponsor.* This course offers a professional internship within an appropriate athletic training/healthcare setting. The student and the faculty sponsor will agree on the location and the responsibilities of the intern.

A T 425 **ADMINISTRATION OF ATHLETIC TRAINING PROGRAMS (3)** *Prerequisite: A T 342.* This course is designed to cover a wide range of administrative topics in the health care professions. At the conclusion of the course students will be familiar with the multitude of management and administrative techniques that are required by the athletic trainer. The student will have a plan for addressing administrative issues at the completion of this course.

A T 440 **CLINICAL EDUCATION V (2)** *Prerequisite: A T 342.* Students will gain experience in a clinical setting and complete assigned clinical hours of experience through a single rotation. The purpose of this course is to give students an experience which will help prepare them for the professional responsibilities they will assume as graduate assistants or as employed certified athletic trainers.

A T 450W **EVIDENCE BASED RESEARCH METHODS IN ATHLETIC TRAINING [Writing Enriched] (3)** *Prerequisites: A T 342, and ENGL 111W-112W or ENGL 223W.* This capstone course is designed to give students a background in the research process and in evidence-based medicine. Students will be expected to integrate knowledge and skills obtained from prior courses to develop a research question. The students will then conduct research which includes an IRB proposal, data collection, data analysis, and writing a research manuscript.

BIOLOGY COURSES (BIOL)

BIOL 101 **BIOLOGICAL INQUIRY (4)** In this course, students will explore a topic in biology as impetus to learning about scientific discovery. The primary emphases in this course include scientific ways of knowing, causal and correlational relationships, reasoning, and interpreting data from either personal or published data.

BIOL 113 **EVOLUTION, ECOLOGY, AND ORGANISMS (4)** Three hours of lecture and three hours of laboratory. The emphasis of this course is on the fundamentals of the relationships among organisms and their environment. This course serves primarily as the first part of a two-semester introduction for those students planning to major in biology or biomedical sciences.

BIOL 114 **CELLS: GENETIC AND MOLECULAR PERSPECTIVES (4)** Three hours of lecture and three hours of laboratory. Understanding of organismal structure and function is based on knowledge of the underlying cellular and molecular structure and function. These in turn are controlled by the genetic mechanisms that determine cellular structure and behavior. The relationships among cells, molecules, and their genetic controls are the focus of this course. This course serves primarily as the second part of a two semester introduction for those students planning to major in biology or biomedical sciences.

BIOL 205 **PLANT BIOLOGY (4)** *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. This course examines the evolution, structure, function, physiology, basic ecology, and life histories of organisms traditionally studied in the context of botany, including photosynthetic bacteria, protists, plants, and fungi. Labs complement lecture content, providing opportunities to gain skills in microscopy, morphology, ecology, and classification.

BIOL 210 **ANIMAL BIOLOGY (4)** *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. Introduction to the structure, function, and ecology of the major groups of protozoans and animals within the context of a modern phylogenetic perspective. Special emphasis is placed on the modification of structure and function by natural selection within different animal groups as adaptations to specific physiological and ecological constraints.

BIOL 214 **HUMAN ANATOMY (3)** Three hours lecture. This course is a study of the structures of the body with emphasis on the organ systems involved in movement. Introductory material focuses on terminology, examining the hierarchical organization of the body and study of the four major tissues of the body. Subsequently, the interrelationships among the bones, joints, muscles, nerves, and blood supply of each body region are examined using a regional approach. This course is designed to meet the outcomes expected for pursuing upper-level courses in the HMSR majors.

BIOL 214L HUMAN ANATOMY LABORATORY (1) *Corequisite or prerequisite: BIOL 214.* Three hours laboratory. The primary goal of the laboratory course is to provide a hands-on opportunity for students to apply the terminology and concepts covered during lecture. Accordingly, physical models, dissection, computer software, and Internet resources are used as part of a problem-solving pedagogy in which collaborative learning is emphasized.

BIOL 215 HUMAN PHYSIOLOGY (3) Three hours lecture. This course is a study of the function, integration, and interaction of various organ systems in the body. Introductory material focuses on an overview of organ systems, the concepts of homeostasis and negative feedback, and fundamental chemical, physical, and cellular concepts. Subsequently, the physiology of the systems involved in movement and exercise, particularly the nervous, endocrine, muscular, cardiovascular, pulmonary, digestive, and urinary systems are emphasized. This course is designed to meet the outcomes expected for pursuing upper-level HMSR major courses.

BIOL 215L HUMAN PHYSIOLOGY LABORATORY (1) *Corequisite or prerequisite: BIOL 215.* Three hours laboratory. The primary goal of the laboratory course is to provide a hands-on opportunity for students to apply the principles and concepts covered during lecture. Accordingly, physiological experiments, physical models, computer software, and Internet resources are used as part of inquiry-based, problem-solving pedagogies in which collaborative learning is emphasized.

BIOL 220 CELLULAR DIVERSITY (4) *Prerequisites: C- or better grade in BIOL 113-114, CHEM 111.* Three hours lecture and three hours lab. This course introduces the student to the connectivity between all cellular forms of life, with its primary focus being the kingdoms of fungi and protists and their evolution from and parallel to prokaryotic organisms (bacteria and archaea). Specific topics include systematics and evolution, endosymbiosis, evolution from single to multi-celled life, and molecular aspects of communication and cell structure. Students will integrate a cellular view into their understanding of biology. Laboratories focus on microscopy, histology, and basic culture, molecular and biochemical techniques for cells.

BIOL 222 HUMAN ANATOMY AND PHYSIOLOGY I (3) Three hours lecture. This course explores the fundamental structure and function of the human body, beginning at the cellular and molecular level of organization and progressing through integumentary, skeletal, nervous, and endocrine systems.

BIOL 222L HUMAN ANATOMY AND PHYSIOLOGY LABORATORY I (1) *Corequisite or prerequisite: BIOL 222.* Three-hour laboratory to accompany BIOL 222.

BIOL 223 HUMAN ANATOMY AND PHYSIOLOGY II (3) *Prerequisite: BIOL 222.* Three hours lecture. This course explores fundamental structure and function of muscular, cardiovascular, pulmonary, digestive, renal, and reproductive systems in human beings. Emphasis is placed on interrelatedness of organ systems and applications to allied health professions.

BIOL 223L HUMAN ANATOMY AND PHYSIOLOGY LABORATORY II (1) *Corequisite or prerequisite: BIOL 223.* Three-hour laboratory to accompany BIOL 223.

BIOL 233 TROPICAL BIOLOGY (1-3) *Prerequisites: BIOL 113-114, ENVS 101/101L-102/102L or equivalent.* This course examines extremely diverse ecosystems of the tropical forests which provide excellent opportunities to study several basic concepts of biological and environmental science. Students also study the unique fauna and flora of the tropical forest and learn how and why this ecosystem is threatened.

BIOL 238 INTRODUCTION TO RESEARCH (1-3) *Prerequisite: Consent of supervising instructor.* This course provides the beginning student the opportunity to conduct lab, field, or library research under the supervision of a faculty member. Credit is dependent upon the scope of the work.

BIOL 305 PLANT ECOLOGY (4) *Prerequisites: BIOL 205, MATH 103 and 222.* Three hours lecture and three hours laboratory. This course focuses on ecological constraints that plants experience by virtue of their predominantly sessile lifestyle. Populations dynamics, competition, plant-animal interactions, community structure, function, succession, and the influence of abiotic factors will be considered. Lab exercises emphasize problem-solving approaches to a series of field investigations.

BIOL 309 ENVIRONMENTAL ENTOMOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L; BIOL 210 recommended.* Three hours lecture and three hours laboratory. An introduction to insect structure, function, adaptation, and ecology, with an emphasis on insect interactions with their natural environments and with humans. Students will be trained in insect, sampling, curation, and identification during labs, lectures, and field trips. The utility of insects in assessing the health of terrestrial and aquatic ecosystems (biomonitoring) will be a key component of the course.

BIOL 310 ORNITHOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L; BIOL 210 recommended.* Three hours lecture and three hours laboratory. Introduction to avian biology with an emphasis on the evolution, classification, physiology, behavior, ecology, natural history, and conservation of birds. Laboratory focuses on anatomical adaptations and biodiversity, as well as on field identification of birds of the Mid-Atlantic States with field trips to local and regional areas.

BIOL 313 MARINE BIOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. This introduction to the marine environment emphasizes the influence of oceanographic, evolutionary, and ecological principles on marine organisms and ecosystems. Discussion of the diversity of marine life focuses on the constraints of different marine ecosystems. Students gain experience in field identification of marine organisms during the laboratory. The laboratory is conducted at selected sites on the ocean and in the estuary. A small additional cost will be incurred for a field trip.

BIOL 314 BIOLOGY OF WEST INDIAN CORAL REEF ORGANISMS (3) (Winter Term) *Prerequisites: BIOL 113 or ENVS 101/101L.* This course covers the organisms inhabiting the coral reefs of the West Indies and will be taught on San Salvador Island in the Bahamas. Field work is intensive, and skin diving and optional scuba techniques are employed. Limited collections are made, and a paper on a topic of special interest is required. An additional fee will be charged to cover expenses.

BIOL 321 GENERAL ECOLOGY (4) *Prerequisites: BIOL 113-114, ENVS 101/101L-102/102L, and MATH 103 or 222.* Three hours lecture and three hours laboratory. This course is a survey of general ecological principles from the evolutionary perspective, incorporating multiple levels of analysis (e.g. population, community, etc.). Primary emphasis is placed on framing ecological theory in perspective with field models of ecological principles from historical and current research.

BIOL 323 GENETICS (4) *Prerequisites: BIOL 113-114, ENVS 101/101L-102/102L, or CHEM 111-112.* Three hours lecture and three hours laboratory. Basic concepts and principles of prokaryotic and eukaryotic genetics are discussed, including Mendelian inheritance, polygenic inheritance, linkage and mapping chromosome aberrations, population genetics, DNA structure and replication, gene expression, mutation, gene regulation, recombinant DNA technology, and the molecular basis of disease. Lab exercises utilize bacteria, plants, and animals as model systems.

BIOL 332 VERTEBRATE ANATOMY (4) *Prerequisites: BIOL 113-114; BIOL 210 recommended.* Three hours lecture and three hours laboratory. This course provides a comparative study of the development, structure, and relationships of different organ systems in various vertebrate groups. Recommended for pre-medical, pre-dental, and medical technology students.

BIOL 333 VERTEBRATE PHYSIOLOGY (4) *Prerequisites: BIOL 113-114, CHEM 111-112; BIOL 210 recommended.* Three hours lecture and three hours laboratory. This course is a study of the cellular and molecular bases of organ system function in vertebrates, primarily humans. Emphasis is placed on nervous and endocrine control systems and the coordination of body functions. Clinical examples are frequently used.

BIOL 345 ANIMAL BEHAVIOR (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L, and MATH 103 or 222.* Three hours lecture and three hours laboratory. This course includes a review of concepts of animal behavior and the methods employed to study behavior including an analysis of mechanistic and adaptive aspects of behavior in a variety of animal taxa. Emphasis is placed on analysis of current primary literature and development of critical tests of behavior.

BIOL 356 NEUROBIOLOGY (4) *Prerequisites: BIOL 113-114; BIOL 220 recommended.* Three hours lecture and three hours laboratory. This course serves primarily as a companion course to Physiological Psychology (PSYC 355) but can also serve as a stand-alone course for anyone interested in the

biology of the human nervous system. Introductory material focuses on an overview of the organization of the nervous system and on cellular aspects of neural function. Subsequent emphasis is on reflexes, sensory function, motor function, and sensorimotor integration.

BIOL 360 MOLECULAR CELL BIOLOGY (4) *Prerequisites: BIOL 113-114; CHEM 111-112, 221; BIOL 220 recommended.* Three hours lecture and three hours laboratory. This course introduces the student to the complex events occurring in the nucleus of the cell, resulting in cell division and the continuation of species. It also examines the molecular processes of cell differentiation, cell signaling, cancer, and events that cause DNA mutations.

BIOL 397 INDEPENDENT STUDY IN BIOLOGY (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

BIOL 398 SPECIAL TOPICS IN BIOLOGY (1-4) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

BIOL 399 INTERNSHIP IN BIOLOGY (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This course is offered to qualified students allowing them to gain personal and practical experience in various areas of the biological sciences. Internships include but are not limited to research projects with professionals, laboratory analysis and management, conservation management, statewide or regional conservation, fisheries, wildlife or botanical projects, and a variety of other possible on-site experiences. (See "Internships.")

BIOL 405 EVOLUTION (3) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L; CHEM 111-112; BIOL 323 recommended.* Evolutionary biology addresses fundamental questions whose answers influence all other levels of biological understanding, from molecular and cellular biology to ecological processes. This course will provide a survey of the basic concepts of evolutionary biology, address empirical methods in evolutionary biology, and examine the importance of an evolutionary understanding across other sub-disciplines.

BIOL 424 MICROBIOLOGY (4) *Prerequisites: BIOL 113-114, CHEM 111-112 with a C- or better in all; BIOL 220 recommended.* Three hours lecture and three hours laboratory. The ecological, genetic and molecular basis of the microscopic world is studied with an emphasis on the prokaryotes; the bacteria and archaea. Human microbial disease investigation includes virology, mycology (fungi), and bacterial infections as well as drug treatments, and case studies of infection and epidemiology. Labs concentrate on classic microbiological techniques, microscopy, biochemistry and genetics of prokaryotic organisms.

BIOL 428 INDIVIDUAL RESEARCH IN BIOLOGY (1-6) *Prerequisites: Junior or senior standing; consent of supervising instructor.* This independent opportunity to conduct a field, laboratory, or literary study project culminates in a formal paper and/or presentation as directed by the supervising instructor. Credit is dependent on the nature of the work but may not exceed three credit hours per semester.

BIOL 480 CASE STUDIES IN BIOLOGY (3) *Prerequisite: Senior standing.* Three hours lecture. This course is intended as a capstone course and is designed to allow students to study specific topics in biology in depth. It utilizes case studies in biology and draws upon previous coursework in the biology major. Emphasis is placed on critical thinking and problem solving skills.

BIOL 490 BIOLOGY SEMINAR (1) *Prerequisite: Senior standing.* This seminar is intended as a capstone course and provides an opportunity for students to study a range of biological questions presented by outside speakers. Additionally, students' communication skills are assessed through oral presentations on internships or individual research projects, as well as other topics.

BIOMEDICAL SCIENCE COURSES (BIOM)

BIOM 238 INTRODUCTION TO RESEARCH (1-3) *Prerequisite: Consent of supervising instructor.* This course provides the beginning student the opportunity to conduct lab, field, or library research under the supervision of a faculty mentor. Credit is dependent on the scope of the work.

BIOM 301W BIOMEDICAL SCIENCE SEMINAR [Writing Enriched] (1) *Prerequisite: Junior or senior standing, and ENGL 111W-112W or ENGL 223W.* One hour lecture. Students meet for presentations (prepared by the students) on various aspects of careers and trends in the health-related professions. Topics may include ethics in medicine, current research problems in the health fields, health insurance options, job outlook predictions for various medical specialties, average QPA and MCAT scores for last year's entering class, demonstrations of interesting websites, and standardized test and interview preparation. Experimental design is also addressed. The grade is based on attendance, presentations, several short essays, and a final paper on which the student can base the essay required for professional school application.

BIOM 312 FORENSIC SCIENCE (4) *Prerequisites: Satisfactory completion of the following: BIOL 114, CHEM 112.* This course introduces the student to the forensic science profession. Course topics include crime scene investigation, techniques used for the identification and analysis of body fluids, hair, glass, fibers, latent fingerprints, firearms, and narcotics. Laboratory experiments emphasize the collection/preservation of evidence, serology, wet chemical techniques, microscopy, and the use of spectroscopic instrumentation.

BIOM 397 INDEPENDENT STUDY IN BIOMEDICAL SCIENCE (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

BIOM 398 SPECIAL TOPICS IN BIOMEDICAL SCIENCE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

BIOM 399 INTERNSHIP IN A HEALTH PROFESSION (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA, approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This internship provides practical experience in the health professions under supervision of a qualified professional. A final written report is required of the student intern. (See "Internships.")

BIOM 420 CANCER BIOLOGY (3) *Prerequisites: BIOL 113-114; recommended BIOL 360.* Three hours lecture. This course will address current issues in cancer: the genesis and progression of a tumor, types of tumors, mechanisms of tumorigenicity and effective treatment strategies.

BIOM 428 INDIVIDUAL RESEARCH IN BIOMEDICAL SCIENCE (1-6) *Prerequisites: Junior or senior standing; consent of supervising instructor.* This independent opportunity to conduct a field, laboratory, or literary study project culminates in a formal paper and/or presentation as directed by the supervising instructor. Credit is dependent on the nature of the work but may not exceed three credit hours per semester.

BIOM 454 IMMUNOLOGY (4) *Prerequisites: BIOL 113-114, and CHEM 111.* Three hours lecture and three hours laboratory. A study of the structure and function of the mammalian immune systems, principally focused on mouse and human immunology. This course builds basic knowledge about the function of the cellular components of immunity and examines an integrated view of the biochemical and genetic aspects that contribute to immune action in infectious disease and immune disorders.

BUSINESS ADMINISTRATION COURSES (BUAD)

BUAD 100 PERSPECTIVES ON BUSINESS (3) This course presents basic concepts and problems found in business. Topics such as marketing, organizational forms, management, production, finance,

and economics are discussed. The business environment is also emphasized, including the global, social, ethical, political, legal, and regulatory business environment. Leading business executives bring the “real world” to the classroom, and a technological component emphasizing computer presentation software is presented. Team-building skills are strongly emphasized and developed.

BUAD 222 ETHICAL DILEMMAS IN BUSINESS AND LEADERSHIP (3) This course examines moral and ethical dilemmas related to business and leadership, including ethical decision making and core decision making skills in the business environment. Close attention will be paid to contemporary ethical dilemmas faced by business, political and world leaders.

BUAD 241 BUSINESS STATISTICS (3) This course focuses on the development of the theory of inferential statistics with the aim of generating an understanding of the selection, application, and interpretation of statistical methodology necessary for making informed management decisions. Topics include sets and probability, probability distributions, expected value, statistical measures, sampling distributions, estimation, and hypothesis testing. Note: business and economics majors will not meet the statistics requirement by substituting MATH 222 for BUAD 241.

BUAD 243 DATA MINING (3) This hands-on course focuses on the application of current data mining techniques in business and economics. Supervised and unsupervised learning techniques will be discussed, including association rules, decision trees, and classification. These are applicable in marketing (customer profiling), economics (fraud detection), accounting (auditing), information systems (security), and a variety of other contexts.

BUAD 265 LEADERSHIP AND THE CLASSICS (3) This course studies the concepts and techniques of effective leadership. The classics are used as resources to gain insightful knowledge about ways in which concepts and techniques of leadership work in the business environment.

BUAD 322 LEGAL ENVIRONMENT OF BUSINESS (3) This course examines legal principles and ethics, the role of law in society, and the legal environment in which business operates.

BUAD 352 PRINCIPLES OF INTERNATIONAL BUSINESS (3) *Prerequisites: ACCT 201, ECON 201-202, and MGMT 260.* An introduction to the study of the theory and practice of the field of international business that focuses on managerial, operational, strategic, and environmental factors. The roles of intercultural communications and cross-cultural awareness in successful global strategies are emphasized. Analysis of the procedures and processes of international business and alternative modes of entry are also stressed.

BUAD 377 STUDY ABROAD (3) *Prerequisite: Permission of instructor.* This course is a study-course experience, normally lasting one week, that takes students outside the United States. The purpose is to deepen students’ understanding of other cultures as they learn how the requirements for operating a successful enterprise differ from those in the U.S. This is accomplished through a series of papers completed prior to and following the study-tour experience.

BUAD 397 INDEPENDENT STUDY IN BUSINESS ADMINISTRATION (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

BUAD 398 SPECIAL TOPICS IN BUSINESS ADMINISTRATION (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

BUAD 399 INTERNSHIP IN BUSINESS (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* Internships are offered in cooperation with a faculty sponsor responsible for academic quality who assigns the final grade. Student interns may or may not be paid for their work. (See “Internships.”)

BUAD 406 INTRODUCTION TO ENTREPRENEURSHIP (3) *Prerequisites: ACCT 201-202.*

This course emphasizes aggressive strategic planning of entrepreneurial projects. The course integrates professional management and entrepreneurial values, concepts, and tools. Students are coached through development of strategic plans for their projects.

BUAD 430 PRACTICUM IN BUSINESS (3) *Prerequisite: Senior standing in a School of Business And Economics major.* This course provides the student with firsthand experience in problem solving and decision making in a business environment. Students will work as part of a team on an actual business case culminating in a thorough report recommending solutions for the firm's problems.

BUAD 441 INTEGRATED APPLICATION OF BUSINESS PRINCIPLES (3) *Prerequisites: ECON 201-202, FIN 317, MGMT 244, 260, and MKTG 209.* This course focuses on integrating business theory and practice. Students apply core business concepts (accounting, economics, finance, law, management, marketing, and operations management) to develop a business plan. Students also explore topics associated with the strategic management and control of small- to medium-size business enterprises.

CHEMISTRY COURSES (CHEM)

CHEM 111 FUNDAMENTALS OF CHEMISTRY I (4) *Prerequisite or corequisite: MATH 103.* Three hours lecture and three hours laboratory. This course covers fundamental principles and concepts necessary for a successful understanding of major aspects of chemistry. Major topics include atomic structure, periodicity, bonding, and intermolecular forces.

CHEM 112 FUNDAMENTALS OF CHEMISTRY II (4) *Prerequisites or corequisites: CHEM 111, MATH 102 or 103.* Three hours lecture and three hours laboratory. This course is a continuation of CHEM 111 and continues to cover fundamental principles and concepts necessary for a successful understanding of major aspects of chemistry. Major topics for this course include chemical reactions, thermodynamics, kinetics, equilibrium, acid/base chemistry, and electrochemistry.

CHEM 127 THE CHEMISTRY OF LIFE (4) This is an introductory course in general, organic, and biological chemistry recommended for, but not restricted to, those who are preparing for nursing. Major concepts include atomic structure, chemical bonding, acid/base chemistry, carbon-containing compounds, and biomolecules (carbohydrates, proteins, and lipids). The laboratory is designed to investigate the role chemistry plays in biological life processes.

CHEM 206 ENVIRONMENTAL CHEMISTRY (4) *Prerequisite: Satisfactory completion of CHEM 111.* Three hours lecture and three hours laboratory. This course can substitute for CHEM 112 for environmental science majors only. This course focuses on the application of fundamental chemical principles to environmental problems. Laboratory techniques and field collection methods used in modern environmental analysis are introduced to assess aspects of water quality, atmospheric chemical reactions, and soil chemistry.

CHEM 221 ORGANIC CHEMISTRY I (4) *Prerequisites: A grade of C- or better in both CHEM 111 and 112.* Three hours of lecture and three hours of lab. The fundamentals of organic chemistry are presented with an emphasis on the nomenclature, stereochemistry and reaction mechanisms that functional groups undergo. Specifically, the reactions of alkyl halides, alkenes and alkynes are reviewed. Laboratory techniques used to synthesize, purify, and analyze organic compounds are investigated. Spectroscopic and instrumental methods of analysis are also examined with a focus on IR spectroscopy.

CHEM 222 ORGANIC CHEMISTRY II (4) *Prerequisite: CHEM 221 with a grade of C- or better.* Three hours of lecture and three hours of laboratory. The fundamentals of organic chemistry are further explored in this course. The nomenclature, stereochemistry and reaction mechanisms of specific functional groups are expanded upon. Specifically, the reactions of aromatic compounds and carbonyl chemistry are explored. This course emphasizes the multistep synthesis of small organic compounds and an exploration into retrosynthetic analysis. More advanced organic laboratory techniques used to synthesize, purify, and analyze organic compounds are investigated. Spectroscopic and instrumental methods of analysis are examined with emphasis on H1 and C13 NMR and MS.

CHEM 238 INTRODUCTION TO RESEARCH (1-3) *Prerequisite: Consent of supervising instructor.* This course provides the beginning student the opportunity to conduct lab, field, or library research

under the supervision of a faculty member. Credit is dependent upon the scope of the work.

CHEM 241W RESEARCH METHODOLOGY IN CHEMISTRY [Writing Enriched] (2) *Prerequisites:* CHEM 111-112, and ENGL 111W-112W or ENGL 223W. One hour lecture and three hours laboratory. This course introduces the student to chemistry research protocols including experimental design, conducting a literature review, and introductory instrumentation. Students will participate in a research project designed by the instructor(s) of the course.

CHEM 320 INTRODUCTORY BIOCHEMISTRY (4) *Prerequisites:* CHEM 221-222. Three hours lecture and three hours laboratory. This course is a study of the structure and function of biological macromolecules and the relation of chemistry to metabolic processes. Biochemistry is especially recommended for biology majors and pre-health science students.

CHEM 352 ADVANCED ORGANIC CHEMISTRY (3) *Prerequisite:* CHEM 222. Three hours lecture. This course explores advanced topics in organic chemical bonding and reactivity, including molecular orbital theory, stereochemistry, stereoelectronic effects, molecular rearrangements, structure-reactivity relationships, pericyclic reactions, additions, and condensations. These concepts are applied in the study of organic synthesis and determination of mechanisms. Modern spectroscopic methods, including mass spectrometry, infrared spectroscopy, and one- and two-dimensional nuclear magnetic resonance spectroscopy will be emphasized. Structure determination using a combination of methods will also be emphasized.

CHEM 359 ANALYTICAL CHEMISTRY I (4) *Prerequisite:* CHEM 112. Three hours lecture and three hours laboratory. This course focuses on the theory and practice of modern analytical chemistry including volumetric and electrochemical methods, sample collection, preparation, and sample validation. Laboratory work is designed to complement this study.

CHEM 360 ANALYTICAL CHEMISTRY II (4) *Prerequisite:* CHEM 359. Three hours lecture and three hours laboratory. This course examines theoretical and experimental aspects of instrumental analysis with an emphasis on modern chromatographic, spectroscopic, and electrochemical methods.

CHEM 397 INDEPENDENT STUDY IN CHEMISTRY (1-3) *Prerequisites:* Approval of faculty sponsor and school dean; junior or senior standing. This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

CHEM 398 SPECIAL TOPICS IN CHEMISTRY (1-3) [credit depends on topic] *Prerequisite:* A background of work in the discipline. This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

CHEM 399 INTERNSHIP IN CHEMISTRY (1-12) *Prerequisites:* Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration. This internship is offered to provide practical experience in applications of chemical knowledge while under the supervision of a qualified professional. Internship opportunities are limited. Only three hours of this course may be applied toward the chemistry major. (See "Internships.")

CHEM 421 PHYSICAL CHEMISTRY I (4) *Prerequisites:* CHEM 241, MATH 211, and PHYS 141-142 or 161-162. Three hours lecture and three hours laboratory. This course focuses on theoretical and experimental principles of chemistry that are used to explain and interpret observations made on states of matter. This course focuses on an in-depth understanding of equilibrium thermodynamics and chemical kinetics. Key topics include internal energy, work, enthalpy, entropy, Helmholtz free energy, Gibb's free energy, chemical potential as they relate to the solids, liquids, gases, and mixtures. Students keep a journal-style laboratory notebook and submit reports consistent with American Chemical Society style guidelines.

CHEM 422 PHYSICAL CHEMISTRY II (4) *Prerequisite:* CHEM 421. Three hours lecture and three hours laboratory. This course focuses on the theoretical and experimental principles of chemistry that are used to explain and interpret chemical data. This course will focus on chemical quantum mechanics with a particular emphasis on the Schrodinger equation and the postulates of quantum mechanics. Quantum mechanical models will be developed for the particle-in-a-box, harmonic oscillator, rigid rotor, and hydrogen

atom. These models will be studied as they relate to spectroscopic properties of atoms and molecules. In addition, computational methods in chemistry will be investigated. Students keep a journal-style laboratory notebook and submit reports consistent with American Chemical Society style guidelines.

CHEM 428 INDIVIDUAL RESEARCH IN CHEMISTRY (1-6) *Prerequisites: Junior or senior standing; consent of supervising instructor.* This independent opportunity to conduct a field, laboratory, or literary study project culminates in a formal paper and/or presentation as directed by the supervising instructor. Credit is dependent on the nature of the work but may not exceed three credit hours per semester.

CHEM 441 CHEMISTRY SEMINAR (1) *Prerequisite: Senior standing.* Two hours lecture. This capstone course focuses on advanced scientific written and oral communication skills, scientific philosophy, research methodology, and scientific reasoning.

COMMUNICATION COURSES (COMM)

COMM 101 ARGUMENTATION AND PRACTICAL REASONING (3) This course in oral argumentation emphasizes student ability to support and refute claims, master linear organization, and deliver arguments confidently and effectively. In creating and delivering arguments across topics and disciplines, students are introduced to such basics of critical thinking as inductive and deductive reasoning, recognition of fallacies, and argument analysis.

COMM 104 INTRODUCTION TO MEDIA TECHNOLOGY (3) This course will introduce basic technologies that are vital to success in communication courses requiring video and multi-media production and will serve as a foundation for the advanced study of media production techniques. Students will receive instruction in the aesthetics and hands-on application of various technologies related to the communication field including video camera operation, digital video editing, and media presentation software.

COMM 112 INTERPERSONAL COMMUNICATION (3) This course focuses on traditional and contemporary theory and research in interpersonal communication in formal and informal settings. Practical application with attention to communication concepts and behaviors such as self-concept, perception, verbal and non-verbal codes, relational development, maintenance, and termination are included.

COMM 114 SMALL GROUP COMMUNICATION (3) This course focuses on theory and research relevant to the communication process in formal and informal small group settings. It provides practical application through participation in structured and unstructured group simulations, and effective group participation, including group influence, leadership, role behavior, attraction, cohesiveness, interaction networks, decision making, problem solving, and discussion agenda systems.

COMM 171 MEDIA AND CULTURE (3) Mass media play a prominent role in our lives, conveying cultural meaning that impacts us on many levels, from the global to everyday. This course examines the dynamic relationship between mass media and culture. Students will also explore the history, structure, and regulation of mass media industries.

COMM 180 STAGE AND STUDIO TELEVISION (3) This course introduces the aesthetics, technology, and practices of working in a television studio environment. Critical analysis of directing techniques and directorial problem solving are included. Students will engage in a series of training exercises and larger projects that develop basic skills in all the major duties associated with conducting a studio production. Additionally, they will be introduced to standard audio studio practices.

COMM 201 MEDIA WRITING I (3) A study of the principles and practices of writing for print, broadcast, and online media. The emphasis is on acquiring skills in reporting, writing, and the presentation of information.

COMM 202 MEDIA WRITING II (3) *Prerequisite: COMM 104 and 201.* While writing for publication or broadcast in campus media, students will gain skills in news style and form. Students expand on the principles of media writing introduced in COMM 201 through classroom exercises, lectures, and critiques of student writing.

COMM 206 ADVERTISING AND PRODUCTION DESIGN (3) *Prerequisites: COMM 104 and 201.* This course focuses student activity on the development of planning, writing, and production techniques for promotional media including commercials and public service announcements for radio and television, as well as other forms of promotional electronic media. Students will analyze professional examples of promotional media, formulate scripts based on desired client messages, and then design and execute productions of their scripts.

COMM 228 PUBLIC PRESENTATION (3) *Prerequisite: COMM 101, 112, or 114.* This course moves beyond the basics of argument and persuasion to develop theoretical and strategic understanding and skill in the various forms of public address. Students may engage in a combination of any of the following: oral interpretation, persuasion, informative speaking (with Power Point), broadcast presentation, ceremonial address, and business presentation.

COMM 229 INTRODUCTION TO FILM (3) For over a century, film has played an important role in both American and global popular culture. In this course, that role is examined through screenings of films and through the study of film aesthetics, theories, and genres.

COMM 230 PERSUASION (3) *Prerequisite: COMM 101, 112, or 114.* This course examines theory and practice in understanding persuasion as a means of advocacy and social influence. Persuasion theory will be applied to the areas of politics, advertising and public relations, media, and interpersonal and other communication settings.

COMM 232 DEBATE AND FREEDOM OF SPEECH (3) *Prerequisite: COMM 101.* This performance course examines the substantive structure, strategic bases and freedom of speech issues associated with public forms of debate. Students examine political, constitutional and collegiate forms of debate. Students participate in formal debates.

COMM 251 INTERCULTURAL COMMUNICATION (3) *Prerequisite: COMM 101, 112, or 114.* Students develop the knowledge and intercultural thinking approach necessary for today's global society. Emphasis is on conceptual tools needed to understand culture, communication theory, how culture influences communication, and the process of communication between people from different cultures, including the rules and norms relating to verbal and nonverbal language. Values and communication systems of the U.S. are compared and contrasted with those of other countries and world religions. Diversity and identity within the U.S. is explored.

COMM 260 INTRODUCTION TO PUBLIC RELATIONS (3) *Prerequisite: COMM 201.* This course focuses on principles and practice in the major forms of writing used in public relations: news releases; broadcast publicity and public service announcements; planning and publicity for special events; feature stories; in-house publications; and institutional advertising. Learning activities include case studies of public relations problems and projects for College and community groups.

COMM 275 VISUAL RHETORIC (3) *Prerequisite: COMM 101, 112, or 114.* Visual Rhetoric is the study of visual representation, the rhetorical nature of the visual, and the theories that explain how visual images construct meaning. This course emphasizes making the student an informed reader/consumer of visual images and their symbolic content. Students will use critical methods to analyze visual images as they occur in photos, cartoons, memorials, television (particularly news), film (particularly documentary), and the internet.

COMM 301 RHETORICAL CRITICISM (3) *Prerequisite: COMM 230.* This course analyzes various forms of public address including speeches, advertising, political communication, business communication, and ceremonial address according to classical and contemporary methodologies. Emphasis is placed on developing analytical and critical thinking skills.

COMM 302 STRATEGIC PUBLIC RELATIONS WRITING (3) *Prerequisite: COMM 260.* This course engages a specialized writing curriculum developed for the contemporary public relations student. Assignments work toward cultivating relationships among a variety of audiences using traditional, organizational and social/digital media. Students will build upon theoretical public relations knowledge and further develop writing skills for clarity of message dissemination and evaluation.

COMM 303 RESEARCH METHODS IN COMMUNICATION (3) *Prerequisites: COMM 112, 171.* This introduction to communication research methodologies emphasizes the areas of documentation and writing as well as information retrieval, organization, and management.

COMM 304 DIGITAL EDITING AND MOTION GRAPHICS (3) *Prerequisite: COMM 104.* This course introduces students to the technology of digital video manipulation and motion graphics. While learning basic image layering and control, students will engage in critical analysis of professional work.

COMM 316 AMERICAN PUBLIC ADDRESS (3) *Prerequisite: COMM 101, 112, or 114.* This course introduces the rich diversity of American oratory, past and present, emphasizing the historical and critical study of principal speakers and speeches and of their relationship to American political, social, and intellectual life.

COMM 322 ADVANCED REPORTING AND WRITING (3) *Prerequisite: COMM 202.* This course provides rigorous in-depth instruction and critiques of students' news and feature assignments for campus publication with emphasis on public affairs. Writing uses different reporting methodologies: interviewing, official records research, direct and participant observation, and survey research.

COMM 341 PROFESSIONAL AND ORGANIZATIONAL COMMUNICATION (3) *Prerequisite: COMM 101, 112, or 114.* This course introduces organizational theories and communication networks as they function in today's human organizations. Emphasis is on internal communication of the organization within itself and also on the abilities one needs in that environment, such as interviewing, group discussion techniques and decision-making, and public presentation in a business setting.

COMM 350 POLITICAL COMMUNICATION (3) *Prerequisite: COMM 101, 112, or 114.* This course focuses on the theory, research, and practice of political communication. Students are involved in understanding the theories regarding political and campaign rhetoric including local levels of political rhetoric, state levels of political rhetoric and presidential rhetoric. Students locate and discuss candidate and office holder strategies through commercials, speeches, debates, print materials, and appearances on television. Students serve as mock communication advisors to candidates and office holders and make recommendations on matters involving rhetorical style and content.

COMM 362 CRISIS COMMUNICATION (3) *Prerequisites: COMM 171, 260.* This course offers students the opportunity to study crisis communication theory applied to a variety of contexts including the significance of crisis communication in businesses, politics, entertainment, and social advocacy. Course content includes the components of crisis communication, forming a crisis management team, communication responses to crisis, effectively employing crisis communication strategies, and structuring organizational crisis communication.

COMM 372 MEDIA CRITICISM (3) *Prerequisite: COMM 171.* As both future producers and consumers of mass media texts, students face the challenge of creating and determining meaning in our society. By applying critical theory to popular culture texts, this course develops analytical skills needed to determine how meaning is placed in and taken from texts and to understand the cultural contexts of media messages.

COMM 377 STUDY ABROAD (1-6) *Prerequisite: Consent of instructor.* This course provides students with the opportunity to study principles of communication in foreign settings.

COMM 381 CONVERGENCE MEDIA: BROADCASTING IN AN INTERNET WORLD (3) *Prerequisites: COMM 202, 206.* This course is a study of reporting, writing, and producing radio, television, and internet-based media. Attention is given to the preparation of audio and video news reports. The history of broadcast news and legal aspects of broadcast communication are discussed in the context of evolving cultural interests, changing business paradigms, and emerging technologies.

COMM 382 DOCUMENTARY DESIGN AND PRODUCTION (3) *Prerequisites: COMM 201 and 202 or 206.* This course provides students with the opportunity to examine documentary film, video, and audio forms while researching and producing projects in those fields. Projects will blend field taping and editing with studio production.

COMM 395 CULTURAL IMPACT OF POPULAR MEDIA (3) *Prerequisite: COMM 171.* Mass media has a rich and varied history. In this course, students will explore the historical and cultural dimensions of particular genres and/or media. Students will also examine the role of popular memory through the study of media audiences and their experiences with media.

COMM 397 INDEPENDENT STUDY IN COMMUNICATION (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

COMM 398 SPECIAL TOPICS IN COMMUNICATION (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

COMM 399 INTERNSHIP IN COMMUNICATION (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, supervising faculty, and School dean prior to registration.* This internship provides application of historical, critical, and/or theoretical knowledge under direct supervision of a practicing professional. Interns may work in radio and television stations, newspapers, advertising and public relations agencies, and other areas approved by the faculty advisors. (See "Internships.")

COMM 401 ADVANCED COMMUNICATION THEORY AND SENIOR THESIS (3) *Prerequisites: Minimum of 82 credit hours of coursework, COMM 303, and 301 or 372.* This course examines the process of theory creation and recent developments in communication theory and research. Emphasis is placed on important theories in the areas of rhetoric, media, and speech communication. Students will design, implement, and present in correct written form an original research study that serves as their senior thesis.

COMM 404 ADVANCED DIGITAL EDITING AND MOTION GRAPHICS (3) *Prerequisite: COMM 304.* This course continues student progress in advanced digital media composition with particular emphasis on developing problem solving skills. The ability to deconstruct a creative idea into manageable components allows students to go beyond imitation and repetition and develop new creative projects.

COMM 405 COMMUNICATION LAW AND ETHICS (3) *Prerequisites: COMM 101, 112 or 114, and 201.* This course examines both legal responsibilities and ethical decisions in communication. Key principles and court rulings will be examined that define our First Amendment responsibilities and our rights to speak, publish, and dissent. Content includes libel, privacy, free press/fair trial, fighting words, obscenity, advertising and broadcast regulations, symbolic dissent, and prior restraint. This course also examines ethical theories and moral responsibilities for communication choices in personal relationships, politics, advertising and public relations, organizations, and media.

COMM 411 SUPERVISED PRACTICUM - CRITOGRAPH (1-3) *Prerequisite: COMM 202.* Enrollment in these courses is limited to students holding positions of responsibility on the *Critograph* staff. Requirements and review criteria are established between instructor and student and the course is open to any Communication Studies major.

COMM 412 COMMUNICATION AND LEADERSHIP (3) *Prerequisite: COMM 341.* The study of principles, methods, and theories of effective leadership and its relationship to communication practices and organizational culture. Leadership is examined from both the professional or business environment and as applied to daily life through the study of classic films.

COMM 440 PUBLIC RELATIONS MEDIA AND CAMPAIGNS (3) *Prerequisites: COMM 302.* This course is an intensive experience in "real world" public relations problems. Students will draw on communication theory and engage in experiential learning while they produce "authentic" public relations campaign (or communication) materials and proposals for practical analysis. It also serves as the capstone course for the Public Relations track within the major.

COMM 450 PRODUCING AND EDITING ACROSS MEDIA (3) *Prerequisites: COMM 381, 405.* This course provides study and practice in multimedia production and news-flow oversight. Students gain practical experience working across a range of media while applying analytical and theoretical approaches to fact-based digital storytelling. Audience, legal and ethical considerations are also emphasized. Student work will be assessed through a semester long e-portfolio that includes projects in text, photography, video and audio.

COMM 477 SENIOR PROJECT (3) *Prerequisite: Permission of instructor.* This course allows journalism students to gain practical experience in the field of public relations or newspaper, magazine, or broadcast reporting. Independent study on or off campus is usually required. The nature of the project determines the credit given.

COMM 480 ADVANCED STAGE AND STUDIO TELEVISION (3) *Prerequisites: COMM 104, 180.* This course examines advanced studio practices including programming of major studio components such as the broadcast switcher and live graphics workstations. Additionally, students will gain experience in the integration of studio, multi-camera field production, and multimedia elements. Critical analysis of directing techniques and directorial problem solving are also included.

COMM 485 PRODUCING AND DIRECTING FOR ELECTRONIC MEDIA (3) *Prerequisites: COMM 104, 206.* Students in this course will develop and execute advanced productions ranging from live broadcasts to multimedia presentations. Emphasis will be on the organizational processes unique to producing and directing media projects. The course will also include seminar discussions of the media industry. Students will develop material for professional portfolios.

COMM 499 DONOVAN MEDIA DEVELOPMENT CENTER PRACTICUM (3-6) *Prerequisites: COMM 104, 206.* This practicum provides for the application of multimedia production knowledge and skills to produce work commissioned by the Donovan Media Development Center under the direct supervision of a faculty member. The Donovan Center solicits projects from non-profit clients and others to create video and audio productions, PowerPoint presentations, and graphic designs that promote the aims of those organizations. Students create portfolios of their work for these clients that may be used for evaluation purposes and in their search for employment upon graduation.

COMPUTER SCIENCE COURSES (C S)

C S 100 INTRODUCTION TO COMPUTER CONCEPTS (3) Two hours lecture and one hour lab. This hands-on computer literacy course is designed to introduce students to computer concepts and applications in today's world. Topics include word processing, spreadsheet software, database management, computer communications, and networking. Important historical, moral, and social issues related to computing are covered.

C S 105 INTRODUCTION TO COMPUTATION (3) Three hours lecture. This course introduces students to the true nature of computer science, what computer scientists really do, how they think, and what they accomplish. The focus is on using computation and logical thought techniques to solve problems. Many of the most interesting and significant topics in computer science will be covered. Selected topics may include, but are not limited to, artificial intelligence, digital logic, fractals, Gödel's theorem, NP-complete problems, parallel computing, probability, random number sequences, Turing machines, and scientific visualization.

C S 115 USING THE INTERNET (1) Combined one-hour lecture/laboratory. This five-week hands-on course will teach non-computer professionals basic use of the Internet. Topics may include use of E-Mail, use of a World Wide Web browser, telnetting, file transfer protocol (FTP), and HTML authoring to create home pages on the World Wide Web.

C S 131 FUNDAMENTALS OF PROGRAMMING IN BASIC (3) Three hours lecture. This course is an introduction to the high-level programming language BASIC. Students learn fundamentals of programming, including use of variables, arrays, various control structures, subroutines, and file I/O. (Strongly recommended before C S 141 for students with no previous programming experience who are considering a major in computer science.)

C S 141-142 INTRODUCTION TO COMPUTER SCIENCE AND STRUCTURED PROGRAMMING (4, 4) Three hours lecture and two hours lab. This introduction to computer science course sequence focuses on programming, problem solving, and algorithm development with implementation on a computer using a structured programming language. Topics include computer organization, debugging and testing techniques, structured programming, string processing, searching and sorting techniques, an introduction to data structures, and recursion. It is strongly recommended that students without any prior programming experience complete C S 131 before enrolling in C S 141.

C S 201 SYSTEM AND NETWORK ADMINISTRATION (3) *Prerequisite: C S 131 or 141.* Three hours lecture. Students experience a hands-on approach to system and network administration. General network and system administration is explored using two or more operating systems. Topics include system configuration, network planning, routine system maintenance, firewalls and security, Internet connectivity, system optimization, troubleshooting, and scripting languages.

C S 220 BUSINESS COMPUTER PROGRAMMING AND FILE SYSTEMS (4) *Prerequisite: C S 131 or 141.* Three hours lecture and two hours lab. The student studies a programming language appropriate for a business environment and uses this language to write programs that have applications to business and information systems. The student studies the creation and use of sequential, direct access, indexed, and indexed-sequential files.

C S 231 SOPHOMORE PROJECT (3) *Prerequisite: C S 142.* Three hours lecture. In this course students produce a number of intermediate-level programs using skills learned in C S 141-142. Sophomore Project is designed to provide the student with substantial experience writing software. Emphasis will be placed on software development skills needed to produce larger programs. Effective techniques for designing, implementing, and debugging intermediate-sized programs will be mastered.

C S 235 COMPUTER NETWORKS (3) Three hours lecture. This course is a study of the design, use and analysis of computer networks. Topics include the major theoretical aspects of computer, network protocols, routing algorithms, and computer security.

C S 241-242 DATA STRUCTURES AND ABSTRACTION I, II (4,4) *Prerequisites: C S 231 for C S 241; C S 241 for C S 242.* Three hours lecture and two hours lab. These courses combine a study of data structures and data abstraction as they relate to the efficient storage and retrieval of data in digital computer systems. Topics may include lists and inverted lists, queues, stacks, trees, networks, hashing, various key structures, and the use of data structures to implement common file organizations, along with techniques of object-oriented analysis and programming.

C S 271 COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE PROGRAMMING (4) *Prerequisite: C S 131, 141 or 220.* Three hours lecture and two hours lab. This course introduces the concepts of machine and assembly language programming and computer architecture. The student studies the syntax of assembly language and becomes proficient in writing programs in assembly language.

C S 298 SPECIAL TOPICS IN COMPUTER SCIENCE (3) Appropriate for freshman and sophomores, this course can focus on a wide variety of topics that provide detailed explorations of technologies of particular interest to computer science majors and minors. Topics will frequently incorporate preparation for professional certification.

C S 322 PROGRAMMING LANGUAGES (3) *Prerequisite: C S 142.* Three hours lecture. This course is a comparative study of modern high-level programming languages, their syntax, and acceptors. The student is expected to write programs in any of the languages studied which may include PASCAL, LISP, BASIC, FORTRAN, COBOL, ALGOL, ADA, APL, SNOBOL, PROLOG, and MODULA II.

C S 335 COMPUTER NETWORKS (3) *Prerequisite: C S 142.* Three hours lecture. This course is a study of the design, use, and analysis of computer networks. Topics include the major theoretical aspects of computer networks and the algorithms used in their implementation and the major networks currently in use. Students can experiment in a laboratory setting.

C S 345 WINDOWS PROGRAMMING (3) *Prerequisites: C S 141, 142.* Three hours lecture. This course will provide the student with the tools needed to create modern graphical user interfaces using a number of different tools and paradigms. Core topics include the event-driven programming model, graphi-

cal coordinate systems, libraries for creating, managing and rendering windows, and simple animation and graphics. Students will create graphical user interfaces for a number of programs.

C S 350 SOFTWARE SYSTEMS ANALYSIS AND DESIGN (3) *Prerequisite: C S 142 or 220.* Three hours lecture. This course involves the study and implementation of the strategies and techniques of structured software systems development. Topics include system specification and documentation. Data management systems, structures, and applications are also covered.

C S 355 COMPUTER FORENSICS (3) *Prerequisite: C S 142 or 235.* Securing relevant evidence from computer systems and other electronic devices requires a range of skills and a deep understanding of how data is stored and organized electronically. This course serves as an introduction to the technologies relevant to computer forensics and provides the student with hands-on experience collecting and analyzing electronic data.

C S 360 OPERATING SYSTEMS AND COMPUTER ORGANIZATION (3) *Prerequisite: C S 142.* Three hours lecture. This course is a study of the hardware and software systems and subsystems that make the basic components of a computer system accessible to the managers and users of that system. Topics include processes, scheduling, resource allocation, protection, virtual memory, parallel processing, input/output processing, data encoding, accessing techniques, communications, compilers, and utilities.

C S 365 GAME PROGRAMMING (3) *Prerequisite: C S 142.* Three hours lecture. This course introduces the concepts of 3-D graphics and modeling and realtime interaction in an event-driven environment. Topics include geometric transformations, light models, texture mapping, special effects, 3-D sound, physics modeling, and graphics engines.

C S 370 DATABASE MANAGEMENT SYSTEMS (3) *Prerequisite: C S 142 or 220.* Three hours lecture. This course studies the fundamental principles and roles of database management systems. Database models covered include the relational, entity-relationship, hierarchical, and network models with primary emphasis on the relational model. Other topics include database design and physical storage management. Although database theory is an important part of this course, students are expected to become proficient in an actual DBMS.

C S 375 PRINCIPLES OF DIGITAL SYSTEMS (4) Three hours lecture and two hours lab. The principal concepts of digital systems and their applications to computer science are studied. Topics include number representations, codes, switching theory, sequential circuits, comparators, arithmetic circuits, counters, memory implementation, and integrated circuit logic families.

C S 380 ARTIFICIAL INTELLIGENCE (3) *Prerequisite: C S 241.* Three hours lecture. This course is a study of the theoretical issues and programming techniques involved in artificial intelligence. Core topics include search, knowledge representation, and reasoning. Additional topics may include game theory, planning, understanding, natural language processing, machine learning, neural networks, genetic algorithms, expert systems, and real-time systems. Students develop competence in a language widely used for A.I. programming, typically LISP or PROLOG.

C S 385 INTERNET-BASED SYSTEMS (3) *Prerequisite: C S 370.* Three hours lecture. In this course students develop an intermediate-level proficiency in the use of HTML, Access, Visual Basic, VBScript, and SQL as applied to accessing databases over the World Wide Web. The student uses these development tools together to develop interactive web-based applications that access databases. Applications developed in the course utilize graphic images, tables, forms, frames, ASP, CGI programming and database interfaces in an interactive GUI environment.

C S 397 INDEPENDENT STUDY IN COMPUTER SCIENCE (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

C S 398 SPECIAL TOPICS IN COMPUTER SCIENCE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

C S 399 **INTERNSHIP IN COMPUTER SCIENCE (1-12)** *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* Internships occur in businesses or other institutions involved in computer science-related work. (See “Internships.”)

C S 451-452 **SENIOR PROJECT (3,3)** *Prerequisites: C S 242 and senior standing.* This is a capstone course in which the student proposes and completes an independent research or development project. Research projects involve review of significant literature and the writing of a major technical paper, which may require design, implementation, and evaluation of experimental systems. Development projects require full system specifications, system design and analysis, user documentation, and complete, well documented source code.

CRIMINOLOGY COURSES (CRIM)

CRIM 241 **CRIMINOLOGY (3)** This course is a sociological analysis of the nature and extent of criminal behavior in the United States and around the world. It reviews the past and current theories that attempt to explain the causes of criminal behavior. In addition, society’s response to crime, the criminal justice system, and its various components are examined.

CRIM 243 **JUVENILE DELINQUENCY (3)** The course examines the nature and extent of juvenile delinquency in the United States and other modern societies. It explores how juvenile delinquency differs from adult criminal behavior in its legal status, causes, and the ways society reacts to it. The juvenile justice system and its various components are examined.

CRIM 244 **CRIMINAL JUSTICE PROCESS (3)** This course presents a sociological analysis of the various practices and institutions that modern societies have created to deal with criminal behavior. The practices examined include probation, other community-based techniques, jail, prison, parole, and capital punishment. The consequences and effectiveness of each are analyzed.

CRIM 301 **COMPARATIVE CRIMINAL JUSTICE (3)** *Prerequisite: CRIM 244.* This course examines the world’s major criminal justice systems. In particular it analyzes the effects of history, culture and politics on the policies and operations of law enforcement, judicial and correctional institutions in common law, civil law, Islamic and socialist legal systems.

CRIM 320 **VICTIMOLOGY (3)** *Prerequisite: CRIM 241.* Victimology will provide a comprehensive overview of the process of victimization throughout our society. This course will also discuss the history of victimization, theories of victimization, and various categories of victimization, stratification and victim typologies. Specific topics will include the scope of victimization, restorative justice, victims’ rights, child abuse, elder abuse, international sex trafficking, and domestic violence.

CRIM 372 **QUANTITATIVE METHODOLOGY (3)** *Prerequisites: SOCI 270, 280.* This course will focus on data collection and analysis techniques that are particularly useful in community settings. Attention will be given to needs and assets assessments, program evaluations, gathering and using secondary data, linking data to geographic information systems software, focus groups, and action research.

CRIM 377 **STUDY ABROAD (1-6)** *Prerequisite: consent of instructor.* This course provides students with the opportunity to study societal institutions and social organizations’ patterns in foreign settings.

CRIM 397 **INDEPENDENT STUDY IN CRIMINOLOGY (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

CRIM 398 **SPECIAL TOPICS IN CRIMINOLOGY (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

CRIM 399 **INTERNSHIP IN CRIMINOLOGY (1-12)** *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, supervising faculty, and School Dean prior to registration.* This internship provides the student with a supervised work experience in a setting in which criminology is applied. Examples of work setting include, but are not limited to, law enforcement agencies, correctional agencies, and social service departments. Internships are developed by the student with the assistance from the criminology staff and/or the internship coordinator. (See “Internships.”)

CRIM 430 **SENIOR RESEARCH CAPSTONE (3)** *Prerequisite: CRIM 372.* This course is designed to be the capstone course in which the student, utilizing substantive and methodological knowledge accumulated through previous course work, will develop and test relevant research questions related to crime theories. The course culminates with the writing and presentation of a formal research paper.

ECONOMICS COURSES (ECON)

ECON 100 **ECONOMIC PERSPECTIVES ON CURRENT ISSUES (3)** This course applies economic thinking to contemporary issues using a non-technical approach. Topics include environmental issues, crime, poverty, health care, the global economy, and the role of government. This is an introductory course and is not a substitute for ECON 201 or 202.

ECON 101 **FRESHMAN SEMINAR IN ECONOMICS (3)** This theme-based course gives students exposure to economics early in their college career. Designed around the interests of the instructor, the course will provide students with the opportunity to use economic principles to explore an issue from multiple perspectives. Through in-depth study of a specific topic (e.g., clean energy, immigration, globalization, financial crises, health care economics, and slavery), students will be introduced to basic economic concepts as they develop their critical thinking and communication skills.

ECON 201 **PRINCIPLES OF ECONOMICS-MICRO (3)** This study of basic economic principles and the structure and functioning of a modern economy serves as an introduction to microeconomics.

ECON 202 **PRINCIPLES OF ECONOMICS-MACRO (3)** This study of basic economic principles and the structure and functioning of a private enterprise economy serves as an introduction to macroeconomic.

ECON 250 **RESEARCH METHODS IN ECONOMICS (4)** *Prerequisite: General Education Math.* Three hours lecture and two-hour lab. Basic mathematical and statistical tools are developed in this course. Topics include hypothesis testing and introductory regression analysis. Basic calculus, linear and matrix algebra, and other mathematical tools used in economic analysis are also developed. Emphasis is on applications of statistical and mathematical tools for economic analysis and on preparation for writing the senior thesis.

ECON 255 **ENVIRONMENTAL ECONOMICS (3)** An examination of environmental issues from an economic perspective, this course helps students understand environmental problems by applying a rational choice framework to resource allocation decisions in the presence of externalities. Significant attention is paid to the discrepancy between market allocations that are economically efficient and regulated allocations that are socially optimal. Topics covered include the Tragedy of the Commons, production and consumption externalities, pollution abatement strategies (including regulation, corrective taxation, pollution credits, and property rights delineation), as well as the political and economic foundations of optimal environmental policy.

ECON 300 **INTERMEDIATE MACROECONOMIC THEORY (3)** *Prerequisites: ECON 201-202. Corequisite ECON 250.* This course examines theories of national income determination, focusing attention on the factors and processes that govern the growth rate of income, employment, output, and prices. Fiscal and monetary policies, as well as supply-side strategies, to facilitate full employment and economic growth are studied.

ECON 301 **INTERMEDIATE MICROECONOMIC THEORY (3)** *Prerequisites: ECON 201-202 and ECON 250.* This course provides a theoretical analysis of the resource allocation mechanism in a market economy, including consideration of the impacts of government policies on market outcomes.

Students study the behavior of individual producers and consumers, the influence of market structure on the pricing and output decisions by firms, and the microeconomic foundations of competitive strategy.

ECON 303 MANAGERIAL ECONOMICS (3) *Prerequisites: ECON 201- 202, 250, and General Education Math.* This course introduces the use of economic theory and new techniques of decision-making in the management of business enterprise. Cost and demand analysis, economic forecasting, profit management, capital budgeting, and pricing policies are among the topics covered.

ECON 305 MONEY, CREDIT, AND BANKING (3) *Prerequisites: ECON 201-202.* The nature and functions of money and the role played by financial intermediaries are studied with focus on full-service commercial banks and the federal reserve banks. Emphasis is placed on money creation by the depository institutions and the Federal Reserve System of the U.S.

ECON 308 INTERNATIONAL ECONOMIC POLICY (3) *Prerequisites: ECON 201-202.* Focus is on important areas in current international economic policy and international trade policy, international monetary relationships, and operations of transnational corporations in the world economy. Microeconomic and macroeconomic tools are used in the study of these issues.

ECON 330 HISTORY OF ECONOMIC THOUGHT (3) This course studies the development of economic theory from scholasticism to classical thought (including Malthus, Mill, Ricardo, Smith, and Marx) to Neo-Classical economics. Each writer's contribution is evaluated in light of the development of modern economic theory.

ECON 331 ECONOMIC HISTORY OF THE UNITED STATES: PART I (3) *Prerequisites: ECON 201-202.* This course studies the historical development of the United States economic system and its role in the growth of the nation. Emphasis is placed on the eighteenth and first half of the nineteenth centuries. Micro and macro economic factors are analyzed. Topics include mercantilism, the economic determinants and consequences of the American Revolution, slavery, and the Civil War.

ECON 332 ECONOMIC HISTORY OF THE UNITED STATES: PART II (3) *Prerequisites: ECON 201-202.* This course studies the United States economy from the end of the Civil War to the present. Both macro and micro economic theory are applied to period events. Topics include labor unions, the rise of big government, and the Great Depression.

ECON 361 PUBLIC FINANCE (3) *Prerequisites: ECON 201-202.* This course is a theoretical and institutional study of government and its effects on resources allocation, income distribution, resource employment level, and economic growth.

ECON 364 URBAN AND REGIONAL ECONOMICS (3) *Prerequisites: ECON 201-202.* This study of location theory, land use, and regional development emphasizes policy problems in urban housing, transportation, crime, and pollution.

ECON 365 ECONOMICS OF TERRORISM (3) *Prerequisites: ECON 201-202.* This course explores the causes and consequences of terrorism from an economic perspective. In addition to studying the economic implications of terrorism and gaining an understanding of the fundamentals of political risk assessment, students will use principles of competitive strategy to develop and evaluate alternative responses to the terrorist threat.

ECON 377 STUDY ABROAD (3) *Prerequisite: Consent of instructor.* This course offers students the opportunity to study economics in foreign settings.

ECON 397 INDEPENDENT STUDY IN ECONOMICS (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

ECON 398 SPECIAL TOPICS IN ECONOMICS (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

ECON 399 **MANAGERIAL ECONOMICS INTERNSHIP (1-12)** *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* Qualified students may earn credit for an internship with a business firm or agency while being supervised by an appropriate member of the economics faculty. (See “Internships.”)

ECON 400 **INFORMATION, UNCERTAINTY, AND RISK (3)** *Prerequisites: ECON 300 or 301.* This course offers an introduction to the tools and techniques for making decisions under conditions of risk and uncertainty, including such topics as risk analysis, scenario planning, game theory, decision trees, and contingency management. Heavy emphasis will be placed on real-world applications, e.g., information management, competitive intelligence, and security issues associated with political conflict. Students will be exposed to the challenges of dealing with ill-defined problems through a variety of case studies.

ECON 450W **SENIOR SEMINAR IN ECONOMICS [Writing Enriched] (3)** *Prerequisites: ECON 300-301, and ENGL 111W-112W or ENGL 223W.* Students are required to undertake a research project using mathematical and statistical methods introduced in ECON 250.

EDUCATION COURSES (EDUC)

EDUC 101 **INTRODUCTION TO EDUCATION AND RELATED PROFESSIONS (3)** With particular attention to American public education and the role of the licensed professional teacher, the course examines historical, philosophical, and current social influences on contemporary practice, institutional development, and public attitudes about children and education. The course includes an exploration of the expanding range of career paths open to teaching and human development professionals and introduces teacher licensing requirements and procedures. Professional vocabulary, attitudes, and performance expectations are introduced as an integral and functional component of the course.

EDUC 201 **CLASSROOM MANAGEMENT IN THE INSTRUCTIONAL CONTEXT (3)** This course introduces the primary task model used by effective teachers. Students study the ongoing cycle of planning, implementation, and assessment and how these are linked. Classroom and behavior management theory and strategies are developed as integral components of the instructional cycle.

EDUC 202 **FIELD EXPERIENCE I (1)** This course is designed to provide pre-service teachers with initial opportunities to observe and participate in the dynamics of a classroom and to share, question, and reflect upon those experiences in campus seminars. This course may be retaken only once with the permission of the instructor. A grade of B- or above is required before taking EDUC 320, 444, or SPED 330. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student’s expense.

EDUC 211 **INSTRUCTIONAL STRATEGIES (3)** *Prerequisite: EDUC 201.* This course deals with the specific instructional strategies teachers develop including: establishing rapport with faculty and staff; becoming familiar with school policies and routines; reviewing cumulative folders to find out required accommodations for individual students; introducing themselves to parents; arranging classrooms; organizing and ordering materials; mentoring; working with aides and paraprofessionals; setting up grade books; becoming familiar with community resources; and setting behavioral expectations.

EDUC 313W **READING AND LANGUAGE ACQUISITION I [Writing Enriched] (3)** *Prerequisites: EDUC 211, and ENGL 111W-112W or ENGL 223W; Corequisite: EDUC 320 or SPED 330.* This course is designed to impart a thorough understanding of the complex nature of language acquisition and the reading process to pre-service teachers. It develops their comprehension of sound/ symbol relationships, phonemic awareness, word attack skills, and a wide variety of comprehension and instructional strategies.

EDUC 320 **FIELD EXPERIENCE II (E) (1)** *Prerequisites: EDUC 201 and 211. Corequisite or prerequisite: EDUC 313.* This course provides pre-service teachers with opportunities to apply instructional skills in controlled situations under the guidance of experienced professionals. Students participate in two hours of observations and tutorial instructional activities per week in classrooms in local school districts. Seminars and other activities provide opportunities for analysis and reflection. This course may be retaken only once with the permission of the instructor. A grade of B- or above is required before taking EDUC 420. This course may be retaken only once with permission of the instructor. Enrollment in EDUC 320 is limited to students enrolled in a teacher licensure program. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student’s expense.

EDUC 324 METHODS: SOCIAL STUDIES INSTRUCTION (2) *Prerequisite: EDUC 201, 211, HIST 255, 256. Corequisite: EDUC 325 second half of the semester.* This is a linked course with EDUC 325 and is taught the first half of the semester. It is an interactive approach designed to help pre-service teachers gain the necessary knowledge, skills, and processes in social studies based on the Virginia Standards of Learning and practices recommended by the National Council for the Social Studies.

EDUC 325 METHODS: LANGUAGE ARTS INSTRUCTION (2) *Prerequisite: EDUC 201, 211. Corequisite: EDUC 324 first half of the semester.* This is a linked course with EDUC 324 Methods: Social Studies and is taught the second half of the semester. This course is designed to help pre-service teachers gain the necessary knowledge, skills, and processes which foster students' success on the Virginia Standards of Learning tests in language arts. Major goals are to promote intellectual curiosity and support lifelong learning.

EDUC 345 CURRICULUM IN EARLY CHILDHOOD EDUCATION (3-5) (3) *Prerequisites: EDUC 101, 201, 211, PSYC 241.* This course is designed for prospective early childhood teachers at the undergraduate level. Current policies, theories, and practices in early childhood education will be presented. Students will learn historical aspects of early education, learning and developmental theories (such as the impact of brain development on learning), developmentally appropriate practices (DAP), social and cultural contexts, creative appropriateness, importance of play for young children, curriculum planning and evaluation, early childhood schedules and routines, and ways to communicate with parents.

EDUC 351 READING IN THE CONTENT AREAS (3) *Prerequisites: EDUC 201 or HPE 310.* This course is designed to impart a thorough understanding of the methodologies and strategies for developing literacy skills to enhance the learning of content area subject matter across all disciplines while addressing the diverse needs of the secondary student population.

EDUC 352 TEACHING IN MIDDLE/SECONDARY SCHOOL (3) *Prerequisite: EDUC 201.* This course is designed to impart a thorough understanding to pre-service teachers of the methodologies and strategies for developing instruction and emphasizing the planning of lessons, units, and related materials to enhance the learning of content area subject matter across all disciplines while addressing the diverse needs of the middle and secondary school student population. Methods for meeting the developmental needs of students from grades 6-12 will be stressed.

EDUC 377 STUDY ABROAD (1-3) *Prerequisite: Consent of instructor.* This course provides students with the opportunity to study principles of education in foreign locations.

EDUC 397 INDEPENDENT STUDY IN EDUCATION (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

EDUC 398 SPECIAL TOPICS IN EDUCATION (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

EDUC 420 FIELD EXPERIENCE III (E) (1) *Prerequisites: EDUC 202, 320, with a B- or above.* This course provides students with opportunities to apply instructional skills in controlled situations under the guidance of an experienced professional. Students participate in two hours of observations, tutorial, and small and large group instructional activities per week in classrooms in local school districts. On-campus and in-school seminars provide opportunities for analysis and reflection. A grade of B- or above is required in this course before student teaching. This course may be retaken only once with the permission of the instructor. Enrollment in EDUC 420 is limited to students enrolled in a teacher licensure program. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

EDUC 423 READING AND LANGUAGE ACQUISITION II (3) *Prerequisite: EDUC 313.* Taken the semester prior to student teaching, this course builds on knowledge acquired in Reading and Language Acquisition I (EDUC 313). It introduces additional skills to achieve proficiency in a wide variety

of comprehension strategies, including a repertoire of questioning strategies, understanding the dimensions of word meanings, teaching summarizing and retelling skills, and guiding students to make connections beyond the text.

EDUC 424 METHODS: SCIENCE INSTRUCTION (2) *Prerequisites: EDUC 201, 211. Corequisite: EDUC 425 second half of the semester.* This is a linked course with EDUC 425 Methods: Math and is taught the first half of the semester. It is an active inquiry approach to model practices recommended by the National Science Education Standards. Methods for teaching knowledge and skills based on the Virginia Standards of Learning are offered from a student-centered approach. Multiple forms of assessment are modeled and the effective use of technology as a tool for learning is stressed.

EDUC 425 METHODS: MATH INSTRUCTION (2) *Prerequisites: EDUC 201, 211. Corequisite: EDUC 424 first half of the semester.* This is a linked course with EDUC 424 Methods: Science and is taught the second half of the semester. This course uses model practices recommended by the National Council on Teaching Mathematics. Methods for teaching knowledge and skills based on the Virginia Standards of Learning are offered from a student-centered approach. Multiple forms of assessment are modeled and the effective use of technology as a tool for learning is stressed.

EDUC 427 STUDENT TEACHING (E) (11) *Prerequisites: Completion of all major course requirements, and admission to student teaching. Corequisite EDUC 448.* This course is an application of effective teaching skills and content at the elementary level. Students are assigned to one semester, full-time block in school systems under the guidance of College personnel and classroom teachers where they practice their teaching skills. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

EDUC 440 ADVANCED FIELD EXPERIENCE IN CHILD DEVELOPMENT (3-6) *Prerequisites: Successful completion of field experiences, minimum 2.5 GPA overall, consent of instructor for 3 credit hours and consent of dean for 6 credit hours.* This course provides an opportunity for a pre-professional learning experience in a non-school setting. Possibilities include preschool education, libraries, educational support programs (e.g. tutorial services) for students with special needs, and social service organizations. Open only to senior students taking the non-licensure option. Application required.

EDUC 444 FIELD EXPERIENCE II (S) (2) *Prerequisite: Admission to Teacher Preparation Program and passing scores on Praxis I. Corequisite: EDUC 352.* This course provides students with opportunities to apply instructional skills in controlled situations under the guidance of an experienced professional. Students participate in observations, videotaped lessons, and on-site practice teaching. On-campus and in-school seminars provide opportunities for analysis and reflection. A grade of B- or above is required in this course before student teaching. This course may be retaken only once with the permission of the instructor. Enrollment in EDUC 444 is limited to students enrolled in a teacher licensure program. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

EDUC 447 STUDENT TEACHING (SECONDARY) (11) *Prerequisites: Completion of major and minor course requirements and admission to student teaching. Corequisite EDUC 448.* This course is an application of all the effective teaching skills and content at the secondary level. Students are assigned to a one semester, full-time block in school systems under the guidance of College personnel and classroom teachers where they practice their teaching skills. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

EDUC 448 STUDENT TEACHING SEMINAR (1) *Corequisite: EDUC 427, 447, SPED 437, HPE 467, or MUSC 460.* This course will continue the student teachers' study of best practices and engage in discussions and activities to help them acquire the professional values and practical strategies to make the successful transition from college student to student teacher to licensed professional teacher.

ENGLISH COURSES (ENGL)

ENGL 111W COMPOSITION I [Writing Enriched] (3) In this introduction to the writing process, students learn how to write, revise, and edit papers using a variety of expository forms to prepare for research and analytical writing done primarily in ENGL 112. The course includes a significant amount of

reading related to writing, such as essays across the disciplines, classics, and modern literature. ENGL 111 and 112 must be completed as a sequence. That is, a student must take ENGL 111 until successful completion, and in the following semester, a student must take ENGL 112 until successfully completed.

ENGL 112W COMPOSITION II [Writing Enriched] (3) In this continued work on the writing process, students learn how to take command of an argument and support it effectively. Students learn to read and interpret texts containing language with multiple levels of meaning, develop techniques of writing research papers using argument and analysis (with multiple sources), and research topics efficiently and effectively using the full range of resources, tools, and methodologies.

ENGL 201 LITERATURE AND CULTURE I: MASTERPIECES FROM ANTIQUITY THROUGH THE RENAISSANCE (3) *Prerequisites: ENGL 111, 112.* This introduction to the study of literature emphasizes the analysis of selected works from the period. The course includes a significant amount of writing related to the readings, including response essays, critical and creative papers, and tests.

ENGL 202 LITERATURE AND CULTURE II: WORKS FROM THE ENLIGHTENMENT TO THE PRESENT (3) *Prerequisites: ENGL 111, 112.* This introduction to the study of literature emphasizes the analysis of selected works from the period. The course includes a significant amount of writing related to the readings, including response essays, critical and creative papers, and tests.

ENGL 203 EXPOSITORY WRITING (3) [Writing] *Prerequisite: ENGL 111.* This course continues the development of the writer's abilities to generate, edit, and refine written compositions through the study of professional and student expository prose. Particular attention is given to the improvement of composing methods and to the expansion of the writer's range.

ENGL 205 INTRODUCTION TO CREATIVE WRITING (3) [Writing] *Prerequisite: ENGL 111.* This course focuses primarily on the writing of poetry and fiction and creative nonfiction and includes study of student and professional texts.

ENGL 209 NATURE WRITING (3) [Writing] *Prerequisite: ENGL 111.* Students advance their writing skills and their understanding of the natural world by reading model texts and writing creatively in at least two genres (such as poetry, creative nonfiction, and fiction). Students explore an array of approaches for writing about nature and the environment, including detailed personal observations, and students analyze how nature writing presents complex relationships between the human and natural worlds. Field trips to nearby sites may be required.

ENGL 210 WRITING IN THE WORKPLACE (3) [Writing] *Prerequisite: ENGL 111.* Students in this course will engage core professional writing concepts, including audience analysis, research, document design, usability, and ethical composing practices. Students will produce works including feasibility reports, usability tests, and public relations documents. Individual and group projects are a feature of this course, as is directed service-learning interaction with community partners.

ENGL 220W INTRODUCTION TO LITERARY STUDIES [Writing Enriched] (3) [Theory] *Prerequisites: ENGL 111W-112W or ENGL 223W.* Using literary texts as a focal point, this course explores the nature and functions of literature, the basics of literary analysis, the three principal genres (poetry, fiction, drama), conventions of writing about literature, and methods and materials of research. The course is intended to be the first course in the English major and is required for all English majors.

ENGL 223W ACADEMIC WRITING [Writing Enriched] (3) *Prerequisites: ENGL 111W-112W or ENGL 111-112.* Students in English 223 have taken English 111-112 or the equivalent where they learned to write, revise, and edit papers using a variety of expository forms and have practiced research and analytical writing. In this course, students will draw upon those skills to write with purpose and intent. Students will hone their reading and writing skills and apply their abilities to write effectively. With real-world application as the goal, students will work toward polishing and revising their writing as they prepare projects for publication.

ENGL 302 AMERICAN LITERATURE 1607-1865 (3) [B] *Prerequisite: ENGL 220.* This course is a study of major literary movements and writers from the time of the earliest settlers to the Civil War. Authors of the period may include Bradstreet, Franklin, Rowson, Sedgwick, Emerson, Thoreau, Hawthorne, Melville, Stowe, and Dickinson.

ENGL 303 **AMERICAN LITERATURE 1865-1950 (3) [C]** *Prerequisite: ENGL 220.* This course is a study of major literary movements and writers from the end of the Civil War to the end of World War II. Authors of the period may include Alcott, Twain, Crane, Wharton, Cather, Dreiser, Chopin, Jewett, Steinbeck, and Faulkner.

ENGL 306 **MEDIEVAL LITERATURE (3) [A]** *Prerequisite: ENGL 220.* This course is a survey of the major English literary texts of the medieval period, 500-1500 A.D. The course explores the tensions between warfare and romance in secular and religious literature of the period, including Beowulf, Arthurian legend, mystery plays, Chaucerian poetry, and the courtly lyrics of the later Middle Ages. All Old and Early Middle English texts are read in translation.

ENGL 314 **HISTORY OF THE ENGLISH LANGUAGE (3) [Teacher Licensure]** *Prerequisites: ENGL 111-112.* This course surveys the development of the English language from the Anglo-Saxon period to the present day. Changes in the language are explored in connection with social and historical contexts in Great Britain. Course work includes study of Old and Middle English grammar and some translation of texts. This course also focuses on application of material to teaching in the secondary schools.

ENGL 315 **ENGLISH GRAMMAR (3) [Teacher Licensure]** *Prerequisites: ENGL 111-112.* Especially recommended for those planning to teach, this course meets Virginia State Department of Education certification requirements for the teaching of English. This course offers an introduction to the basic elements of the study of language, including phonology (sound patterns), morphology (word formation), syntax (sentence structure), semantics (vocabulary), and orthography (spelling). The course also explores ways of teaching grammar and its impact on writing, reading, and speaking.

ENGL 317 **TEACHING WRITING (3) [Teacher Licensure]** *Prerequisite: ENGL 203, 205. Especially recommended for those planning to teach, this course meets Virginia State Department of Education certification requirements for the teaching of English.* This course includes elements of teaching composition as well as teaching creative writing. The premise of the course is that to teach writing, one needs to write, and that from sensitivity to the processes of writing comes the ability to guide others. The course is process-oriented, moving from writing assignments to critiquing pedagogical techniques, and discussing and planning assignments for students.

ENGL 320 **LITERARY CRITICISM (3) [Theory]** *Prerequisite: ENGL 220.* Surveying a range of theoretical approaches, this course focuses on the application of theory to literature.

ENGL 323 **MODERN MULTICULTURAL LITERATURE (3) [C]** *Prerequisite: ENGL 220.* Using twentieth and twenty-first century writers from around the world such as Milan Kundera, Fae Myenne Ng, and Chinua Achebe, the course explores different cultures, the effects of culture on perspective, the historical self-concepts of various peoples, and other peoples' attitudes toward America.

ENGL 334 **GENDER AND LITERATURE (3)** *Prerequisites: ENGL 111, 112.* This course focuses on representations of women and men, constructions of femininity and masculinity, and sexual politics. Major issues include constructions of gender, and intersections of gender with race, class, and nationality, and the role of reading and writing in processes of social change.

ENGL 337 **AMERICAN MULTI-ETHNIC LITERATURE (3) [C]** *Prerequisite: ENGL 220.* An examination of multi-ethnic literature by American authors in order to study and appreciate the collective construction of American identity by different cultural traditions.

ENGL 340 **THORNTON WRITING SEMINAR (1-3) [Writing] [Specific title changes annually]** *Prerequisite: Consent of instructor.* This course in writing is taught by the Thornton Writer-in-Residence. Enrollment is limited to specially selected students; prospective enrollees should apply to the Thornton Committee and be prepared to submit writing samples for admittance. The course is usually structured as a workshop and may be repeated for credit if the specific title and instructor are different.

ENGL 346 **CREATIVE WRITING: NON-FICTION (3) [Writing]** *Prerequisite: ENGL 205.* This workshop deepens the student's familiarity with the craft of creative nonfiction. Course content includes readings in literary nonfiction that demonstrate a range of formal and aesthetic styles, workshop discussion of student works-in-progress, and writing assignments culminating in a portfolio or series of completed works. Upon course completion, the student will have made satisfactory progress in writing a

personal essay, memoir, portrait, travel essay, or other work of creative nonfiction. The student will demonstrate competence in the workshop peer review process.

ENGL 349 CREATIVE WRITING: POETRY (3) [Writing] *Prerequisite: ENGL 205.* This workshop deepens the student's familiarity with the craft of poetry. Students read model texts, write to practice a variety of poetic techniques and forms, and share their own work. Students complete a portfolio of revised poems.

ENGL 350 CREATIVE WRITING: FICTION (3) [Writing] *Prerequisite: ENGL 205.* This workshop deepens the student's familiarity with the craft of fiction. Students read model texts, write to practice a variety of fictional techniques, and share their own work. Students complete a portfolio that includes revised fiction.

ENGL 353 LITERATURE OF THE TUDOR DYNASTY (3) [A] *Prerequisite: ENGL 220.* A survey of the literature in England during the turbulent reigns of the Tudor kings and queens, this course includes works shaped by Humanism, the Reformation, scientific empiricism, and an emerging independent British identity. Readings may include poetry, prose, and drama, and will explore developments in literary forms in a nation entering the early modern world.

ENGL 354 THE GOLDEN AGE (3) [A] *Prerequisite: ENGL 220.* A survey of the literature of late-Tudor and Stuart England, beginning in the 1580's and ending on the eve of the English Civil War, this course explores literature written during a time when public theatres, mass printing, and drastic changes in religious and political leadership changed the audience of English literature. The course will focus on the developments in poetry, prose, and drama of the period.

ENGL 355 INTERREGNUM, RESTORATION, AND REVOLUTION (3) [B] *Prerequisite: ENGL 220.* This course begins with readings from the often neglected period of the English Civil War and Interregnum, including non-canonical writings by religious radicals and Milton's arguments about monarchical rule. Students will read literature responding to a variety of political upheavals, including the "Glorious Revolution" and the various Catholic "threats" to the throne. Readings include the major satire and comedy of the period as well as early novels.

ENGL 356 ENLIGHTENMENT, EXPANSION, AND EMPIRE (3) [B] *Prerequisite: ENGL 220.* This course concentrates on poetry, prose, drama, philosophy and periodical literature which reflects and creates British identity in this period of rapid social and economic change. Students will consider the development of the English novel and the rise of sentimentality. Readings include literature about slavery, abolition, and women's rights as well as literature by poets of the laboring class.

ENGL 357 LITERATURE OF THE ROMANTIC PERIOD (3) [B] *Prerequisite: ENGL 220.* This course focuses on the principal writers of the Romantic Period in Britain such as Coleridge, Shelley, Byron, Wordsworth, Blake, and Keats, and on the essential elements of British Romanticism.

ENGL 358 LITERATURE OF THE VICTORIAN PERIOD (3) [B] *Prerequisite: ENGL 220.* This course examines the literature of the Victorian period through the works of such writers as Dickens, Eliot, Carlyle, Tennyson, Arnold, the Brownings, the Brontës, and Hardy, and may include transitional authors such as Shaw, Conrad, and Yeats.

ENGL 360 THE ENGLISH NOVEL (3) [B] *Prerequisite: ENGL 220* This course allows students to study the development of the novel through the Eighteenth and Nineteenth centuries in England. The course considers the novel as a genre and narrative and thematic innovations in English novels through the different periods.

ENGL 365 MODERN POETRY (3) [C] *Prerequisite: ENGL 220.* This course focuses on poetry through the twentieth and twenty-first centuries. The course considers poetry as a genre and examines the innovations in poetic conventions through different modern literary periods.

ENGL 366 SOUTHERN LITERATURE (3) [C] *Prerequisite: ENGL 220.* An overview and analysis of the seminal prose and poetry of the American South from the twentieth and twenty-first centuries. Writers under examination will include such figures as William Faulkner, the fugitive poets, Eudora Welty, Alice Walker, and Lee Smith.

ENGL 368 MODERN FICTION (3) [C] *Prerequisite: ENGL 220.* This course explores fiction through the twentieth and twenty-first centuries. The course considers fiction as a genre and examines the narrative and thematic innovations in fiction through different modern literary periods.

ENGL 369 MODERN DRAMA (3) [C] *Prerequisite: ENGL 220.* This course examines drama through the twentieth and twenty-first centuries. The course considers dramatic literature as a genre and examines innovations in the writing and staging of dramatic literature through different modern literary periods.

ENGL 371 CONTEMPORARY LITERATURE (3) [C] *Prerequisite: ENGL 220.* An examination of literature written in English from the second half of the twentieth century to the present.

ENGL 373 LITERATURE AND FILM OF VIETNAM (3) *Prerequisites: ENGL 111, 112.* This course will concentrate on the literature, feature films, and documentaries generated by the Vietnam War. In addition to offering the “facts” surrounding the war, it will incorporate a variety of uncommon perspectives on that war - i.e. fiction and non-fiction written by women and by Vietnamese authors. Social/political commentary on the 60’s and 70’s and on the long-range effects of this Vietnam experience upon the American psyche will also be incorporated.

ENGL 377 STUDY ABROAD (3) *Prerequisite: ENGL 220.* This course provides students with the opportunity to study in foreign settings.

ENGL 397 INDEPENDENT STUDY IN ENGLISH (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor, and credit is dependent on the nature of the work. May be repeated for no more than six credits.

ENGL 398 SPECIAL TOPICS IN ENGLISH (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

ENGL 399 INTERNSHIP IN ENGLISH (1-6) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* The internship program allows students practical experience in fields using their training as English majors. Interns may work in such settings as radio and television stations, advertising and public relations agencies, local industries and civic organizations, state and local governments, and individually designed situations. (See “Internships.”)

ENGL 402 SEMINAR IN FICTION (3) *Prerequisite: ENGL 220.* This study of fiction as a genre emphasizes the process of reading and interpreting novels and short stories and the development of the genre.

ENGL 403 SEMINAR IN POETRY (3) *Prerequisite: ENGL 220.* This study of poetry as a genre emphasizes the process of reading and interpreting poems and the means by which a poem creates its meaning.

ENGL 404 SEMINAR IN DRAMA (3) *Prerequisite: ENGL 220.* This study of the genre of drama emphasizes the interpretation of the various types of plays from different periods as well as related dramatic criticism.

ENGL 405 MAJOR AUTHOR(S): PERIOD A (3) *Prerequisite: ENGL 220.* Content varies. The focus is typically on one or two major writers of the given time period. Classes are conducted as seminars.

ENGL 407 MAJOR AUTHOR(S): PERIOD B (3) *Prerequisite: ENGL 220.* Content varies. The focus is typically on one or two major writers of the given time period. Classes are conducted as seminars.

ENGL 408 MAJOR AUTHOR(S): PERIOD C (3) *Prerequisite: ENGL 220.* Content varies. The focus is typically on one or two major writers of the given time period. Classes are conducted as seminars.

ENGL 414 CHILDREN'S LITERATURE (3) *Prerequisites: ENGL 111-112.* This advanced course is designed for classroom teachers and librarians or administrators wishing to extend their knowledge of literature available for children and to understand the criteria for evaluating books. Emphasis is on integrating trade books with all aspects of the curriculum in the modern school. Note: This course does not count for credit for the English major or minor.

ENGL 417 CHAUCER (3) [A] *Prerequisite: ENGL 220.* This course introduces students to the range of works by the poet Geoffrey Chaucer (c. 1343-1400), as well as the cultural context in which he lived. The course explores the poet's longer narrative works, including the *Canterbury Tales*, and a sampling of his prose and short lyrics with emphasis on the impact of Chaucer's writings on modern audiences. All texts are available in translation.

ENGL 420 SENIOR SEMINAR IN ENGLISH (3) [Theory] *Prerequisite: ENGL 220.* Focusing on literary texts, the course gives seniors a chance to use knowledge of literary history, form, and technique, as well as expertise in writing and interpretation, to read, analyze, discuss, and write about literature.

ENGL 421-422 SHAKESPEARE I, II (3, 3) [A] *Prerequisites: ENGL 201 or 202 and ENGL 220.* English 421 provides an in-depth study of the best known tragedies and most important English history plays by Shakespeare. Some attention is given to major critical approaches and background material. English 422 focuses on the romantic comedies, the problem plays, and the romances. References are made to plays studied in 421, but 421 is not a prerequisite.

ENGL 424 ADVANCED CREATIVE WRITING (3) *Prerequisites: Two of the following: ENGL 346, 349, 350.* This course includes advanced study of craft in published and student work. Students complete a portfolio of revised creative writing and learn about the current strategies and trends of creative writing engagement, including publication.

ENGL 445 ADVANCED CREATIVE WRITING: FICTION (3) *Prerequisite: ENGL 350.* Students advance their abilities to write and revise fiction by studying model texts, editing each other's writing, and completing a portfolio of polished fiction. Students will refine their abilities in fictional techniques and choices, and topics may include a variety of fictional forms.

ENGL 446 ADVANCED CREATIVE WRITING: NON-FICTION (3) *Prerequisite: ENGL 346.* This course focuses on writing and revising a portfolio or series of nonfiction works, with workshop discussion advancing concepts and practices of revision. In addition to writing, workshop discussion, and revision, course content will include outside reading that demonstrates a breadth of formal and aesthetic styles. The student will demonstrate competence in writing literary nonfiction in a range of forms that may include both traditional and innovative structures.

ENGL 447 ADVANCED CREATIVE WRITING: POETRY (3) *Prerequisite: ENGL 349.* Students advance their abilities to write and revise poetry by studying model poems and texts about poetry, editing each other's writing, and completing a portfolio of polished work. Students refine their abilities in poetic technique and choices, and topics may include a variety of poetic forms, lyrical prose, translation, and creating a body of work such as a linked sequence or chapbook.

ENVIRONMENTAL SCIENCE COURSES (ENVS)

ENVS 101-102 EARTH AND ENVIRONMENTAL SCIENCE I, II (3, 3) *Corequisite: ENVS 101L-102L.* Three hours lecture. This course sequence offers an interdisciplinary introduction to the scientific study of the earth's physical and biological systems with an emphasis on environmental changes and their implications.

ENVS 101L-102L EARTH AND ENVIRONMENTAL SCIENCE LABORATORY I, II (1, 1) *Corequisite: ENVS 101-102.* Three hours laboratory to accompany ENVS 101-102.

ENVS 201 HISTORY OF EARTH AND LIFE (4) *Prerequisites: ENVS 101/101L-102/102L.* This course provides an overview of the Earth's composition, structure, and the geologic processes that continually shape the planet. Special attention will be given to rocks, minerals, plate tectonics, and the history of the geology. The biological evolution of life on Earth will be studied by examination of fossils and the fossil record.

ENVS 211 PHYSICAL GEOGRAPHY (3) Three hours lecture. This course provides a broad natural science background for students. The interrelationship of the lithosphere-hydrosphere-atmosphere, climate-soil-vegetation, and landforms of the world bring into perspective observable natural phenomena.

ENVS 238 INTRODUCTION TO RESEARCH (1-3) *Prerequisite: Consent of supervising instructor.* This course provides the beginning student the opportunity to conduct lab, field, or library research under the supervision of a faculty member. Credit is dependent upon the scope of the work.

ENVS 321 CONSERVATION ECOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. This course addresses biological diversity at the genetic, population, and species levels. In particular, human impacts on diversity are investigated, and practical approaches to understanding and preventing extinction are explored. In addition, the mechanisms underlying large-scale ecological processes and their changes across space and time are examined, with the relationships among landscape structure, resource distributions, and populations also studied.

ENVS 324 SUSTAINABLE FOREST MANAGEMENT (4) *Prerequisites: satisfactory completion of the following: BIOL 113 or ENVS 101/101L and 102/102.* This course teaches the principles and techniques of forest management from both economic and environmental standpoints. Students will be trained in silviculture, dendrology, and timber cruising and harvesting during lectures, labs, and field trips. Topics related to timber harvesting such as watershed management, wildlife conservation, rangeland management, global climate change, and outdoor recreation will also be explored. The importance of managing forests so that they do not become depleted will be the overriding theme of the course.

ENVS 331 PRINCIPLES OF HYDROLOGY (4) *Prerequisites: CHEM 111, MATH 103.* Three hours lecture and three hours laboratory. This course is a study of the principles and theory of surface water and groundwater flow, chemistry, and quality; understanding and determination of water budget, hydrologic cycle, and Darcy's law; social, political, and economic issues related to hydro-logical systems.

ENVS 333 PHYSICAL OCEANOGRAPHY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. This course focuses on ways in which oceans function and interact with earth systems. Consideration is given to ocean currents and vertical mixing, water chemistry, heat and energy transfer, sea floor geology, and coastal processes.

ENVS 336 PHYSICAL GEOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/ 101L-102/102L, or permission of instructor.* Three hours lecture and three hours laboratory. This course is a study of the earth's structure, composition, surface features and processes, rocks, minerals, mountain building, volcanoes, earthquakes, and the weathering and erosional effects of wind, water, and ice.

ENVS 337 HISTORICAL GEOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. This course looks through the earth's past through the record hidden in the rocks and the fossils contained within and includes a study of the development of life on earth as well as the climate and geologic changes of the earth's surface from the Precambrian until the present.

ENVS 338 ENVIRONMENTAL GEOLOGY (4) Three hours lecture and three hours laboratory. This course is a systematic study of processes that operate at or near earth's surface and influence the development, preservation, and destruction of natural environments. Topics covered include the influence of fluvial, atmospheric, mass-wasting, glacial, volcanic and tectonic systems on the environment. Mitigation strategies to prevent environmental degradation will be discussed.

ENVS 340 REMOTE SENSING (2) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. One-half semester modular course paired with another related half-semester modular course. Fundamental principles of remote sensing from satellites and other sources for environmental science are examined in this course.

ENVS 345 METEOROLOGY (3) *Prerequisites: ENVS 101/101L-102/102L.* This class investigates the structure, components and processes of the earth's atmosphere. Global circulation patterns, precipitation, tropical systems, severe weather events, and air pollution issues are all studied. Understanding how to analyze and produce weather forecasts will be emphasized.

ENVS 347 CLIMATOLOGY (3) *Prerequisites: ENVS 101/101L-102/102L.* This course explores how the atmosphere, oceans, and land masses all interact to influence earth's climate. Various local climates on our planet will be studied along with influencing factors such as latitude, topography, land-water interactions, and air and ocean circulation. A special emphasis will be placed on understanding both short- and long-term natural climate changes, and how humans might influence such variability.

ENVS 365 WETLANDS (4) *Prerequisites: ENVS 101/101L-102/102L.* This course provides an overview of the general ecology, hydrology, vegetation types, wildlife habitats, biogeochemistry, and conservation issues of wetlands. Special attention will be given to the legal and mitigation issues surrounding wetland conservation and preservation.

ENVS 375 FRESHWATER ECOLOGY (4) *Prerequisites: BIOL 113-114 or ENVS 101/101L-102/102L.* Three hours lecture and three hours laboratory. This course focuses on the physical, chemical, and biological properties of the freshwater environment. A special emphasis will be placed on studying anthropogenic impacts on aquatic habitats and their organisms.

ENVS 377 STUDY ABROAD (3) This course provides students with the opportunity to study principles of environmental science in foreign settings.

ENVS 380 GEOGRAPHIC INFORMATION SYSTEMS (GIS) (4) *Prerequisite: Junior/ senior standing.* Three hours lecture and three hours laboratory. This course introduces students to the theory and practice of Geographic Information Systems (GIS) and prepares them for its use across numerous fields of study. Geographic Information Systems (GIS) is specially designed hardware and software for the analysis and display of spatially explicit data. With intelligent digital maps, such systems allow users to store, query, and retrieve information based on desired parameters.

ENVS 397 INDEPENDENT STUDY IN ENVIRONMENTAL SCIENCE (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

ENVS 398 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCE (1-4) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

ENVS 399 INTERNSHIP IN ENVIRONMENTAL SCIENCE (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* This internship is offered to qualified students allowing them to gain personal and practical experience in various areas of environmental science. Internships include but are not limited to working in environmental laboratories, natural resources conservation, restoration of natural areas, and help with research projects conducted by senior scientists and engineers.

ENVS 428 INDIVIDUAL RESEARCH IN ENVIRONMENTAL SCIENCE (1-6) *Prerequisites: Junior or senior standing; consent of supervising instructor.* This independent opportunity to conduct a field, laboratory, or literary study project culminates in a formal paper and/or presentation as directed by the supervising instructor. Credit is dependent on the nature of the work but may not exceed three credit hours per semester.

ENVS 490 ENVIRONMENTAL SCIENCE SEMINAR (1) *Prerequisite: Senior Standing.* This seminar is intended as a capstone course and provides an opportunity for students to study a range of biological questions presented by outside speakers. Additionally, students' communication skills are assessed through oral presentations on internships or individual research projects, as well as other topics.

ENVIRONMENTAL STUDIES COURSES (ENST)

ENST 210 PEOPLE AND THE ENVIRONMENT (3) *Prerequisites: ENVS 101/101L-102/102L.* This course provides an introduction to the various dimensions of human interaction with the environment

and natural resources. Topics include environmental management, economics, law, policy, and global issues, as well as environmental education, communication, recreation, eco-tourism, values, and ethics.

ENST 238 INTRODUCTION TO RESEARCH (1-3) *Prerequisite: consent of supervising instructor.* This course provides the beginning student the opportunity to conduct lab, field, or library research under the supervision of a faculty mentor. Credit is dependent on the scope of the work.

ENST 350 ENVIRONMENTAL LAW AND POLICY (4) *Prerequisites: ENVS 101/101L-102/102L.* This course provides an introduction to the laws and policies governing pollution, hazardous wastes, the use of natural resources, etc. Environmental policy formulation and implementation and the role of the judicial system will be topics of focus.

ENST 360 SUSTAINABLE LIVING (4) *Prerequisites: ENVS 101/101L-102/102L.* This course examines the impact of personal and collective choices on natural resources and the sustainability of communities. Integration of service learning opportunities allows student teams to extend course principles to the local community.

ENST 370 ENVIRONMENTAL MANAGEMENT (4) *Prerequisites: ENVS 101/101L-102/102L.* This course is a survey of management techniques and topics in the environmental field. Land use planning and ecosystem management are emphasized.

ENST 377 STUDY ABROAD (3) This course provides students with the opportunity to study principles of environmental science in foreign settings.

ENST 397 INDEPENDENT STUDY IN ENVIRONMENTAL STUDIES (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

ENST 398 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

ENST 399 INTERNSHIP IN ENVIRONMENTAL STUDIES (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* This internship is offered to qualified students, allowing them to gain personal and practical experience in various areas of the environmental field. Internships include but are not limited to working in environmental laboratories, natural resources conservation, environmental law and policy, restoration of natural areas, and help with research projects conducted by senior researchers.

ENST 428 INDIVIDUAL RESEARCH IN ENVIRONMENTAL STUDIES (1-6) *Prerequisites: Junior or Senior Standing; consent of supervising instructor.* This independent opportunity to conduct a field, laboratory, or literary study project culminates in a formal paper and/or presentation as directed by the supervising instructor. Credit is dependent on the nature of the work but may not exceed three credit hours per semester.

ENST 480 CAPSTONE COURSE IN ENVIRONMENTAL STUDIES (3) *Prerequisites: ENVS 101/101L-102/102L, junior or senior standing.* This course serves as the capstone course for the Environmental Studies major. A current environmental issue will be chosen for in-depth study from various perspectives (policy, economics, sociology, history, science, etc.).

EXERCISE PHYSIOLOGY COURSES (EXPH)

EXPH 100 PHYSIOLOGICAL ASSESSMENTS IN EXERCISE PHYSIOLOGY (3) This hands-on course is designed to teach the exercise physiology major about tests used to assess health and skill related physical fitness. Students will learn how to conduct and participate in various assessments of physical fitness. Course fee is required.

EXPH 200W EXPLORATION IN EXERCISE PHYSIOLOGY [Writing Enriched] (3) *Prerequisites: ENGL 111W-112W or ENGL 223W; pre or corequisite: EXPH 100.* This course will examine the numerous career opportunities that exist in the field of Exercise Physiology, how they relate to the field of study, and what are the qualifications and certifications needed to pursue a career in the specific sub-disciplines of Exercise Physiology. This course will also focus on techniques regarding reading and locating research as well as incorporate scientific writing techniques about different topics within exercise physiology.

EXPH 225 BASIC EMERGENCY AND INJURY CARE MANAGEMENT (3) This course is designed to introduce students to basic orthopedic injuries, conditions, and disorders. In addition, students will learn basic emergency management. Course fee required.

EXPH 325 PHYSIOLOGY OF EXERCISE (3) *Prerequisites: BIOL 222/222L, 223/223L.* This course studies the human body's short term and long term adjustments to exercise. Topics include: musculoskeletal function, energy metabolism, respiratory adjustments, heart and circulatory adjustment, neural control, temperature regulation, environmental effects, and conditioning principles.

EXPH 326 ADVANCED PHYSIOLOGY OF EXERCISE (3) *Prerequisite: EXPH 325.* This course is designed to provide students with an in-depth study of physiological and biochemical alterations occurring in the human body as a result of exercise. Topics will include control of bioenergetics, exercise metabolism, acute and chronic adaptations to aerobic and resistance training programs, physiology of performance, environmental effects, hormonal responses, and temperature regulation.

EXPH 330 ASSESSMENT AND TREATMENT OF GENERAL MEDICAL CONDITIONS (3) *Prerequisite: EXPH 325.* This course is designed to provide students with the knowledge and skill necessary to recognize and treat a variety of systemic pathologies.

EXPH 342 LABORATORY TECHNIQUES IN EXERCISE PHYSIOLOGY (3) *Prerequisites: EXPH 325, MATH 222.* This course provides students with the opportunity to learn the techniques used in laboratories to test the physiological changes in response to acute and chronic exercise. Students will be required to utilize their knowledge of the underlying physiology and the responses to exercise in order to accurately examine and explain the observations.

EXPH 355 SCIENTIFIC PRINCIPLES OF STRENGTH AND CONDITIONING (3) *Prerequisite: EXPH 325.* This course provides students with the scientific principles and practical skills to develop and adjust conditioning programs. Students learn how to design conditioning programs to address strength, power, speed, agility, and endurance needs. Students also learn how to adjust programs for those with special needs (e.g. injuries) so programs can be safe and effective.

EXPH 370 SPORTS NUTRITION (3) *Prerequisite: EXPH 325.* This course will discuss macronutrient and micronutrient needs in relation to physical activity. Additional topics include ergogenic aids and the timing of food and fluids before, during, and after physical activity for optimal performance.

EXPH 380 KINESIOLOGY (3) *Prerequisites: BIOL 222/222L, 223/223L.* This course is a study of the origin, mechanics, and effectiveness of human motion.

EXPH 382 EXERCISE PHYSIOLOGY OF SPECIAL POPULATIONS (3) *Prerequisites: EXPH 326, 342.* This course is designed to discuss physiological differences in populations such as children and youth, older adults, pregnant women as well as populations with diseases such as heart disease, pulmonary disease, obesity, and diabetes and the modifications required for exercise testing and prescription of these populations.

EXPH 397 INDEPENDENT STUDY IN EXERCISE PHYSIOLOGY (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

EXPH 398 SPECIAL TOPICS IN EXERCISE PHYSIOLOGY (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline

not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

EXPH 415 INTERNSHIP IN EXERCISE PHYSIOLOGY (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; EXPH 326, 342; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This course offers a professional internship with an appropriate health fitness organization/program. The student and faculty sponsor agree on the location and responsibilities of the intern. The number of credits depends on the number of hours involved. (See “Internships.”)

EXPH 425 ADVANCED HEALTH AND FITNESS EVALUATION AND PROGRAMMING (3) *Prerequisites: EXPH 326, 342.* This course provides the student with the knowledge and skills necessary for risk stratification, physiological assessment, interpretation of test results, and design of health and activity programs for apparently healthy populations. Emphasis on developing competency in following ACSM guidelines for exercise testing and prescription will be stressed.

EXPH 450 RESEARCH METHODS IN EXERCISE PHYSIOLOGY (3) *Prerequisites or corequisites: EXPH 326, 342.* This course is a capstone designed to teach students the research process as it pertains specifically to exercise physiology. Students will be expected to utilize their knowledge of exercise physiology in the discussion of how to conduct quality research, how to critique current relative research in the profession, and how to summarize research for understanding by the lay population. Students must complete this course with a C or better and have IRB approval of a research proposal if they choose take EXPH 451 as an elective.

EXPH 451 RESEARCH METHODS IN EXERCISE PHYSIOLOGY: DATA COLLECTION AND FINAL MANUSCRIPT (2) *Prerequisite: EXPH 450 (C or better) and IRB approval of a research proposal.* This course is an elective second research course designed for students to complete a research project that has already been proposed and approved by the Institutional Review Board. Students will integrate their knowledge of exercise physiology as well as their skills and mastery at performing a myriad of assessments to collect data, analyze results, and write a final manuscript according to professional guidelines. The course will culminate with the student presenting their research at the Student Scholar Showcase or an equivalent forum approved by the instructor.

FINANCE COURSES (FIN)

FIN 150 FAMILY AND PERSONAL FINANCE (3) This functional course is designed to meet the needs of individuals and married couples in their attempt to save, invest, and spend wisely. Primary emphasis is placed on buying a house, appropriate life insurance policies, and investing in the stock market.

FIN 317 PRINCIPLES OF FINANCE (3) *Prerequisites: ACCT 201, ECON 201-202, and General Education Math.* Course examines basic financial principles involving procurement, allocation, and control of funds of the business firm. Topics include maximizing shareholder wealth, time value of money, stock and bond valuation, risk and expected return, capital budgeting, and financial statement analysis. This first of two case-based courses introduces the broad range of concerns in managerial finance. Topics include ratio analysis, projection of funds requirements, working capital management, lending relationships, capital budgeting, and long-term capital structure. Case analysis allow students to acquire basic skills and perspectives in each area.

FIN 318 FINANCIAL MANAGEMENT (3) *Prerequisite: FIN 317.* This course applies basic financial techniques and principles to financial administration, policy, and decision-making of the firm. This course also examines ethical issues involved in financial administration, policy, and decision-making. The case-study method is used. A continuation of FIN 317. Through case analysis and discussion, students will gain increased sophistication in their knowledge and application of managerial models relevant to the topics covered in the Principles of Finance. The course will also introduce in-depth material in the areas of capital market behavior, mergers, acquisitions, divestitures, and international finance.

FIN 397 INDEPENDENT STUDY IN FINANCE (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

FIN 398 SPECIAL TOPICS IN FINANCE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

FIN 405 INVESTMENT FUNDAMENTALS (3) *Prerequisites: ECON 201-202, FIN 317.* This course studies the economic, fundamental, and technical analysis of financial securities and their use in achieving investment objectives. The course focuses on assessing the risks and returns offered by the major classes of financial securities and their derivatives; the assessment of intrinsic versus market values; the construction of portfolios for different purposes and basic portfolio management practices; and the mechanics of participation in securities markets.

FRENCH COURSES (FREN)

All students entering the 102, 201 and 202 language levels will be required to take a placement test. The results of this test will determine the highest level of the language in which a student may enroll: i.e. 0-24 = FREN 101, 25-40 = FREN 102, 41-52 = FREN 201 and 53-56 = FREN 202. Class level placement is also based upon the successful completion of the prerequisite language course at the college level, earned AP credit or by consent of the instructor.

To waive the general education requirement for FREN 201, students must score 53 or above and pass an additional evaluation that includes an oral interview and a written component.

Work in the MLRC constitutes part of the elementary and intermediate language courses. It is designed to furnish peer language tutors for review and to teach and test listening comprehension and speaking skills, the components of which are auditory discrimination, auditory memory, pronunciation and fluency.

For students whose native language is not English, the foreign language Gen Ed requirement may be waived using the substitution waiver form based on passing an acceptable proficiency in speaking and writing in the native language.

FREN 101-102 ELEMENTARY FRENCH I, II (3,3) This course sequence introduces four language skills in French: listening comprehension, speaking, reading, and writing with emphasis on basic grammar and oral proficiency. Work in the language laboratory is required.

FREN 201 INTERMEDIATE FRENCH (3) *Prerequisites: FREN 101-102.* (Each student's level is determined by a placement test that is given at the beginning of the course.) This course provides a review of grammar and intensive reading and conversational practice emphasizes the speaking of French. This course should bring students to the novice high/intermediate low oral proficiency level (ACTFL Guidelines). Work in the language laboratory is required.

FREN 202 INTERMEDIATE FRENCH (3) *Prerequisite: FREN 201.* This review of grammar and intensive reading practice of French is based on selected literary and civilization texts. Work in the language laboratory is required.

FREN 203-204 FRENCH INTERMEDIATE CONVERSATION (3, 3) *Prerequisites: FREN 101-102, or the equivalent; pre or corequisite: FREN 201.* This course sequence involves the spoken use of practical, day-to-day French.

FREN 207 FRENCH LITERATURE IN TRANSLATION I (3) With readings and lectures entirely in English, this course covers French writers from the Middle Ages through the eighteenth century. Representative works and writers include the "Song of Roland," "Tristan and Yseult," Montaigne, Pascal, Moliere, Corneille, Racine, Voltaire, and Rousseau.

FREN 208 FRENCH LITERATURE IN TRANSLATION II (3) With readings and lectures entirely in English, this course covers French writers from the nineteenth and twentieth centuries. Writers include: Balzac, Maupassant, Flaubert, Proust, Camus, and Sartre.

FREN 221-222 ADVANCED LANGUAGE PRACTICE (3,3) *Prerequisite: FREN 202.* This course sequence provides intensive practice in oral and written French to develop fluency and correctness of expression. Special emphasis is on vocabulary building, development of style, and cultural awareness.

FREN 241-242 CONVERSATION AND COMPOSITION (3,3) *Prerequisite: FREN 202.* This

course sequence provides intensive practice in oral and written French to develop fluency and correctness of expression. Special emphasis is on vocabulary building and development of style. The course will use a political and historical approach to French cultural topics and include an introduction to French literature and literary criticism.

FREN 277 **STUDY ABROAD (3)** *Prerequisite: consent of instructor.* This course, offered in a francophone country, involves intensive French instruction in oral communication, civilization, culture, and language. This course is open to all students with consent of instructor; no prior knowledge of French is required.

FREN 300 **THE CULTURE AND CIVILIZATION OF FRANCE: 400BC -1789 (3)** *Prerequisite: French 202 for French majors and minors or **no prerequisite but simply consent of instructor for those taking this course as an elective.* This broad introduction to French culture and civilization focuses on the significant historical events, political movements, philosophic schools, and social phenomena which contributed to the formation of France and French culture. Through a careful analysis of geographic, economic, cultural, and political phenomena, the evolution of the French state and its people from the beginnings of Celtic tribal culture to the dominant intellectual, artistic, political, and cultural nation of the Enlightenment period of the 18th century will be studied. Please note that any term in which there are non-French majors and minors enrolled in this course it would be taught in English (to attract a broader target public). In this case only French majors, minors, and specialists (and those who so desire) would perform all their written work in French.

FREN 310 **FRENCH CIVILIZATION IN FRENCH FILM (3)** *Prerequisite: Consent of instructor.* This course explores through French film events in French history that have most influenced France and francophone countries and current social issues. Content includes history of the technologies that led to the development of film projection as the “septième art”. The unique cultures of the French speaking world are presented through the classic and contemporary films of various genres. Providing the terminologies of French film and elements of film production will give students the tools necessary to make informed critiques.

FREN 311-312 **SURVEY OF FRENCH LITERATURE (3,3)** *Prerequisite: FREN 222, 242.* This course sequence focuses on readings in French covering the Middle Ages through the eighteenth century.

FREN 313-314 **SURVEY OF FRENCH LITERATURE (3,3)** *Prerequisite: FREN 222, 242.* This course focuses on readings in French from the nineteenth and twentieth centuries.

FREN 333-334 **CONTEMPORARY FRENCH LITERATURE (3,3)** *Prerequisite: FREN 222, 242.* In this course, sequence readings focus on the works of Proust, Gide, Valéry, Alain, Sartre, Camus, Claudel, and others. Surrealism and existentialism are discussed.

FREN 377 **STUDY ABROAD (3)** *Prerequisite: Consent of instructor.* This course, offered in a francophone country involves intensive French instruction in oral communication, civilization, culture, and language.

FREN 389-390 **BUSINESS FRENCH (3,3)** *Prerequisite: Consent of instructor.* A survey of business concepts in France, this course is approached both in terms of study of daily French business practices and as training in vocabulary skills to permit such study. Most standard aspects of commerce in France are covered.

FREN 397 **INDEPENDENT STUDY IN FRENCH (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

FREN 398 **SPECIAL TOPICS IN FRENCH (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

FREN 399 INTERNSHIP IN FRENCH (1-6) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* Students may earn college credit for participation in an internship with a business firm, a government agency, or a private non-profit organization; jointly supervised by the program and the responsible organization administrator. The internship is expected to provide the student with an opportunity to apply, in a practical way, some of the language skills acquired in the study of French. (See “Internships.”)

FREN 470 METHODOLOGY OF TEACHING SECOND LANGUAGES (3) *Prerequisite: Junior or senior status.* This course is designed for students interested in teaching French, Spanish or English as a second language (ESL). The course provides a thorough introduction to contemporary theories of second language acquisition, methods of language teaching and assessment, and current issues in second language teaching. Additional work will be required for graduate credit.

FREN 475-476 SEMINAR IN FRENCH (3,3) This capstone course sequence is required of all French majors. The first semester focuses on stylistic, advanced translation, and aspects of literary criticism, based on knowledge acquired in previous course work. In the second semester students will be prepared to present orally and in writing a portfolio of their work, including a senior thesis to be written and defended in French.

GENDER STUDIES COURSES (GNDR)

GNDR 210 INTRODUCTION TO GENDER STUDIES (3) *Prerequisite: HIST 101-102.* This course introduces students to gender theories as they emerge in a wide variety of disciplines, with an emphasis on gender as a social construction.

GNDR 397 INDEPENDENT STUDY IN GENDER STUDIES (1-3) *Prerequisite: Approval of faculty sponsor and school dean: junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May not be repeated.

GNDR 410 GENDER STUDIES CAPSTONE PROJECT (3) *Prerequisites: GNDR 210 and nine hours of Gender Studies approved coursework.* Students will apply appropriate theoretical models in gender studies in a research project that will demonstrate understanding of that application’s usefulness as well as its limitations. The project will be evaluated by a committee (the “Research Committee”) consisting of the director of gender studies, the research advisor (in the student’s field of interest), as well as one other committee member selected by the student.

GENERAL STUDIES COURSES (G S)

G S 100 FRESHMAN SUCCESS SEMINAR (1) This seminar is designed to help freshmen make a successful transition to Lynchburg College. Emphasis is placed on educating new students about campus policies and resources as well as helping new students make sound decisions relative to their academic and co-curricular lives. Specific topics addressed include goal-setting, time management, and working with advisors and other faculty members.

G S 104 COLLEGE SUCCESS STRATEGIES (1) This support course teaches the skills and strategies, and encourages the attitudes a student needs to achieve the academic goals the College set forth for its students as part of its mission. Goal-setting, time management, note-taking, active reading, and other important study skills and strategies are addressed. The course also provides students with opportunities for self-reflection and development of decision-making strategies to help them make a smoother transition into college. Attention is also devoted to student understanding of basic academic rules and regulations.

G S 105 CAREER DEVELOPMENT FOR THE LIBERAL ARTS AND SCIENCES (1) Open only to freshmen and sophomores, this course introduces students to the career-decision making process through self-assessment, major/career exploration, and the integration of this information into career fields. Particular emphasis is given to the use of the Internet as a resource for career exploration.

G S 111 **APPLIED INFORMATION LITERACY – BASIC 1 (1)** This course provides an introduction to information retrieval skills needed for successful research and critical analysis of information in the scholarly setting as well as everyday life activities. Topics covered will include types of information and classification schemes, basic library research skills, and strategies for finding monographic resources in Knight-Capron Library.

G S 112 **APPLIED INFORMATION LITERACY – BASIC 2 (1)** This course introduces the student to types of information found in the periodical literature and their application to scholarly activities and life-long learning situations. In addition to exploring different types of periodicals, print and electronic indexes that are used to locate appropriate resources will also be covered. The course will provide an introduction to the issue of plagiarism and how to avoid it.

G S 113 **RESEARCH STRATEGIES FOR COLLEGE PAPERS AND PRESENTATIONS (1)** This course is designed to develop critical thinking skills when using Internet information resources for academic course work. Search strategies, topic analysis, Boolean logic, and refinement of searching techniques are among the areas covered as they apply to available online databases and Web search engines. In addition to improving students' Internet skills, the course develops a better understanding of how and when to use electronic resources.

G S 135 **FRESHMAN SYMPOSIUM (1-3)** This course is designed to link with existing General Education courses to create a learning community. Interdisciplinary in nature, the course uses collaborative learning processes to explore a variety of topics that enrich the General Education offerings to which they are linked. Specific topics vary based on faculty interests and current issues.

G S 150 **EFFECTIVE READING STRATEGIES (1)** This course is designed to provide instruction and support to enable individuals to comprehend complex college readings. The course provides instruction in research-based strategic reading strategies found to improve reading success along with individual or small group tutoring sessions for support in applying strategies.

GS 151 **EFFECTIVE WRITING STRATEGIES (1)** This course will provide instruction and support to enable students in comprehending essential writing skills including grammar/mechanics, content, and organization. The course will utilize a textbook that covers standard English and writing instruction.

GS 152 **COLLEGE MATH (1)** This course introduces students to college mathematics. Essential quantitative and algebraic concepts and skills are introduced and reinforced.

G S 201 **PEER TUTORING/MENTORING SEMINAR (1)** This course is based on a theoretical framework of peer-based tutoring, mentoring, and advising coupled with direct application through learning resource services, the LC Connections program, and academic/career advising. The learning format combines a weekly one-hour seminar with a weekly one-hour session of direct tutoring, mentoring, and/or advising.

G S 220 **EXPLORING SOCIAL ENTREPRENEURSHIP AND LEADERSHIP (1)** The course will explore what it means to be a social entrepreneur in a wide variety of fields. Guest lecturers will include entrepreneurs working in non-profit and for-profit settings who will discuss their personal experiences as leaders and entrepreneurs, and describe the qualities they feel are necessary for students to become effective leaders and successful entrepreneurs.

G S 277 **STUDY ABROAD: CROSS-CULTURAL EXPLORATIONS (1)** This course prepares students to participate in an international, cross-cultural experience. Students will address issues related to the cultural and practical side of international travel.

G S 293 **APPLIED INFORMATION LITERACY – ADVANCED (1)** This course focuses on the development and practical application skills necessary to find and evaluate efficiently a wide variety of information sources for major term papers, presentations and other student research courses, including the senior theses. It is designed to be taken concurrently with a course that involves a substantial student research project with the approval of the course professor. As the content is based on the nature of the specific research project, this course may be repeated in conjunction with additional research projects.

G S 305 ADVANCED CAREER DEVELOPMENT: PLANNING FOR YOUR FUTURE

(1) Open to upperclassmen, this course will assist students in planning their entry into the world of work, creating resumes and cover letters, developing interviewing and networking skills, and exploring graduate/professional school and other options. Particular emphasis will be placed on activities that develop skills which will enhance the initial stage in one's career.

G S 330 LEADERSHIP IN ACTION PRACTICUM (3) *Prerequisites: Must complete at least six credit hours from BUAD 222, 265, and MGMT 260.* This course provides a capstone experience for students pursuing the Leadership minor. In accordance with the College's strategic emphasis on experiential learning, students will apply leadership principles in a variety of real-world settings while under the guidance of an academic advisor. In the course of this experience, they will develop their own personal leadership style and demonstrate leadership action through the initiation or support of an organizational initiative.

G S 360, 361 WASHINGTON CENTER SEMINARS (2,3) *Prerequisite: Students in good academic standing with consent of faculty sponsor.* Washington Center seminars provide short-term programs in which participants explore selected topics in depth. Students attend lectures and participate in panel discussions and small group discussions. Past topics have included international relations, business, politics, law, leadership, women's issues, and communication. Evaluation is based on participation, journal entries, and written work. Grades are determined cooperatively by the Washington Center and faculty sponsor. G S 360 involves a seven- to nine-day program granting two credits; G S 361 involves a twelve- to fifteen-day program granting three credits.

G S 377 STUDY ABROAD (3) *Prerequisite: Permission of instructor.* This course provides students with foreign study and travel experience. The course develops multiple perspectives, including, but not limited to, cultural, economic, historical, and political.

G S 397 INDEPENDENT STUDY IN GENERAL STUDIES (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

G S 398 SPECIAL TOPICS IN GENERAL STUDIES (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

G S 399 INTERNSHIP IN GENERAL STUDIES (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, supervising faculty, and associate dean prior to registration.* This internship is career-focused and bridges more than one academic discipline. (See "Internships.")

G S 415 SOCIAL ENTREPRENEURSHIP INTERNSHIP (1-6) *Prerequisite: G S 220.* Students will work as interns in the community at non-profit organizations or develop socially responsible initiatives in the community for non-profit organizations. This class will also serve as an opportunity for students to receive credit for developing their own non-profit programming. Many students will have previously observed and interacted with a variety of social entrepreneurs, determined the qualities that are common to them, and explored their own inclinations and capabilities as social entrepreneurs in the prerequisite class.

G S 435W SENIOR SYMPOSIUM [Writing Enriched] (2) *Prerequisites: ENGL 111W-112W or ENGL 223W.* Open only to second-semester juniors and seniors, this course provides a consideration of major issues affecting mankind in the perspective of total experience. The course has three components: lectures by leaders of thought and opinion (including visiting scholars, public officials, artists, and business and professional people); selections from classical readings; and discussion seminars covering a variety of topics.

GERMAN STUDIES COURSES (GRMN)

All students entering the 102, 201 and 202 language levels will be required to take a placement test. The

results of this test will determine the highest level of the language in which a student may enroll: i.e. 0-24 = GRMN 101, 25-40 = GRMN 102, 41-52 = GRMN 201 and 53-56 = GRMN 202. Class level placement is also based upon the successful completion of the prerequisite language course at the college level, earned AP credit or by consent of the instructor.

To waive the general education requirement for GRMN 201, students must score 53 or above and pass an additional evaluation that includes an oral interview and a written component.

Work in the MLRC constitutes part of the elementary and intermediate language courses. It is designed to furnish peer language tutors for review and to teach and test listening comprehension and speaking skills, the components of which are auditory discrimination, auditory memory, pronunciation and fluency.

For students whose native language is not English, the foreign language Gen Ed requirement may be waived using the substitution waiver form based on passing an acceptable proficiency in speaking and writing in the native language.

GRMN 101-102 ELEMENTARY GERMAN I, II (3, 3) Study of the fundamentals of German grammar. Emphasis on oral expression. Work in the Modern Language Resource Center (MLRC) constitutes part of the course.

GRMN 201 INTERMEDIATE GERMAN (3) *Prerequisites: GRMN 101-102.* (Each student's level is determined by a placement test administered at the beginning of the course.) This course is a review of grammar and intensive reading and conversational practice with emphasis on speaking German. This course should bring students to the novice high/intermediate low oral proficiency level (ACTFL Guidelines). Work in the Modern Language Resource Center (MLRC) is required.

GRMN 202 INTERMEDIATE GERMAN II (3) *Prerequisite: GRMN 201.* This review of grammar and intensive reading and conversational practice is based on selected literary and civilization texts. Work in the Modern Language Resource Center (MLRC) is required.

GRMN 208 GERMAN LITERATURE IN TRANSLATION (3) With readings and lectures entirely in English, this course covers German writers from the nineteenth and twentieth centuries. Writers include Heine, Hauptmann, Kafka, Grass, Mann, Brecht, etc.

GRMN 241 CONVERSATION AND COMPOSITION (3) *Prerequisite: GRMN 202.* This course provides intensive practice in oral and written German to develop fluency and correctness of expression. Special emphasis is on vocabulary building and development of style. The course will use a political and historical approach to German cultural topics and include an introduction to German literature and literary criticism.

GRMN 313 SURVEY OF GERMAN LITERATURE (3) *Prerequisite: GRMN 241.* This course focuses on readings of original texts in German literature from the nineteenth and twentieth century.

GRMN 397 INDEPENDENT STUDY IN GERMAN (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

GRMN 398 SPECIAL TOPICS IN GERMAN (1-3) [credit depends on topic] *Prerequisites: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

HEALTH AND PHYSICAL EDUCATION COURSES (HPE)

HPE 102 CONCEPTS FOR EXERCISE AND LIFETIME WELLNESS (2) This course is designed to assist students in establishing the basis for a healthy lifestyle. Emphasis is placed on the possible consequences of lifestyle choices; utilizing technology to become aware of fitness and nutrition; and how to make appropriate choices for positive changes.

HPE 105L ELEMENTARY PHYSICAL EDUCATION CONTENT LAB (1) This course addresses the development, teaching, and analysis of skills in educational dance, gymnastics, games, and skill concepts. Students will learn to design, teach, and assess learning experiences in these areas.

HPE 106L INVASION SPORT LAB I (1) This course involves the development of skill, tactics, teaching, and analysis of soccer, field hockey, team handball, and football. Students develop their skills and tactical play to a competent level and acquire the ability to teach, analyze, and assess skilled performance based on a learner's developmental level. Students will demonstrate skill and tactics in authentic environments as well as plan, instruct, and assess learners in these sports.

HPE 107L INVASION SPORT LAB II (1) This course involves the development of skill, tactics, teaching, and analysis of basketball, lacrosse, ultimate frisbee, and floor hockey. Students develop their skills and tactical play to a competent level and acquire the ability to teach, analyze, and assess skilled performance based on a learner's developmental level. Students will demonstrate skill and tactics in authentic environments as well as plan, instruct, and assess learners in these sports.

HPE 108 INTRODUCTION TO ADVENTURE ACTIVITIES (1) This course is an introduction to adventure activities as an experiential approach to developing self-confidence, trust, team building, and open communication. Activities include the low and high elements of the adventure course, climbing on rocks and walls, rappelling, caving, and orienteering.

HPE 109 COOPERATIVE AND COMPETITIVE MOVEMENT CHALLENGES (1) These instruction and problem solving activities involve participation, success, equity, and trust with emphasis on challenges that develop fitness. The purpose of the course is to emphasize success in skill performance, acceptance of other performers' abilities, and cooperation to achieve goals.

HPE 114L NET/WALL SPORT LAB This course involves the development of skill, tactics, teaching, and analysis of volleyball, tennis, badminton, and pickle ball. Students develop their skills and tactical play to a competent level and acquire the ability to teach, analyze, and assess skilled performance based on a learner's developmental level. Students will demonstrate skill and tactics in authentic environments as well as plan, instruct, and assess learners in these sports.

HPE 115L FIELDING/TARGET/FITNESS SPORT LAB (1) This course involves the development of skill, tactics, teaching, and analysis of golf, baseball, and softball as well as skills in strength training and personal fitness. Students develop their skills to a competent level and tactical play in golf, baseball, and softball to a competent level and acquire the ability to teach, analyze, and assess skilled performance based on a learner's developmental level. Students will demonstrate skill and tactics in authentic environments as well as plan, instruct, and assess learners in these sports.

HPE 120 SCUBA DIVING (1) *Prerequisite: Pass Swim test (200 yards and float/tread water for 10 minutes).* The PADI Open Water Diver course consists of three main phases: knowledge development to understand basic principles of scuba diving, confined water dives to learn basic scuba skills, and open water dives to review your skills and explore. A lab fee of \$425 required of students to cover scuba equipment, transportation, and camping fees.

HPE 125 ROCK CLIMBING AND VERTICAL ROPE WORK (1) This course is designed to provide the student with the skills and experience to enjoy the sport of rock climbing and other vertical endeavors. The focus of the course is on rope work, anchor building, rappelling, and top rope climbing. Classes will be held in the classroom, on the ropes course, on local rock faces, and in local caves.

HPE 126 CHALLENGE COURSE AND ADVENTURE TRAINING (1) This course is an overview of challenge course programming and adventure training. Classes will be taught in the classroom as well as utilizing the low and high elements of the New Horizons Adventure Course. Topics covered include group facilitation, debriefing, problem solving, initiatives, and trust building activities.

HPE 127 BASIC BACKPACKING AND HIKING (2) This course is designed to teach the basic skills and concepts of backpacking and hiking. Topics will include: camping, cooking, fire and stove use, equipment, safety, nutrition, map reading skills, first aid, trail etiquette, campsite selection, pace, tents, packing skills, and hear hand construction. Additional fee is required.

HPE 128 BASIC CANOEING AND KAYAKING (2) This course is designed to teach the basic skills and concepts of flat water canoeing and kayaking. Topics will include individual canoeing and kayaking skills such as: various strokes, safety, portaging, entering and exiting a canoe and kayak safely, map reading skills, interpreting water and weather conditions, and trip planning. Students will be required to participate in off-campus trips to the James River, Smith Mountain Lake, and/or Holiday Lake. An additional fee may be required.

HPE 129 MOUNTAIN BIKING (2) This course is designed to teach the basic skills and concepts of mountain biking. Topics will include group and individual biking skills such as braking, climbing, shifting, and navigating over rough terrain. Other topics will include bike repair and adjustments, basic first aid, safety, map reading, and trip planning. Students will be required to have their own mountain bike and helmet. An additional fee is required.

HPE 141 ELEMENTARY TENNIS (1) This course offers instruction and practice in forehand, backhand, serve, and volley with competition in singles and doubles.

HPE 149 STRENGTH TRAINING (1) This course provides instruction in principles of conditioning utilizing free weights, body resistance, and weight machines. Individualized programs of flexibility and strength are implemented.

HPE 190 HATHA YOGA (1) This course emphasizes Iyengar-style and includes standing poses, forward bends, back bends, and inversions for the beginning student, as well as integration of the breath with asanas (postures).

HPE 191 CONSCIOUS RELAXATION TECHNIQUES FOR STRESS MANAGEMENT (1) This course includes the techniques of visualization, slow-motion movement, Benson's relaxation response, and breath management.

HPE 205 COACHING APPRENTICESHIP (1-6) *Prerequisite: Consent of the instructor.* This course provides students with an apprenticeship experience in coaching a selected sport with emphasis on observation, leadership, and management of skill development. If more than one HPE 205 is taken it must be applied to experiences with different sports. Only one HPE 205 experience can be done within the Lynchburg College Intercollegiate Athletic Department.

HPE 223 BEHAVIOR MANAGEMENT IN HEALTH AND PHYSICAL EDUCATION (1) Students will explore basic principles of discipline and behavior management as they apply to health and physical education teaching. Students will explore prevention techniques, as well as environmental, multi-dimensional, and systemic approaches to assessment and intervention in behavior management.

HPE 258 FOUNDATIONS OF HEALTH AND PHYSICAL EDUCATION (3) This course addresses the foundation of health and physical education, including historical, philosophical, and sociological influences on educational practices in the United States. The class will also examine education as an institution in America from a cultural and organizational perspective and address how health and physical education are part of the process.

HPE 265 PHILOSOPHY OF OUTDOOR EXPERIENTIAL EDUCATION (3) This course is designed to provide students with the philosophical background of Outdoor Experiential Education. Students will study readings including Plato and John Dewey, but also more current work from Outward Bound and the Association of Experiential Education. Topics will include the roles and responsibilities of the teacher and the instructor, the role of the natural world, confidence building, and the societal impact of experiential learning. Skills include lesson planning and group facilitation.

HPE 266 OUTDOOR RECREATION LEADERSHIP (3) This course includes teaching principles and planning, implementing, leading, supervising, and evaluating outdoor recreational programs. Emphasis is given to wilderness leadership techniques and programming. Practical application is gained through planning and implementing a group trip.

HPE 303 MOTOR DEVELOPMENT (3) *Prerequisites: BIOL 222/222L, 223/223L.* This course describes and analyzes normal motor development across the lifespan, from prenatal development through older adulthood. It emphasizes identifying and classifying motor behaviors across the lifespan, as well as

understanding the interaction of environmental and biological factors that affect acquisition of these movement behaviors. Laboratory experiences are included.

HPE 304 SPORTS AND EXERCISE PSYCHOLOGY (3) Sports and exercise psychology are the scientific study of people and their behaviors in sport and exercise contexts. This course focuses on the social and motivational theories, as well as on identifying and understanding psychological interventions that can be applied to sport and exercise to enhance the performance and personal growth of athletes and physical participants.

HPE 310 PK-5 PHYSICAL EDUCATION METHODS PRACTICUM (4) *Prerequisite: HPE 303.* This course is designed to develop the knowledge and practical experience necessary to help individuals, grades K-5, achieve optimum growth and potential. The concepts of motor development, skills acquisitions, psycho-social development, and pedagogy will be linked to the curricular areas of skill themes, gymnastics, dance, games, and physical fitness. Observation and experience in the application of instructional theories to the teaching of movement are implemented during field practicum. This course requires a mandatory approved background check conducted at the end of the fall semester prior to enrollment in the course at the student's expense.

HPE 320 6-12 PHYSICAL EDUCATION METHODS PRACTICUM (4) *Prerequisites: HPE 310, approved background check, and admission to teacher preparatory program.* This course provides fundamental concepts and methods of inquiry associated with the middle and high school curriculum in fitness, dance, gymnastics, and sports. Some observation and experience in the application of instructional theories to the teaching of movement are implemented in on-site clinical experiences.

HPE 335 COMPREHENSIVE SCHOOL HEALTH PRACTICUM (4) *Prerequisites: HP 102 or HPE 102, and H P 239, 270, and 300, and admission to teacher preparatory program.* The focus of this course is curriculum development and instruction in school health education. It includes health concerns of school-age populations, curriculum resources, and unit and lesson plan development.

HPE 361 THE MEASUREMENT OF PERFORMANCE IN HEALTH AND PHYSICAL EDUCATION (3) *Prerequisite: MATH 222.* This course focuses on analyzing performance from quantitative and qualitative perspectives and the proper use of various instruments in health and movement.

HPE 362 HEALTH AND PHYSICAL EDUCATION FOR EXCEPTIONAL POPULATIONS (3) *Prerequisites: Approved background check and admission to teacher preparatory program..* This course surveys individualization of instruction for persons with challenging conditions and provides on-site clinical experiences with special populations.

HPE 397 INDEPENDENT STUDY IN HEALTH AND PHYSICAL EDUCATION (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

HPE 398 SPECIAL TOPICS IN HEALTH AND PHYSICAL EDUCATION (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

HPE 415 INTERNSHIP IN HEALTH AND PHYSICAL EDUCATION (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* This course offers a professional internship with an appropriate health fitness organization/program. The student and faculty sponsor will agree on the location and responsibilities of the intern. The number of credits will depend on the nature of the project and the number of hours involved in the project. (See "Internships.")

HPE 467 STUDENT TEACHING IN HEALTH AND PHYSICAL EDUCATION K-12 (11) *Prerequisite: Admission to Student Teaching; corequisite EDUC 448.* This supervised full-time, one semester field experience in K-12 culminates in full responsibility for teaching health and physical education under the direction of a cooperating teacher and College supervisor. All students will have placements in

both elementary and secondary programs. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

HEALTH PROMOTION COURSES (H P)

H P 102 LIFE CHOICES FOR HEALTH AND WELLNESS (2) This course explores the various factors influencing health. Students differentiate between healthy behaviors and those which place individuals at risk; investigate resources for health information; and become knowledgeable about and practice lifestyle health management skills.

H P 221 GLOBAL HEALTH (3) This course will provide students with an overview of the multiple factors that affect health on a global scale, and will equip students to meet the health needs of individuals in a multitude of cultural settings. Students will also be introduced to ethical and human rights concerns as they relate to global health.

H P 239 DIMENSIONS OF HEALTH AND WELLNESS (3) This course surveys historical and philosophical perspectives of health issues including the identification of individual responsibility for the development of attitudes and patterns of health behavior.

H P 270 NUTRITION (3) This course is a study of the science of food, its use within the body, and its relationship to a positive concept of good health.

H P 271 FOUNDATIONS OF HEALTH PROMOTION (3) This course examines foundations of the profession and the concepts and principles underlying the use of educational strategies to promote health in school, worksite, health care, or community settings. Identification of theoretical frameworks from behavioral and social sciences and their relationship to designing health education programs are discussed.

H P 275 MEDICAL TERMINOLOGY (3) This course will familiarize students entering the public health fields with fundamental medical terms, medical instrumentation, and medical exams used for a diagnosis, while also providing essential spelling and grammatical skills for the medical workplace.

H P 290 SPIRITUALITY AND HEALTH (3) Spiritual health is one of the six dimensions of wellness and is a vital component in the development and maintenance of overall health and well-being. Spiritual health can be defined as the experience of connection to self, others, and the community at large, providing a sense of purpose and meaning. The course is an exploration of current knowledge about the intersection of human spirituality and health. It is intended for health promotion and other health professionals and endeavors to address such questions as, What is spirituality? What is health? How are they related and how is spirituality currently being integrated into primary health care?

H P 300 DRUGS AND BEHAVIOR MANAGEMENT (3) *Prerequisites: BIOL 2222/222L, 223/223L.* This course surveys addictive substances and the causes of addictive behavior, theories of prevention, and treatment.

H P 322 HEALTH ASPECTS OF AGING (3) This course studies the biological, epidemiological, and social aspects of an aging population and the relationship to health and health care.

H P 325 HUMAN DISEASES (3) *Prerequisites: BIOL 222/222L, 223/223L, H P 239.* This course is a study of communicable and chronic diseases with regard to disease description, etiology, signs and symptoms, diagnostic procedures, treatment, prognosis, and prevention.

H P 340 WOMEN'S HEALTH ISSUES (3) Much of previous health research has focused on health-related issues solely as they relate to the male population. This course will explore current health research, which has taken a more intentional look at health-related issues as they relate to the female population. The course will look at women's health issues, with particular attention to their relevance for health promotion and education. Topics covered will focus on several dimensions of wellness, including the physical, mental, emotional, and spiritual and include: gender bias in health research; leading causes of death for women; body image and the media; eating disorders; depression; stress from multiple roles; violence and abuse; nutrition for pregnancy & breastfeeding; exercise and pregnancy; alcoholism among women; alcohol use and pregnancy; impact of tobacco, caffeine, and illegal drug use on women and on pregnancy; compli-

cations of sexually transmitted infections in women; cardiovascular disease as the leading cause of death among women; osteoporosis among women; pregnancy and asthma, epilepsy, lupus, and multiple sclerosis; cancers of the lung, breast, cervix, uterus, ovaries, skin, colon, and rectum.

H P 371W RESEARCH IN HEALTH PROMOTION [Writing Enriched] (3) *Prerequisites:* ENGL 111W-112W or ENGL 223W, H P 239, MATH 222. This course is intended to prepare students pursuing careers in health science fields (health education, public health, allied health, and medical professions) to be proficient in the practical aspects of health science research with a basis in theory. Basic principles of research will be examined with emphasis on study design, data collection, and basic statistical analysis of research data.

H P 372 CONTEMPORARY HEALTH ISSUES (3) This course is directed toward current health problems and concerns and includes such topics as disease, fitness, environmental health, global health, consumer health, and drug therapies.

H P 397 INDEPENDENT STUDY IN HEALTH PROMOTION (1-3) *Prerequisites:* Approval of faculty sponsor and school dean; junior or senior standing. This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor, and credit is dependent on the nature of the work. May be repeated for no more than six credits.

H P 398 SPECIAL TOPICS IN HEALTH PROMOTION (1-3) [credit depends on topic] *Prerequisite:* A background of work in the discipline. This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

H P 415 INTERNSHIP IN HEALTH PROMOTION (6-12) *Prerequisites:* H P 325, 271, 420; senior status with a minimum 2.25 QPA; approval of written proposal by health promotion department chair prior to registration. This course offers a professional internship with an appropriate public health/clinical site. The student and internship coordinator will agree on the location and responsibilities of the intern. The number of credits will depend upon the nature of the project and the number of hours involved in the project. (See "Internships.")

H P 420 HEALTH PROGRAM PLANNING (3) *Prerequisites:* H P 239, 271, 371, 372. This course prepares students to plan, develop, implement, and evaluate health education programs for a variety of settings, including community and worksite.

HISTORY COURSES (HIST)

HIST 101-102 HISTORY OF CIVILIZATION I, II (3,3) This is the basic course sequence in history designed to provide the student with a knowledge of world cultures and an introduction to the nature of historical thinking. A two-semester sequence, the first semester encompasses the period from prehistory to about 1600 C.E., the second from 1600 to the present.

HIST 200W THE HISTORIAN'S CRAFT [Writing Enriched] (3) *Prerequisites:* ENGL 111W-112W or ENGL 223W, HIST 101-102. An introduction to historical methods and writing, this course exposes students to ways in which historians think and assists students in developing research topics, conducting original research, and presenting the results in the form of papers and reports. Normally taken in the sophomore year, it is required of all history majors and is open to any student interested in the historical perspective.

HIST 201 THE ATLANTIC WORLD TO 1825 (3) *Prerequisites:* HIST 101-102. An integrative survey of the history of civilizations that developed around the Atlantic World, drawing particular attention to the ways in which Europe, Africa, and the Americas were drawn together into an Atlantic Civilization, with its own distinctive features that sets it apart from the Mediterranean and Pacific Civilizations. This course covers Atlantic history from its beginnings in the Age of Exploration to the period of revolutions ending in the early 19th century.

HIST 202 THE ATLANTIC WORLD SINCE 1800 (3) *Prerequisites:* HIST 101-102. This

course covers Atlantic history from the period of revolutions down to the present, which saw fissures in the Atlantic World but during which time Atlantic Civilization nevertheless persisted. This course, along with HIST 201, forms a core sequence for all history majors.

HIST 203 CRIME AND PUNISHMENT IN AMERICA (3) *Prerequisites: HIST 101-102.* The course is an overview of changing attitudes concerning legal and extralegal issues in crime and law enforcement in America. Among the issues it will address are the roles of race, gender, religion, ethnic origin, and sexuality in the interplay of cultural and legal perceptions in defining, policing, and punishing crimes. It may include such topics as punishment of chattel slaves and penal servitude in the eighteenth and nineteenth centuries, the use of chain gangs and prison farms in the nineteenth and twentieth centuries, rise of the ethnic gangs in the nineteenth and twentieth centuries, the use of civil disobedience in the 20th and 21st centuries, and the rise of anarchism and terrorism in the nineteenth and twentieth centuries.

HIST 216 MODERN JAPAN (3) *Prerequisites: HIST 101-102.* This course will deal with the socio-political and historical development of Japan during the period between 1600 and 2000. An examination of the changing economic and political patterns affecting class, ethnic, and gender relations will be the primary foci. All of this will be studied in the context of Japan's interactions with both its Asia-Pacific neighbors and the West in order to understand the contemporary place of Japan in the modern world.

HIST 243 CONTEMPORARY AFRICA (3) *Prerequisites: HIST 101-102.* This introduction to Africa from an interdisciplinary perspective includes geography, history, social structure, political development, and culture. Themes include the impact of colonialism and African nationalism, the role of women in society, the quest for social justice, leadership, and politics since independence, and the role of Africa in world affairs.

HIST 255 AMERICA TO 1877 (3) *Prerequisites: HIST 101-102.* This course deals with the founding American colonies, their growth, and eventual break with England that led to the establishment of the republic. Subsequent topics include Federalism, Jacksonian Democracy, Slavery and Sectionalism, the Civil War, and Reconstruction.

HIST 256 AMERICA SINCE 1877 (3) *Prerequisites: HIST 101-102.* This course examines the changes that have redefined American life since the 1870s. Special attention is given to the impact of industrialization and urban development, and the emergence of the United States as an international power. Issues of gender, race, class, and family are explored through class discussion, role plays, and debates. Special attention is given to local manifestations of larger historical developments such as war, politics, and social change.

HIST 275 LATIN AMERICAN HISTORY (3) *Prerequisites: HIST 101-102.* This course examines the history of the Spanish- and Portuguese-speaking countries of Latin America from the colonial period to present-day, with a brief overview of pre-Columbian civilizations. Major themes will include the Iberian legacy, the role of the Catholic Church, cultural development, social and political evolution, and changing economic contexts. Modern issues to be examined include social hierarchies, revolutionary movements, periods of dictatorship, and the history of democratic change in the region.

HIST 301 RISE OF THE AMERICAN CITY (3) *Prerequisites: HIST 101-102.* This course examines the changes in the functions of the city in American society and the transformation of urban life from the colonial period to the present. Topics include America's evolution from an agricultural to an urban society, the impact of industrial and transportation technologies as well as migration on the city, and the redefinition of urban politics.

HIST 303 THE ANTEBELLUM SOUTH (3) *Prerequisites: HIST 101-102.* This course is a study of all aspects of Southern life and civilization from the colonial period to secession.

HIST 305 ENGLAND TO 1485 (3) *Prerequisites: HIST 101-102.* This course traces the development of England as a state from the Roman invasions through the Middle Ages to the early modern period, including the origins of Parliament and the Common Law, the Hundred Years War, and the War of the Roses.

HIST 306 GREAT BRITAIN SINCE 1714 (3) *Prerequisites: HIST 101-102.* This course covers the creation of the British Empire and its evolution into the British Commonwealth through revolutions, colonial crises, and two world wars.

HIST 311 **MEDIEVAL CULTURE (3)** *Prerequisites: HIST 101-102.* This course covers the breakup of the Roman Empire, development of feudal institutions, growth of the Church, rise of towns, the development of commerce, political theory, art, music, and literature.

HIST 312 **RENAISSANCE AND REFORMATION (3)** *Prerequisites: HIST 101-102.* This course presents the flowering of art, literature, music, and science; the emergence of the sovereign state; and the religious crisis of the sixteenth century.

HIST 322 **EUROPE SINCE 1914 (3)** *Prerequisites: HIST 101-102.* In this course the diplomatic approach is utilized with emphasis on the interaction of the major European nations (and the United States after World War II) as they deal with the realignment of power after World War I, the rise of Nazism, the expansion of Communism into Eastern Europe after World War II, the emergence of the European Union, and the fall of the Berlin Wall.

HIST 323 **GREEK CIVILIZATION (3)** *Prerequisites: HIST 101-102.* This consideration of all phases of Greek achievement places special attention on intellectual and artistic accomplishments and Greek historical writing.

HIST 324 **ROMAN CIVILIZATION (3)** *Prerequisites: HIST 101-102.* This course is a survey of Rome's political, social, economic, and cultural history as a background for our culture today.

HIST 330 **MILITARY HISTORY (3)** *Prerequisites: HIST 101-102.* This course is a survey of the military in American and European history from the seventeenth century to the present.

HIST 333 **THE CIVIL WAR AND RECONSTRUCTION (3)** *Prerequisites: HIST 101-102.* This course examines the period 1850-1877 including the causes and consequences of the war, the major battles, the changes in political parties, and the attempt to provide constitutional protection for the freedmen.

HIST 336 **AMERICAN SOCIAL HISTORY (3)** *Prerequisites: HIST 101-102.* This course is an examination of the experience of Americans in such social contexts as gender roles, family, work, and leisure from the Colonial period to the present. The impact of historical factors on American attitudes and lifestyles are of particular interest.

HIST 339 **COLONIAL BRITISH NORTH AMERICA (3)** *Prerequisites: HIST 101-102.* This course is a study of England and her North American colonies, covering the years 1607-1754.

HIST 340 **THE ERA OF AMERICAN REVOLUTIONS (3)** *Prerequisites: HIST 101-102.* This course examines the American Revolution in the Atlantic context of the Age of Enlightenment and Revolution, covering the years 1754-ca. 1825.

HIST 341 **AGE OF COURTS AND KINGS (3)** *Prerequisites: HIST 101-102.* This course is a survey of modern Europe from the death of Philip II of Spain in 1598 to the fall of the ancient regime in France in 1789 with particular emphasis on the expansion of European civilization and its transformation by the scientific and intellectual revolutions.

HIST 342 **FROM REVOLUTION TO ARMAGEDDON (3)** *Prerequisites: HIST 101-102.* This course focuses on the emergence of a new Europe during the French Revolution and its steady progress until the tragedy of World War I.

HIST 343 **SOUTH AFRICAN HISTORY (3)** *Prerequisites: HIST 101-102.* This course focuses on the social, political, cultural, and economic life of contemporary South Africa and its changing role in the world, all set in the context of its history and character as a 'Rainbow Nation.' Students will consider South Africa's prospects for establishing a multiracial democracy while facing a host of social and economic challenges: unemployment, crime and violence, and an HIV/AIDS epidemic that threatens social cohesion.

HIST 344 **HISTORY OF WOMEN IN THE AMERICAS (3)** *Prerequisites: HIST 101-102.* The course will use the lives of women to understand the shared American experience, as well as to determine which factors make each region of the Americas unique. Students will explore the historical forces that created "the Americas," focusing on the commonalities and differences of the North American and Latin American regional histories. Students will look at transnational movements such as the abolitionism and

feminism as well as Latin American responses to the U.S. and its policies.

HIST 345 TUDOR ENGLAND (3) *Prerequisites: HIST 101-102.* This course is a study of the evolution of English institutions and culture from the time of national renewal under Henry VII to the glorious reign of Elizabeth I.

HIST 346 THE STUART CENTURY (3) *Prerequisites: HIST 101-102.* A survey of England from the accession of James I to the death of Queen Anne with an emphasis on the birth of the British Empire, the Civil Wars, the Restoration, the Revolution of 1688, and the emergence of political parties.

HIST 347W SLAVERY AND RACE IN THE EARLY AMERICAS [Writing Enriched] (3) *Prerequisites: ENGL 111W-112W or ENGL 223W, HIST 101-102.* An examination of the roles slavery and emerging European understandings about racial difference played in the social, cultural, and political development of settler societies in the Americas. By studying the economic structures, cultural interactions, and moral quandaries created by the African slave trade, the course will lead to a fuller appreciation of the culturally embedded and historically constructed intertwining of economics, ideas, race, and identities in the early Americas.

HIST 348 RACISM AND EMPIRE IN THE AMERICAN CONTEXT (3) *Prerequisites: HIST 101-102.* The continuation of HIST 347 Slavery and Race in the Early Americas, this course examines the practice of modern racism and imperialism in the Americas during the nineteenth and twentieth centuries. The course investigates how conceptions of race and national identity influenced the European and American pursuit of empire during the era of “new imperialism”. Topics covered include racism in America after the Civil War, eugenics and “scientific” racism, anti-semitism, and American and European involvement in Latin America and Asia.

HIST 353 THE HOLOCAUST (3) *Prerequisites: HIST 101-102.* This course introduces students to Nazi Germany’s systematic mass murder of Jews in Europe during the Second World War. Topics to be covered in this course include Jewish life in Europe prior to the 20th century, the origins of racial anti-Semitism, the development of National Socialist ideologies, the origins of Nazi racial policies in the 1930s, Nazi eugenics and euthanasia campaigns, the war of annihilation waged against Jews under Germany’s control during World War II, the mass murders of other groups during the war, Jewish resistance to the Holocaust, and the help or lack thereof offered by non-Jews to mitigate the Holocaust.

HIST 370 THE U.S. AND THE WORLD (3) *Prerequisites: HIST 101-102.* This course traces the history of American foreign relations from the Revolutionary period to the present within the context of national development and world politics.

HIST 375 HISTORY OF LOVE AND SEX IN LATIN AMERICA (3) *Prerequisites: HIST 101-102.* This course will examine the historical forces that affect the role definitions, institutions, and behaviors related to gender relationships, love and courtship, the formation of families (formally through marriage or informally through cohabitation), and sexual expression in Latin America from the 1870s to the present. Students will also examine the intersections of gender with class and race to demonstrate how society has used these social constructions to create and reinforce hegemony.

HIST 377 STUDY ABROAD (3) *Prerequisites: HIST 101-102.* Through travel to another country, this course provides the student the opportunity to study the historical, political, economic, social, and cultural development of that country and compare it with the development of the United States.

HIST 380 AMERICA IN THE 1960s (3) *Prerequisites: HIST 101-102.* This course addresses some of the problems, potentials, and legacies of the 1960s by sampling the opinions of historians and contemporary observers about such issues as the women’s movement, the civil rights movement, the Kennedy and Johnson presidencies, the counter culture, New Left, and Vietnam.

HIST 397 INDEPENDENT STUDY IN HISTORY (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

HIST 398 SPECIAL TOPICS IN HISTORY (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

HIST 399 INTERNSHIP IN HISTORY (1-6) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* An internship is a planned work experience for academic credit under the supervision of a qualified professional who is responsible for professional performance and a faculty sponsor who is responsible for academic quality and who assigns the final grade. (See "Internships.")

HIST 402W HISTORY SENIOR THESIS SEMINAR [Writing Enriched] (3) *Prerequisites: ENGL 111W-112W or ENGL 223W, HIST 200, 201, 202, and senior standing.* Students will write a thesis based on primary sources and relevant secondary material on a topic of their own choosing. The instructor will consult with students during each phase of the research process and evaluate the progress of the thesis throughout the semester.

HONORS COURSES (HONR)

HONR 100 FRESHMAN SEMINAR: THE HONORS EXPERIENCE (1) This course prepares students for the honors experience by providing them with essential skills needed to function effectively as members of a living and learning community.

HONR 103W ADVANCED ENGLISH COMPOSITION [Writing Enriched] (3) *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* This course emphasizes the process of writing in which students produce a range of expository essays. Students' writing and reading skills are refined through the close analysis of selected texts and careful editing of student writing.

HONR 111-112 HUMANITIES SEMINAR I, II (3,3) These seminars explore topics in Western civilization from an essentially historical perspective including consideration of questions relating to political stability, war and revolution, economic development, social conditions, and significant ideas and movements in the arts, sciences, philosophy, and religion. First semester generally comprises studies from the ancient Near East, Greece, and Rome through the Middle Ages and the Renaissance. Second semester treats topics from the Age of Discovery and the Reformation through the French Revolution and Napoleonic Wars, the Industrial Revolution, and the twentieth century.

HONR 121 MATHEMATICS SEMINAR (3) This overview of the fundamentals of mathematics includes selected topics such as symbolic logic, elementary set theory, theory of numbers, inductive and deductive reasoning, analysis of algorithms, geometry, probability, calculus, and mathematical foundations of computer science.

HONR 131 SOCIAL SCIENCE SEMINAR (3) This course is an inter-disciplinary analysis of economic, political, and social issues including issues related to methods of social research.

HONR 211 HUMANITIES SEMINAR (3) This course is a comparative study of selected texts from world literature that provides students with multiple perspectives on significant human issues.

HONR 212 HUMANITIES SEMINAR (3) This seminar examines major schools of philosophy and/or major religious traditions with discussion of varied specific topics within these disciplines.

HONR 221 FINE ARTS SEMINAR (3) This seminar provides interdisciplinary inquiry into the processes of imagination and artistic creation, relationships among the visual and performing arts, and the social and cultural values of the fine arts.

HONR 233-234 SCIENCE SEMINAR I, II (4, 4) Three hours lecture and two hours laboratory. This two-course sequence presents an integrated approach to the study of the sciences. Seminars focus on the principles that form a seamless web of knowledge about the natural universe. Students gain an understanding of the scientific process and will learn to read and appreciate popular accounts of major discoveries in the sciences.

HONR 341, 342, 343, 344, 345, 346 HONORS COLLOQUIUM (3) Thematic colloquia are organized around artistic, philosophical, scientific, and other issues in areas such as war and peace, tyranny and freedom, poverty and wealth, and faith and morals. Recent colloquia include “The Film Maker as Philosopher,” “The Challenge of Economic Change After Communism,” “Probability and Reality,” and “Re-thinking American Literature.”

HONR 397 INDEPENDENT STUDY IN HONORS (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

HONR 398 SPECIAL TOPICS IN HONORS (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

HONR 435-436 HONORS SYMPOSIUM (1,1) *Corequisite: GS 435-436.* Students in Honors Symposium enroll in the regular Senior Symposium (GS 435-436) and attend the lectures and a discussion section with the other students in that class. They then meet separately for an additional hour of discussion.

HONR 451-452 SENIOR HONORS PROJECT (3,3) An approved project must be developed with a faculty advisor and evaluated with the aid of a three-person faculty committee that includes the advisor and an instructor from outside the project’s discipline. Each project must meet the guidelines of the Westover Program’s “Policy on the Senior Honors Project.” All students must complete a minimum of three hours of Senior Honors Project. Students are encouraged to pursue a project in their major discipline, although interdisciplinary projects are acceptable if approved by the advisor. Enrollment in the senior honors project for six hours credit ordinarily requires one project of appropriate depth to necessitate a full year of attention or two individual projects credited at three hours each.

HUMAN SERVICES COURSES (HMSV)

HMSV 268 SOCIAL WELFARE POLICY (3) *Prerequisite: SOCI 201.* The focus of this course is on introducing students to the history of social welfare policy in the United States, and engaging students in critical thinking around the impact of past and current policies on the welfare of individuals in urban and rural communities with whom human service professionals interact.

HMSV 320 CASE MANAGEMENT IN HUMAN SERVICES (3) *Prerequisites: SOCI 201, 209.* In this course, students will be exposed to the processes and procedures involved with the many career fields in which human services professionals work; apply knowledge of these processes and procedures to develop the skills necessary to be effective and ethical case managers, program managers, and supervisors; and assess students’ progress toward culturally competent models of professional practice.

HMSV 375 EVIDENCE-BASED PRACTICE AND EVALUATION (3) *Prerequisites: SOCI 270.* Using professional practice and program evaluation as a framework for enhancing students’ knowledge and skills in social science research, this course focuses on the art and science of conducting rigorous and ethical qualitative, quantitative, and mixed-methods studies. Instruction in qualitative research includes sampling, data collection, interviewing and observation, assessment of quality, and methodological approaches from positivist, interpretive, and action-orientated perspectives. Instruction on quantitative research includes sampling, study design, data collection, questionnaire construction, secondary data analysis, regression and correlation analysis, and analysis of variance.

HMSV 396 HUMAN SERVICES PRACTICUM (3) *Prerequisites: SOCI 201, 209; seniors with a 2.25 minimum QPA; approval of written proposal by practicum coordinator, academic advisor, and school dean prior to registration.* This course provides students in the Human Services Emphasis of the Sociology major with a supervised practicum experience in a setting consistent with the student’s professional area of interest. Examples of practicum settings include, but are not limited to, social services departments; primary and secondary schools; higher education student affairs departments; human service agencies and organizations; community organizing coalitions; grass roots organizations; mental health, substance abuse,

and crisis intervention service settings; and hospital organizations. Practicum experiences are developed by the student with assistance from the sociology faculty and/or the practicum coordinator.

INTERNATIONAL RELATIONS COURSES (INTL)

INTL 101 GLOBAL POLITICS (3) This course is an introduction to the study of interstate relations in the post-Cold War era. Emphasis is on global policy making with respect to issues of global concern. Special attention is paid to global environmental issues, human rights, globalization of the international economy, and the promotion of global peace and security.

INTL 213 WORLD REGIONAL GEOGRAPHY (3) This course is a study of the earth in terms of the cultural, environmental, historic, economic, and organizational qualities of its human inhabitants.

INTL 270 INTERNATIONAL RELATIONS THEORY (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course analyzes the politics among nation-states with particular attention to the political, military, technological, and economic forces at work shaping the post-Cold War world. Students also explore theories of international conflict and cooperation.

INTL 290 INTRODUCTION TO INTERNATIONAL POLITICAL ECONOMY (3) *Prerequisite: INTL 101.* This course explores the interaction between politics (the state) and economics (business). It will explore topics such as Globalization, development, fiscal policy and trade policy, among others, using current events to illustrate theory.

INTL 321 RESEARCH METHODS IN INTERNATIONAL RELATIONS (3) *Prerequisites: INTL 101, 213.* This course provides an introduction to research methods and writing in international relations, covering such concepts as hypothesis, research designs, and techniques of qualitative and quantitative data analysis.

INTL 377 STUDY ABROAD (1-6) *Prerequisite: Consent of the instructor.* This course provides students with the opportunity to study principles of international relations in foreign settings.

INTL 397 INDEPENDENT STUDY IN INTERNATIONAL RELATIONS (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

INTL 398 SPECIAL TOPICS IN INTERNATIONAL RELATIONS (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

INTL 399 INTERNSHIP IN INTERNATIONAL RELATIONS (1-6) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* Internships in international relations may be arranged with the U.S. Department of State (either in Washington, D.C. or at a U.S. embassy abroad), with other U.S. Government agencies having an international orientation, certain types of Congressional positions having a foreign policy connection, international agencies (governmental or private), and businesses with significant international operations. (See "Internships.")

INTL 400 SENIOR THESIS IN INTERNATIONAL RELATIONS (3) *Prerequisite: INTL 321.* The senior thesis is designed to be a capstone course in which the student, working under the supervision of an international relations faculty member, designs and executes a research program in some aspect of international relations. The course culminates with the writing and presentation of a formal research paper.

LATIN COURSES (LATN)

All students entering the 102, 201 and 202 language levels will be required to take a placement test. The

results of this test will determine the highest level of the language in which a student may enroll: i.e. 0-49 = LATN 101, 50-79 = LATN 102, 80-100 = LATN 201. Class level placement is also based upon the successful completion of the prerequisite language course at the college level, earned AP credit or by consent of the instructor.

To receive a waiver from LATN 201, and place into LATN 202, a student must score at least 60% on a test comparable to the final examination in Latin 201, Intermediate Latin I, which includes translation of unadapted classical Latin, reading comprehension and grammar, composition, and culture. The examination is proctored at Lynchburg College and scored by the Latin instructor.

Work in the MLRC constitutes part of the elementary and intermediate language courses for Latin. It is designed to furnish peer language tutors for review and to teach and test vocabulary, comprehension and translation skills, the components of which are auditory discrimination, auditory memory, pronunciation and fluency.

For students whose native language is not English, the foreign language Gen Ed requirement may be waived using the substitution waiver form based on passing an acceptable proficiency in speaking and writing in the native language.

LATN 101 ELEMENTARY LATIN I (3) This is the first part of a two-course sequence in basic Latin. The course covers vocabulary and fundamentals of Latin grammar with simple sentence translation and composition together with aspects of Roman culture, including history and daily life. Placement in this course will be determined by score range on the Latin Placement Test required of all students wishing to register for Latin at Lynchburg College.

LATN 102 ELEMENTARY LATIN II (3) This is the second part of a two-course sequence in basic Latin. The course continues the study of vocabulary and Latin grammar from Elementary Latin I, with simple passage translation and composition, together with aspects of Roman culture and history. Placement in this course will be determined by score range on the Latin Placement Test required of all students wishing to register for Latin at Lynchburg College.

LATN 201W INTERMEDIATE LATIN [Writing Enriched] (3) *Prerequisites: LATN 101, 102. Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* (Each student's level is determined by a placement test that is given at the beginning of the course.) The course reviews Latin grammar and intensive reading and course brings students to the novice high/intermediate low level (ACTFL Guidelines).

LATN 202 INTERMEDIATE LATIN II (3) *Prerequisite: LATN 201.* The course focuses on the reading of classical Latin prose and poetry, with attention to comprehension, interpretation, and accurate translation into coherent English, with an introduction to manuscript studies, the contexts in which the classical authors were preserved.

LATN 203 MEDIEVAL LATIN (3) *Prerequisite: LATN 201.* This course is designed to provide a recertification credit opportunity for Latin teachers in middle and high schools. It is also open to interested college and university students and faculty. Building on the classical tradition, this course shows how the Latin language and genres of writing such as legends, biographies, letters, and poetry, including drama, were influenced by and expanded upon classical Latin sources during the Middle Ages, following the fall of Rome in 476 A.D. Thus it provides continuity from the study of ancient Roman culture, prose, and poetry, which spread throughout the empire, was preserved in manuscripts and printed books, and developed in new forms.

LATN 208 CLASSICAL LATIN LITERATURE IN ENGLISH TRANSLATION (3) This course focuses on selected works from classical Latin literature, from the Early Republic to the High Empire of Rome, c. 240 B.C. - 200 A.D. Genres include epic, comedy and tragedy, lyric, elegiac and pastoral poetry, history, biography, orations, and letters.

LATN 397 INDEPENDENT STUDY IN LATIN (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

LATN 398 SPECIAL TOPICS IN LATIN (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered

by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

MANAGEMENT COURSES (MGMT)

MGMT 101 FRESHMAN SEMINAR IN MANAGEMENT (3) *Prerequisite: Freshman standing only.* This theme-based course gives students exposure to management early in their college career. Designed around the interests of the instructor, the course will provide students with the opportunity to use management principles to explore an issue from multiple perspectives. Through in-depth study of a specific topic (e.g., productivity through people and team development), students will be introduced to basic management concepts as they develop critical thinking and communication skills.

MGMT 244 OPERATIONS MANAGEMENT (3) *Prerequisite: BUAD 241.* This course introduces production and operations functions in business. Topics include forecasting, plant location, transportation models, inventory models, scheduling techniques, just-in-time, and other application uses for quantitative methodology.

MGMT 260 PRINCIPLES OF MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (3) This course studies the common activities of managers and includes planning, problem solving, organizational theory and application, direction of personnel utilizing organizational behavior theories, and control principles and their application.

MGMT 262 HUMAN RESOURCE MANAGEMENT (3) This introduction to human resource management includes human resource planning, workforce planning, employment law, recruiting and hiring personnel, training and developing employees, motivating and compensating employees, and evaluating and rewarding employees.

MGMT 303 APPLIED MANAGEMENT STRATEGIES (3) *Prerequisite: MGMT 260.* This course provides students with the analytical and practical foundations and strategies needed to (a) anticipate, manage, recover, and learn from crises, (b) implement effective and lasting change initiatives, and (c) manage in diverse and multinational environments. The student's "cultural intelligence" will be honed through the exploration of similarities and differences among organizations in varied national cultures.

MGMT 310 MANAGEMENT INFORMATION SYSTEMS (3) *Prerequisite: MGMT 260.* This course examines information systems from a management perspective and surveys key topics of information systems including: computer software, hardware, communications, examples of applications, and information systems planning.

MGMT 321 GROWING TALENT: TRAINING AND DEVELOPMENT (3) This course is designed to focus on critical issues within the field of training and development. First, students in this course will learn how to design, implement, and evaluate effective training programs. In the second half of the course, students will explore how to diagnose organizational problems and implement change.

MGMT 350 NEGOTIATION AND RELATIONSHIP MANAGEMENT (3) *Prerequisite: MGMT 260.* This course will explore effective negotiation and professional relationship management. The student will learn to identify the variables in negotiations, develop sound negotiation techniques, and develop an understanding of various strategies and tactics to use in conflict resolution. The student will also increase awareness and understanding of ethical principles and stakeholder considerations that influence interpersonal transactions and relationships.

MGMT 360 PROJECT MANAGEMENT (3) This course introduces established norms, methods, processes, and practices in project management. Students learn to plan a project, create a project schedule, assign resources and costs, track projects, and share information across projects, applications, and the World Wide Web.

MGMT 363 MANAGING DIVERSITY WITHIN ORGANIZATIONS (3) This course introduces students to diversity in organizations, focusing on three levels of analysis: organizational, team, and individual. The intent is to assist students, as future managers, to lead a diverse workforce and to manage diversity as a business strategy. The course is designed to develop both individual and organizational

competencies for managing diversity through the medium of different theories, approaches, and images. Students will survey theory, research, and practices associated with diversity. The course will supplement assigned readings with exercises, case studies, debates, and simulations to improve student's analytical and reasoning skills.

MGMT 364 ACQUIRING TALENT : WORKFORCE PLANNING AND STAFFING (3) This course examines how organizations plan for their workforce needs, develop their recruitment strategies, and design and implement their hiring policies and protocols.

MGMT 377 STUDY ABROAD: INTERNATIONAL MANAGEMENT (3) *Prerequisite: MGMT 260.* This course offers students the opportunity to study management challenges associated with business activity in foreign settings. It aims to provide students with knowledge, understanding, and skills that will help them manage more effectively in an international environment.

MGMT 397 INDEPENDENT STUDY IN MANAGEMENT (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

MGMT 398 SPECIAL TOPICS IN MANAGEMENT (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

MGMT 399 INTERNSHIP IN MANAGEMENT (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* Internships are offered in cooperation with a member of the management faculty who is responsible for holding a weekly class meeting and assigning the final course grade. Student interns may or may not be paid for their work. (See "Internships.")

MGMT 422 KEEPING TALENT: PERFORMANCE APPRAISALS, COMPENSATION AND EMPLOYEE/ LABOR RELATIONS (3) *Prerequisite: MGMT 262.* This course provides a broad understanding of performance appraisals, compensation, and employee-labor relations. Topics covered include: designing and implementing performance appraisals, setting and administering pay structures, incentive and traditional pay, employee benefits, labor relations, employee-employer relationships, and flexible work arrangements.

MGMT 472 THE ART OF STRATEGY (3) *Prerequisites: ACCT 202, FIN 317, MGMT 244, 262, 303.* This integrative course uses the case method to hone student ability to analyze and evaluate organizational strategic decisions. Written and oral communication skills for a variety of organizational business problems are exercised. Students also enhance their skills in strategy and policy formulation and implementation.

MGMT 475 STRATEGIC HUMAN RESOURCE MANAGEMENT (3) *Prerequisites: MGMT 262, 321.* This course provides a capstone experience where students integrate principles of business strategic management and strategic human resource management. Topics covered include strategic management, HRM planning, HRM audit, HRM metrics, measuring HRM effectiveness, and HRM alignment.

MARKETING COURSES (MKTG)

MKTG 101 FRESHMAN SEMINAR IN MARKETING (3) This theme-based course gives students exposure to marketing early in their college career. Designed around the interests of the instructor, the course will provide students with the opportunity to use marketing principles to explore an issue from multiple perspectives. Through in-depth study of a specific topic (e.g., social media marketing, consumer privacy rights, cross-cultural branding, and videogame marketing), students will be introduced to basic marketing concepts as they develop their critical thinking and communication skills.

MKTG 200 SOCIAL MEDIA MARKETING (3) This interactive course will focus on how to design, strategize, implement and evaluate a digital marketing strategy for small and mid-size organizations. An understanding of the opportunities and challenges of the Digital Media Revolution will be developed through readings, case studies, and hands-on activities. Students will learn how to use and optimize basic social media tools [Blogs, Facebook, Twitter, YouTube, and LinkedIn] with traditional marketing efforts. Teams will launch a Digital Marketing Strategy.

MKTG 209 PRINCIPLES OF MARKETING (3) This course provides a comprehensive study of the structure and function of marketing systems in the firm, the economy, and society. The course develops the analysis of target markets, the assessment of the firm's external environments, and the management of marketing practices both domestically and internationally.

MKTG 371 MARKET RESEARCH (3) *Prerequisites: BUAD 241, MKTG 209.* This quantitative course provides students with the tools and knowledge required to acquire data in product development or product management situations, to analyze the data appropriately, and to generate useful recommendations on the basis of their analysis.

MKTG 372 SALES AND SALES MANAGEMENT (3) *Prerequisite: MKTG 209.* This course examines direct sales environments with an emphasis on industrial goods selling. Students develop personal selling skills in concert with an understanding of buyer needs and requirements as expressed in the buying motion. Other topics include sales strategy development, organizational design, performance evaluation, compensation, and territory administration.

MKTG 374 RETAILING AND MERCHANDISING (3) *Prerequisite: MKTG 209.* This study of distribution systems management emphasizes retail store management. Topics include location decisions, layout, service, strategy, product mix, pricing, purchasing and stocking, and local advertising.

MKTG 375W CONSUMER AND BUYER BEHAVIOR [Writing Enriched] (3) *Prerequisites: ENGL 111W-112W or ENGL 223W, MKTG 209.* This course is an interdisciplinary approach to the analysis and application of psychological, social, and cultural influences on the behavior of consumers and organizational buyers. The interrelationships of marketing actions and buyer behavior are analyzed with the goal of making effective marketing decisions.

MKTG 377 STUDY ABROAD (3) *Prerequisite: MKTG 209.* This course focuses on marketing challenges associated with business activity across national boundaries. It aims to provide students with the knowledge, understanding, and skills that will help them market more effectively in an international environment. Included in this course is a field study experience in a foreign country.

MKTG 379 MARKETING COMMUNICATIONS (3) *Prerequisite: MKTG 209.* This course is an intensive examination of the roles of advertising, personal selling, sales promotion, and public relations in product or service marketing efforts. Topics include theme selection, copy and artwork preparation, media selection, performance analysis, budgeting, and other areas relevant to promotion.

MKTG 380 SERVICES MARKETING (3) *Prerequisite: MKTG 209.* The course examines dimensions of the services sector, including the structural differences between services and consumer/industrial products. It explores service marketers' difficulties in using traditional marketing concepts and focuses on new marketing approaches for service sectors in the information age economy.

MKTG 397 INDEPENDENT STUDY IN MARKETING (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

MKTG 398 SPECIAL TOPICS IN MARKETING (1-3) [credit depends on topic] *Prerequisites: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

MKTG 425 E-MARKETING (3) *Prerequisite: MKTG 209.* This course focuses on the theory and

applications of online/Internet based business strategies. The course is designed to introduce the student to the current trends and aspects of developing a business on the Internet. The topics to be covered include, but are not limited to: basic development and implementation issues of an online business, registering and promoting an online business, design issues associated with a web site, customer-based issues, and current issues within the realm of online business and the consumer.

MKTG 451 MARKETING MANAGEMENT (3) *Prerequisites: MKTG 371, 375.* This course focuses on the application of problem-solving in the area of marketing management. Emphasis is placed upon the analysis of markets, planning the marketing effort, management of the marketing organization, and control of marketing operations. This course is taught using the case method and/or computer simulation.

MATHEMATICS COURSES (MATH)

MATH 102 PRECALCULUS (3) *Prerequisite: At least two years of high school algebra.* This course includes the study of a variety of functions and their graphs and transformations, including linear, quadratic, rational, polynomial, logarithmic, exponential and trigonometric functions. The study of trigonometry will include both the right triangle and the unit circle approach. The course is intended to strengthen the algebra and trigonometry skills required for the study of calculus.

MATH 103 CALCULUS I (3) *Prerequisite: MATH 102.* This course introduces the student to elementary differential calculus with applications.

MATH 104 CALCULUS II (3) *Prerequisite: MATH 103.* Differential and integral calculus of single variable transcendental functions, methods of integration, and applications are studied.

MATH 105 PROBLEM SOLVING IN MATHEMATICS (3) This course introduces students to the true nature of mathematics, what mathematicians really do, how they think, and what they try to accomplish. The focus is on using quantitative reasoning and intuitive logical thought techniques to solve problems rather than formal rigid processes. Selected topics may include, but are not limited to, number estimation, number theory, probability, mathematical modeling, regression, infinity, strange geometries, chaos and fractals, and famous math problems. This course meets the general education mathematics requirement.

MATH 106 LIBERAL ARTS MATHEMATICS (3) This course introduces the student to the language and modeling capabilities of mathematics by providing a broad overview of several different fields of mathematics including logic, linear algebra, probability, statistics, and the mathematics of finance with the purpose of developing an appreciation of the extent and usefulness of those ideas in our ordinary lives.

MATH 117 INTRODUCTION TO SCHOOL MATHEMATICS I (3) *Prerequisite: General Education Math.* This course covers key topics in school mathematics including an introduction to the central concepts of pre-secondary mathematics and the National Council of Teachers of Mathematics (NCTM) recommended standards. Topics include problem-solving methodologies, sets, elementary number theory, arithmetic of the whole and rational number systems, and pedagogy. This course may not be used to satisfy any of the requirements for the mathematics minor.

MATH 118 INTRODUCTION TO SCHOOL MATHEMATICS II (3) *Prerequisite: MATH 117.* This is a continuation of MATH 117 and covers the basic concepts and operations of real numbers as well as various selected topics in mathematics from the recommended Standards of the National Council of Teachers of Mathematics (NCTM) and the PRAXIS exam. Topics include number theory, geometry and measurement, probability, and statistics. This course may not be used to satisfy any of the requirements for the mathematics minor or major.

MATH 211 CALCULUS III (3) *Prerequisite: MATH 104.* Polar coordinates, infinite series and sequences, multivariable calculus, partial differentiation, multiple integration, three-dimensional analytic geometry and applications are studied.

MATH 222 INTRODUCTORY STATISTICS (3) This is an introductory statistics course without a calculus prerequisite. Topics include probability, samples, distributions, sampling theory, estimation, hypothesis testing, two-sample tests, Chi-square and contingency tables, regression and correlation, analysis of variance, and decision theory.

MATH 231 THE MATHEMATICS OF COMPUTER SCIENCE (3) This course introduces the theoretical and mathematical foundations of computer science. Topics include sets, summations and limits, number systems, mathematical induction, logic and Boolean algebra, probability and statistics, automata and grammars, combinatorics, and graph theory.

MATH 260 MATHEMATICAL REASONING AND PROOF (3) *Prerequisite: MATH 104.* This course is an introduction to mathematical reasoning as exemplified in the proof methodology inherent to formal mathematics. This course will include a formal study of logic and the different methods of proof and then use examples from various branches of mathematics to illustrate these ideas. Fields from which the examples will be taken include, but are not limited to, set theory, cardinality, relations and order, functions, elementary group theory, and elementary combinations.

MATH 301 DIFFERENTIAL EQUATIONS (3) *Strongly Recommended: MATH 211.* This course focuses on existence and uniqueness theorems; first order equations; linear, homogeneous, and non-linear equations; transform methods; numerical methods; and series solutions.

MATH 304 COLLEGE GEOMETRY (3) *Prerequisite: MATH 104.* This course covers the important aspects of Euclidean Geometry including topics involving angles, triangles, parallel and perpendicular lines, circles, polygons, similarity, areas, volumes, as well as various selected topics in mathematics from the recommended Standards of the National Council of Teachers of Mathematics (NCTM) and the PRAXIS II exam. It is also intended to give students further exposure to the art of formal proof writing in a setting where many steps of the proof can be displayed and explained visually.

MATH 307 LINEAR ALGEBRA (3) *Strongly recommended: MATH 260.* This course provides a study of linear transformations over vector spaces covering vectors, vector spaces, matrices, determinants, systems of linear equations, and linear transformations.

MATH 310 HISTORY OF MATHEMATICS (3) *Corequisite: MATH 260 or permission of instructor.* This course will introduce students to mathematics from a historical perspective. Course topics will include number theory, algebra, geometry and calculus.

MATH 311 PROBABILITY THEORY (3) *Prerequisite: MATH 104.* This course introduces mathematical probability theory using an axiomatic approach and considering numerous applications.

MATH 313 COMPLEX VARIABLES (3) *Prerequisite: MATH 211.* This course examines properties of complex numbers; elementary functions of a complex variable; complex derivatives and analytic functions; mappings; definite and indefinite integrals; Cauchy's theorem and integral formulas; Taylor and Laurent expansions; singular points and the residue theorem; conformal mapping with applications.

MATH 323 NUMBER THEORY (3) *Prerequisite: MATH 260.* This course deals with the properties of the set of integers. Topics considered include divisibility and division algorithm, congruences, quadratic residues, recurrence functions, diophantine equations, and continued fractions.

MATH 328 VECTOR ANALYSIS (3) *Strongly recommended: MATH 211.* This course includes vector algebra; vector geometry; vector functions; vector calculus: derivatives, gradient, curl, divergence, and Laplacian operators; line and surface integrals; Stokes' and Gauss' theorems; applications to physics; generalized coordinates; linear vector spaces.

MATH 333 MATHEMATICAL STATISTICS (3) *Prerequisite: MATH 104, 311.* This course provides a theoretical background and an introduction to statistics by examining the topics of graphical displays and statistical measures, random samples, sampling distributions, expected value, the Central Limit Theorem, properties of the methods to determine point estimates, probability distributions (e.g., normal, t, F, Chi-squared), confidence intervals, hypothesis testing, Type I and II errors, the power of tests, determining sample sizes, correlation, simple and multiple linear regression and analysis of variance.

MATH 350 EXPERIMENTAL MATHEMATICS (3) *Prerequisites: CS 131 or programming ability, and consent of the instructor.* This course will introduce students to the fine art of problem solving. The focus is on using computers, models, and examples to investigate problems rather than formal rigid processes to uncover a solution. Selected topics will include, but are not limited to, number theory, probability, mathematical modeling, graph theory, fractals, real analysis, and open math problems. This course

will fulfill a math elective requirement.

MATH 397 INDEPENDENT STUDY IN MATHEMATICS (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

MATH 398 SPECIAL TOPICS IN MATHEMATICS (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

MATH 399 INTERNSHIP IN MATHEMATICS (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* Students may earn college credit for participation in an internship with a business firm or agency, jointly supervised by the program and the responsible organization administrator. The internship is expected to provide the student with an opportunity to apply, in a practical way, some of the mathematical skills acquired. (See "Internships.")

MATH 405-406 ABSTRACT ALGEBRA (3, 3) *Prerequisite: MATH 260.* Three hours lecture each semester. This course sequence introduces students to algebraic concepts such as groups, rings, integral domains, and fields. The elementary number systems occupy a central place. Mappings, especially homomorphisms, are introduced fairly early and emphasized throughout.

MATH 407-408 ADVANCED CALCULUS (3, 3) *Prerequisite: MATH 260.* Three hours lecture each semester. This sequence introduces students to the foundations of analysis including a study of limits and continuity, functions of several variables, and finite and infinite series.

MATH 409 NUMERICAL ANALYSIS (3) *Prerequisite: MATH 211.* This course examines some commonly used numerical methods for the solutions of linear and non-linear equations and systems; difference calculus and interpolation; numerical differentiation and integration.

MATH 420 TOPOLOGY (3) *Prerequisite: MATH 260.* This course explores basic concepts of a topological space; continuous functions and mappings; separation axioms; metric spaces; deformations; and topology of plane sets.

MATH 451 SENIOR PROJECT (3) *Prerequisites: Senior standing and at least three mathematics courses numbered 300 or higher.* This course serves as a capstone for those students with a major in mathematics. The student does an intensive study of a mathematics topic of his/ her choice under a supervising professor. This study must involve a synthesis of available material on the topic including (but not limited to): traditional books, journal articles, and web-based materials. The student must write a research paper on the topic and present it to a faculty committee.

MUSEUM STUDIES COURSES (MST)

MST 101 INTRODUCTION TO MUSEUM STUDIES (3) This course is a survey of the history, mission, methods, contemporary applications, and future roles of museums. Images, text, and additional readings comprise the primary teaching aids, and the Daura Gallery and Historic Sandusky are used as teaching resources as well. Field trips are made to museums, especially those with disciplines other than art, to provide an understanding of all types of museums including art, material culture, natural history, anthropology, and historical sites.

MST 102 THE GREAT AMERICAN MUSEUM (1) Since the early 20th Century, American museums have been centers of education and interpretation (teaching through the use of original objects). This course focuses on one significant American museum through the examination of its history, mission, interpretation of its collection, and current educational and social roles. The course will be taught in the Fall semester from the opening day of classes through Fall Break. The course will culminate with travel to a selected museum over Fall Break. The trip and travel fee are required.

MST 201 CURATORIAL PRACTICES (3) This course focuses on the identification and understanding of tangible objects within the historical perspective, their relevance and use by museums of all types, and the application of curatorial methodology and care of collections. Historical, artistic, decorative, and scientific objects will be examined for authenticity, composition, history, and value. The Daura Gallery will be used as a teaching resource.

MST 301 LEGAL AND ETHICAL ISSUES IN MUSEUM STUDIES (3) This course examines the ethical and legal issues of governance, administration and collections management facing museums in the new millennium. LCSR.

MST 302 MUSEUMS IN THE PUBLIC DIMENSION (3) *Prerequisite: MST 101.* A course focusing on the theory and practice of museum education, exhibitions, and programming. As part of this course, students will curate an exhibition for the Daura Gallery. LCSR.

MST 304 HISTORICAL ARCHAEOLOGY (6) *Prerequisite: MST 101.* Historical Archaeology is an archaeology field school at Historic Sandusky, which provides a foundation in current methods and theories of historical archaeology, and offers a solid introduction to the practical skills of site survey, excavation, recording, and laboratory procedures.

MST 305 UNDERSTANDING THE HISTORIC HOUSE MUSEUM AS PUBLIC HISTORY (3) America's cultural heritage can be found in its people and its buildings. Preservation of social and cultural history is embodied in historic buildings. This course will provide an awareness and knowledge of the rich complexity of details and issues associated with the architectural restoration and public interpretation of historic properties. Through lectures, assigned readings, research assignments, and site visits, the course will focus on the philosophy, professional practices, and unique issues of interpreting historic house museums. In particular, the class has an opportunity to participate in the current process of documentation and interpretation associated with Historic Sandusky, a developing house museum in Lynchburg.

MST 377 STUDY ABROAD (3) *Prerequisite: MST 101.* This course is a specialized program for museum studies students to study abroad at museums in Europe, Asia, Australia, New Zealand, Africa, North America outside the U.S., or South America. Students will examine issues of cultural patrimony, and the similarities and differences between missions, collections, exhibitions, and public services of museums throughout the world.

MST 397 INDEPENDENT STUDY IN MUSEUM STUDIES (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

MST 398 SPECIAL TOPICS IN MUSEUM STUDIES (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

MST 399 INTERNSHIP IN MUSEUM STUDIES (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This internship in a museum, gallery, historic site, or science center must be appropriately related to the student's major and career objectives. (See "internships").

MUSIC COURSES (MUSC)

APPLIED MUSIC

Private instruction in applied music is available to all students. All work is adapted to the ability and needs of the individual student. An extra, non-refundable fee is required. For music majors whose applied lessons are in the area of their projected senior project, e.g., voice lessons toward a senior voice recital, the College will waive the lesson fee. Private lessons are courses that may be required of students to meet proficiency standards. Lessons begin in the second complete week of classes each semester. Normally, students will receive one lesson each week for thirteen weeks each semester. Private lessons are listed as "TBA" by the

Office of the Registrar. The student will arrange his/her lesson time. There is no overload fee for any of the applied music courses (001-010).

MUSC 001 Piano (.5 or 1)

MUSC 002 Organ (.5 or 1)

The beginning student in organ must display technical proficiency at the piano to the satisfaction of the instructor.

MUSC 003 Voice (.5 or 1)

MUSC 004 Woodwinds (.5 or 1)

MUSC 005 Brass (.5 or 1)

MUSC 006 Percussion (.5 or 1)

MUSC 007 Strings (.5 or 1)

MUSC 008 Composition (.5 or 1)

MUSC 010 Classical Guitar (.5 or 1)

MUSIC ENSEMBLES

College music ensembles are available to all students. Overload fees, if applicable, are waived by the College for any ensemble participation.

MUSC 016 PERCUSSION ENSEMBLE (1) *Corequisite: MUSC 021.* The purpose of this organization is to develop ensemble techniques by studying and performing both standard and contemporary percussion literature. The ensemble is open to all students and faculty/staff members of Lynchburg College as well as interested community members. Lynchburg College students are required to co-enroll in MUSC 021. An audition is required. Repeatable for credit.

MUSC 017 BRASS ENSEMBLE (1) *Corequisite: MUSC 021.* The purpose of this organization is to develop ensemble techniques by studying and performing both standard and contemporary brass literature. The ensemble is open to all students and faculty/staff members of Lynchburg College as well as interested community members. Lynchburg College students are required to co-enroll in MUSC 021. An audition is required. Repeatable for credit.

MUSC 018 ORCHESTRA (1) The purpose of this organization is to develop ensemble techniques, music reading ability, and general musicianship and to acquaint students with a wide variety of orchestra music. For music majors who will become teachers, the Orchestra will provide experience in organization, music selection, and program planning. The Orchestra performs numerous times a semester on campus and within the Central Virginia area. Open to all students by audition.

MUSC 019 CHAMBER MUSIC ENSEMBLE (1) This is an opportunity to be involved with the smaller, more intimate forms of music called chamber music. Instrumentalists and vocalists may create their own ensembles, which may include duo-piano or accompanying, but must meet two hours a week with music faculty supervision. Singers must have an ensemble with two or more instruments. Involvement must include a public performance each semester and, if one ensemble member is a music major, an appearance before the music faculty at the end of the semester.

MUSC 020 JAZZ ENSEMBLE (1) *Corequisite: MUSC 021.* An eighteen-piece ensemble comprised of saxophones, brass, percussion, and guitars. Membership is selected from the Wind Ensemble and/or by audition for interested students, faculty and staff members, alumni, and community musicians. Lynchburg College students are required to co-enroll in MUSC 021.

MUSC 021 WIND SYMPHONY (1) The purpose of this organization is to develop ensemble techniques, music reading ability, and general musicianship and to acquaint students with a wide variety of band music. For music majors who will become teachers, the Wind Ensemble will provide experience in organization, music selection, and program planning. The Wind Ensemble performs numerous times a semester on campus and within the Central Virginia area. Open to all students by audition.

MUSC 022 CONCERT CHOIR (1) The purpose of this ensemble is to rehearse and perform choral music from all major periods of choral literature, to learn some basic rudiments of singing and diction, and to develop general musicianship. The Concert Choir performs on campus and represents the College in concerts from New England to Florida. Open to all students by audition.

MUSC 023 HANDBELL CHOIR (1) The purpose of this ensemble is to rehearse and perform handbell music. The handbell choir presents concerts on campus and Christmas and in the spring. Open to all students. Basic music reading skills are required.

MUSC 024 CHAMBER CHOIR (1) *Prerequisite: Permission of the instructor.* Chamber Choir is a small, auditioned choral ensemble. The purpose of this ensemble is to rehearse and perform music written for small choral and chamber ensembles. Music will be selected from all major periods of music from the Medieval Age through the twenty-first century. Membership is open to Lynchburg College students by audition only.

MUSC 025 CHORAL UNION (1) The Choral Union is a non-auditioned large choral ensemble. The purpose of this choir is to provide a quality choral music experience for all its members. Membership is open to all students and faculty/staff members of Lynchburg College as well as interested community members. Since this choir is an open-membership choir for singers with various levels of musical skills, members will have ample opportunity to develop concepts of proper singing, including proper breathing, placement, intonation, balance, blending, and interpretation, while experiencing a wide variety of musical styles from the Medieval Age to the twentieth-century with an emphasis on major choral/orchestral works.

GENERAL MUSIC COURSES

MUSC 100 MUSIC APPRECIATION (3) This course is an introductory study of Western Art Music. Various elements, forms, and styles will be taught through listening, viewing videos, and discussing the great music of the Middle Ages, Renaissance, Baroque, Classical, Romantic, and Modern Periods.

MUSC 102 WORLD MUSIC AND CULTURE (3) This introductory course on non-Western music explores the relationship of music of various cultures to events important to those cultures.

MUSC 103 MUSIC FUNDAMENTALS (3) This course is designed for students with limited or no skills in the fundamentals of music theory. Topics include pitch and rhythm notation, time classification, note and rest values, time signatures, intervals, major and minor scales, key signatures, and triads.

MUSC 104-105 MUSIC THEORY I, II (3, 3) *Prerequisite for MUSC 104: MUSC 103 or equivalent.* This study of the basic harmonic practices of tonal composers includes scales, intervals, chords, notation, rhythms, figured bass, harmonic progression, melody writing, and modulation. These courses must be taken in sequence. MUSC 104 is offered each fall semester and MUSC 105 is offered each spring semester. Music majors must include MUSC 106-107 and MUSC 108-109 as corequisite requirements.

MUSC 106-107 AURAL SKILLS I, II (1, 1) *Corequisite for MUSC 106: MUSC 104 or its equivalent. Corequisite for MUSC 107: MUSC 105 or its equivalent.* This laboratory course is designed to increase skills in aural perception of music. Students develop skills in singing from notation and in notating music that they hear. These courses must be taken in sequence. MUSC 106 is offered each fall semester and MUSC 107 is offered each spring semester. Music majors must include MUSC 104-105 and MUSC 108-109 as corequisite requirements.

MUSC 108-109 PIANO CLASS I, II (1, 1) *Corequisite for MUSC 108: MUSC 104. Corequisite for MUSC 109: MUSC 105.* This laboratory course provides application of the principles of elementary theory to the keyboard. Students learn to play the major and minor scales, along with various harmonic formulae, and learn to improvise accompaniments to simple melodies. These courses must be taken in sequence. MUSC 108 is offered each fall semester and MUSC 109 is offered each spring semester. Successful completion of the Piano Proficiency Exam may substitute for these courses. Music majors must include MUSC 104-105 and MUSC 108-109 as corequisite requirements.

MUSC 110 VOICE CLASS (1) This group study of the fundamentals of singing involves the principles of phonation, resonance, diction, breathing, and other related techniques pertinent to producing a good singing tone, using selected rhythmic exercises and singing materials. Recommended especially for music theatre students, teachers of public school music, choir directors, ministerial students, and directors of religious education.

MUSC 111 MUSIC TECHNOLOGY (2) *Prerequisite: must be able to read music.* The purpose of this course is to provide a hands-on study of current technologies used in the elementary and secondary

classroom as well as by performing musicians. Topics include office/music software, video/audio digital recording and editing, and music notation software including, but not limited to Sibelius and Finale. An introduction to U. S. Copyright law as it applies to musicians is also covered in this course.

MUSC 204-205 MUSIC THEORY III, IV (3, 3) *Prerequisite: MUSC 105.* This course is a continuation and elaboration of tonal harmony as begun in MUSC 104-105 with in-depth study of eighteenth-century counterpoint, chromatic harmony, rudiments of form and analysis, the large instrumental forms, extended harmony and twentieth-century compositional techniques. Most assignments will be analytical in nature while a few will require the student to compose. These courses must be taken in sequence. MUSC 204 is offered each spring semester and MUSC 205 is offered each fall semester. Music majors must include MUSC 206-207 and MUSC 208-209 as correlative requirements.

MUSC 206-207 AURAL SKILLS III, IV (1, 1) *Corequisite for MUSC 206: MUSC 204 or its equivalent. Corequisite for MUSC 207: MUSC 205 or its equivalent.* This laboratory course sequence is a continuation of MUSC 106-107. These courses must be taken in sequence. MUSC 206 is offered each spring semester and MUSC 207 is offered each fall semester.

MUSC 208-209 PIANO CLASS III, IV (1, 1) *Prerequisite: MUSC 109 or its equivalent. Corequisite for MUSC 208: MUSC 204. Corequisite for MUSC 209: MUSC 205.* This sequence is a continuation of MUSC 108-109. These courses must be taken in sequence. MUSC 208 is offered each spring semester and MUSC 209 is offered each fall semester. These courses each meet for two fifty-minute sessions per week. Successful completion of the Piano Proficiency Exam may substitute for these courses.

MUSC 211 DIGITAL AUDIO TECHNIQUES (2) *Prerequisite: COMM 104 or MUSC 111.* This course provides students with opportunities for practical application of digital audio and its various audio, digital, and recording techniques. Topics include microphone types, use, and placement; field recording; audio software; mixing; and overdubbing. In addition, students will work with vocalists and instrumentalists for live recording opportunities.

MUSC 215 JAZZ AND THE ORIGINS OF ROCK MUSIC (3) This course will examine the history of jazz and rock music. A thorough examination of the musical elements of the genres will be accompanied by study of the social/cultural contexts that contribute to the artistic developments of jazz and rock music.

MUSC 223 CHORAL METHODS (2) A hands-on study of vocal-choral pedagogy for secondary/elementary music educators. This course explores theories and practices of vocal pedagogy, repertoire, rehearsal procedures, and administration of choral music education.

MUSC 224 WOODWIND METHODS (1) Class instruction in woodwind instruments includes basic playing techniques, teaching methods, and materials. (Required for public school music licensure in instrumental music.)

MUSC 225 BRASS METHODS (1) Class instruction in brass instruments includes basic playing techniques, teaching methods, and materials. (Required for public school music licensure in instrumental music.)

MUSC 226 PERCUSSION METHODS (1) Class instruction in percussion instruments emphasizes the snare drum including basic playing techniques, teaching methods, and materials. (Required for public school music licensure in instrumental music.)

MUSC 227 STRING METHODS (1) Class instruction in string instruments emphasizes the violin including basic playing techniques, teaching methods, and materials. (Required for public school music licensure in instrumental music.)

MUSC 228 INSTRUMENTAL SURVEY (2) Class instruction in brass, woodwinds, string, and percussion instruments including basic playing techniques, teaching methods, and materials. (Required for licensure in public school vocal/general music.)

MUSC 240 DICTION FOR SINGERS I (1) An introduction to phonetics as well as the practical applications for pronunciation fundamentals in the English, Latin, and Italian languages through the use of

the International Phonetic Alphabet (IPA) and appropriate art song repertoire.

MUSC 241 **DICTION FOR SINGERS II (1)** *Prerequisite: MUSC 240.* An introduction to phonetics as well as the practical applications for pronunciation fundamentals in the German and French languages through the use of the International Phonetic Alphabet (IPA) and appropriate art song repertoire.

MUSC 248-249 **CONDUCTING I, II (2, 2)** This course sequence is a study of the techniques of conducting instrumental and choral ensembles, including practical experience in conducting various ensembles.

MUSC 302-303 **MUSIC HISTORY AND LITERATURE I, II (3, 3)** This survey of music literature acquaints the student with the musical styles of important periods and with the composers from the age of plainsong to the present.

MUSC 306W **FORM AND ANALYSIS [Writing Enriched] (3)** *Prerequisites: ENGL 111W-112W or ENGL 223W, MUSC 205.* This course is a study of the structure of musical composition from the basic components to large composite units.

MUSC 307 **COUNTERPOINT (3)** *Prerequisite: MUSC 205.* This course studies contrapuntal styles of the sixteenth and eighteenth centuries.

MUSC 308 **TWENTIETH CENTURY MUSIC AND THEORY (3)** *Prerequisite: MUSC 205.* This course is an in-depth study of the music and theory of the twentieth century.

MUSC 350 **VOCAL PEDAGOGY AND LITERATURE (3)** *Prerequisite: Open to students with at least four semesters applied vocal music instruction.* This course involves the study of the anatomy and physiology of the larynx, breathing mechanism, and skeletal structure as it relates to singing. Related topics include phonation, resonance, vowel fragments, registers, timbre, vocal health, vocal literature, and contest music. Practical application of applied voice lessons emphasized.

MUSC 351 **INSTRUMENTAL PEDAGOGY AND LITERATURE (3)** *Prerequisite: Open to students with at least four semesters of applied instrumental music instruction.* This course acquaints the student with current methods, issues, and materials in instrumental teaching and their practical applications.

MUSC 363 **MUSIC IN ELEMENTARY AND SPECIAL EDUCATION (3)** *Prerequisite: MUSC 105.* This course provides materials and methods for pre-kindergarten through elementary school and for special populations in public schools and special settings.

MUSC 364 **FIELD EXPERIENCE I (LAB)-MUSIC IN ELEMENTARY AND SPECIAL EDUCATION (1)** *Corequisite: MUSC 363.* This lab experience is designed to provide opportunities for application of pedagogical theories and techniques in the music classroom in elementary school.

MUSC 365 **MUSIC IN SECONDARY EDUCATION (3)** *Prerequisite: MUSC 105.* This study of the philosophy of music education and the principles and techniques of teaching music in the secondary school offers observation, demonstration, and individual guidance in the areas of vocal, instrumental, and general music.

MUSC 366 **FIELD EXPERIENCE II (LAB)-MUSIC IN SECONDARY EDUCATION (2)** *Corequisite: MUSC 365.* This lab experience is designed to provide opportunities for application of pedagogical theories and techniques in the music classroom in secondary school.

MUSC 397 **INDEPENDENT STUDY IN MUSIC (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

MUSC 398 **SPECIAL TOPICS IN MUSIC (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

MUSC 399 **INTERNSHIP IN MUSIC (1-12)** *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This course is a practical application of music in the professional world. Possible areas include music management, music merchandising, church music, music in the theatre, and music in some private educational settings. (See "Internship.")

MUSC 400 **ARRANGING AND ORCHESTRATION (2)** *Prerequisites: Successful completion of MUSC 205 and 306.* This course introduces the musical craft of arranging as related to the setting of music for various combinations of instruments and voices. Topics will include transpositions and practical ranges for instruments and voice. Students will participate in class exercises, prepare weekly arrangements, and complete a final project.

MUSC 402W **SENIOR SEMINAR IN MUSIC PERFORMANCE [Writing Enriched] (2)** *Prerequisites: ENGL 111W-112W or ENGL 223W, MUSC 306.* This course introduces performance and analysis techniques in music with links to literature performed in senior recital for music performance and music education emphasis students. This course involves a substantial amount of oral presentation by students, in addition to writing program notes for the senior recital. This course will culminate with the performance of a senior recital.

MUSC 460 **STUDENT TEACHING IN MUSIC (12)** *Prerequisite: Admission to student teaching.* This course is a culminating, full-time, supervised field experience at two levels of music instruction, for a minimum of 200 hours of "in charge" teaching. Vocal/general or instrumental classes are assigned to satisfy the desired endorsement area. Biweekly support team meetings with fellow student teachers, College supervisor, and clinical faculty consider such issues as planning, classroom, management, and interaction with parents. Required for music teacher licensure. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

NURSING COURSES (NRSRG)

NRSRG 220 **PATHOPHYSIOLOGY (3)** *Prerequisites: CHEM 127, BIOL 222/222L (C or better for all), NRSRG 225 (B- or better). Prerequisite or corequisite BIOL223/223L (C or better).* This course introduces the student to major concepts and commonly used terminology related to pathology in each organ system. Selected pathophysiological phenomena, common disease processes, conditions and injuries are analyzed relative to their clinical manifestations and implications for nursing management.

NRSRG 225 **NURSING FUNDAMENTALS (3)** *Prerequisite: CHEM 127 (C or better). Prerequisites or corequisites: BIOL 222/222L, BIOL223/223L (C or better).* This course introduces students to concepts, theories, and standards of nursing practice in today's evolving health care systems. Students use the nursing process to examine normal developmental changes across the lifespan from childhood to older adult. Critical thinking is examined as a basis for decision-making in nursing and emphasis is placed on developing therapeutic nursing interventions and communication skills. Laboratory learning activities provide the student opportunities to practice and demonstrate skill proficiency in a simulated setting.

NRSRG 225L **NURSING FUNDAMENTALS LAB (1)** *Prerequisites: CHEM 127, BIOL 222/222L (C or better for all), NRSRG 225 (B- or better). Prerequisite or corequisite: BIOL223/223L (C or better).* Laboratory learning activities provide the student opportunities to practice and demonstrate skill proficiency in a simulated setting.

NRSRG 232 **HEALTH ASSESSMENT (2)** *Prerequisites: CHEM 127, BIOL 222/222L (C or better for all), NRSRG 225 (B- or better). Prerequisite or corequisite: BIOL223/223L (C or better).* In this course students are introduced to a comprehensive, systematic approach to health assessment. Students learn the components of a complete health history, including interviewing and documentation. In addition, students are introduced to the techniques of physical assessment and practice in a laboratory setting.

NRSRG 232L **HEALTH ASSESSMENT LAB (1)** *Prerequisites: CHEM 127, BIOL 222/222L (C or better for all), NRSRG 225 (B- or better). Prerequisite or corequisite: BIOL223/223L (C or better).* Three-hour skills laboratory must be taken concurrently with NRSRG 232.

NRSRG 300 **NURSING PHARMACOLOGY (3)** *Prerequisites: BIOL 214/214L and 215/215L or BIOL 222/222L and 223/223L (C or better).* This course establishes a knowledge base in pharmacology and

provides an opportunity to investigate pharmacological principles. Students will focus on the relationship between pharmacological knowledge, nursing practice, and athletic training. Drug prototypes, mechanisms of action, and the implications for clinical management are discussed.

NRSRG 300L NURSING PHARMACOLOGY LAB (1) *Prerequisites: Completion of nursing pre-requisite courses; corequisite or prerequisite: NRSRG 300; concurrent enrollment in 300 level clinical nursing courses required.* The pharmacology lab focuses on principles of safe medication administration. It provides psychomotor skill development opportunities as well as clinical practice simulations.

NRSRG 335 NURSING CARE OF CHILDBEARING FAMILY (3) *Prerequisites: NRSRG 220 (C or better), 225/225L, 232/232L (B- or better); corequisite or prerequisite: NRSRG 300/300L (B- or better).* This course applies the nursing process to the care of well and high-risk pregnant women and their families within the context of their environment. Students will use critical thinking to explore concepts of normal pregnancy, growth and development, the childbirth process, and women with high-risk pregnancies. Theory, research, and evidence-based practice are foundations.

NRSRG 335L NURSING CARE OF CHILDBEARING FAMILY LAB (1) *Prerequisites: NRSRG 220, 225/225L, 232/232L (B- or better); corequisite or prerequisite: NRSRG 300/300L (B- or better). Must be taken concurrently with NRSRG 335.* Students apply concepts, principles, theories, and skills in the nursing care of well, acutely ill and high-risk pregnant women and their families in the hospital and community settings. Students are exposed to a wide variety of clinical skills gaining beginning practice in planning and facilitating nursing care for pregnant women and their families.

NRSRG 336 NURSING CARE OF CHILDREN AND FAMILIES (3) *Prerequisites NRSRG 220, 225/225L, 232/232L (B- or better); corequisite or prerequisite: NRSRG 300/300L (B- or better).* This course applies the nursing process to the care of well, acutely and chronically ill, and special needs children and their families within the context of their environment. Emphasis is on anatomical, physiological and developmental differences among neonates, infants, children and adolescents that influence care. Theory, research, evidenced-based practice and critical thinking are foundations.

NRSRG 336L NURSING CARE OF CHILDREN AND FAMILIES LAB (1) *Prerequisites: NRSRG 220, 225/225L, 232/232L (B- or better); . corequisite or prerequisite: NRSRG 300/300L (B- or better). Must be taken concurrently with NRSRG 336.* Students apply concepts, principles, theories, and skills in the nursing care of well, acutely or chronically ill children and families. In hospital and community settings, students are exposed to a wide variety of clinical skills gaining beginning practice in planning and facilitating nursing care for children and their families.

NRSRG 397 INDEPENDENT STUDY IN NURSING (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

NRSRG 341 MEDICAL SURGICAL NURSING I (3) *Prerequisites: NRSRG 220, 225/225L, 232/232L (B- or better).* This course focuses on care of the adult individual who is experiencing an acute illness. Students integrate the nursing process as preparation for care of individuals in acute care settings. The student functions in a variety of roles and partners with health team members to provide appropriate care to assigned clients.

NRSRG 341L MEDICAL SURGICAL NURSING I LAB (2) Six-hour clinical laboratory must be taken concurrently with NRSRG 341.

NRSRG 342 MEDICAL SURGICAL NURSING II (3) *Prerequisites: NRSRG 300/300L, 341/341L (B- or better).* This course focuses on care of individuals and families with alterations in health. Students explore the impact of illness on individuals and families in home health and community-based settings. In addition, students examine the influence of political, economic, and social factors on the delivery of home health care.

NRSRG 342L MEDICAL SURGICAL NURSING II LAB (2) Three-hour clinical laboratory must be taken concurrently with NRSRG 342.

NRSG 398 SPECIAL TOPICS IN NURSING (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

NRSG 399 INTERNSHIP IN NURSING (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator; and supervising faculty prior to registration.* A limited number of internships are available that allow junior and senior nursing majors to have additional opportunities to work in an agency setting under direct supervision. (See "Internships.")

NRSG 402 PROFESSIONAL NURSING SEMINAR (2) *Prerequisite: Senior standing.* The student examines historical, legal, ethical, and economic factors which impact contemporary nursing practice. Students explore ways nursing professionals can impact health care delivery and policy, and analyze selected issues relevant to contemporary nursing. Strategies for transition from the role of student to professional nurse are emphasized.

NRSG 410 CLINICAL MANAGEMENT AND RESEARCH PROJECT (3) *Prerequisites: NRSG 335/335L, 336/336L, 342/342L, 412 (B- or better).* In this course, students examine their roles as leaders and managers in a variety of health care settings. Concepts such as organizational theory, leadership style, change, time management, finance, quality improvement, and conflict resolution are discussed. Teaching strategies emphasize the use of student teams and computer technology to complete course objectives.

NRSG 412 NURSING RESEARCH AND EVIDENCE BASED PRACTICE (2) *Prerequisites: NRSG 335/335L, 336/336L, 342/342L (B- or better); corequisite or prerequisite: MATH 222 (C or better).* In this course students are introduced to evidence based practice and the research process in nursing. Content focuses on critically evaluating research evidence and applying it to nursing problems. Students develop the beginning skills in critiquing evidence through quantitative and qualitative methodologies.

NRSG 418 COMMUNITY HEALTH AND PSYCHIATRIC MENTAL HEALTH NURSING (3) *Prerequisites: NRSG 335/335L, 336/336L, 342/342L (B- or better).* Students expand the use of the nursing process with a focus on health promotion/disease prevention as it relates to psychiatric-mental health and community nursing. Students explore the use of evidenced based practice through the use of research studies to promote health for individuals in the psychiatric-mental health and community settings.

NRSG 418L COMMUNITY HEALTH AND PSYCHIATRIC MENTAL HEALTH NURSING LAB (2) *Prerequisites: NRSG 335/335L, 336/336L, 342/342L (B- or better).* This is a six hour laboratory experience encompassing community health and psychiatric mental health settings. It must be taken concurrently with NRSG 418. The roles and activities of the nurse will vary depending on the agency and population served.

NRSG 419 SYNTHESIS PRACTICUM (3) *Prerequisites: NRSG 412,418/418L, 420, 428/428L (B- or better); corequisite: NRSG 410 (B- or better); corequisite or prerequisite: NRSG 402 (B- or better).* This course emphasizes the synthesis and application of concepts, principles, and skills learned in prerequisite nursing courses. Students are given the opportunity to have intensive clinical experiences in selected clinical settings. Clinical experience is directed by faculty and supervised by clinical preceptors in a variety of settings.

NRSG 420 SEMINAR IN PUBLIC HEALTH (1) *Prerequisites: NRSG 335/335L, 336/336L, 342/342L (B- or better).* This public health course provides a theoretical basis for practice in the field of population and societal health. Public Health nursing content covers public and private health care systems, epidemiology, chronic and communicable disease prevention and control, environmental health, emergency preparedness, and nursing care of community based populations. Current trends and issues in local, national, and international public health are examined.

NRSG 428 CARE OF ADULTS WITH COMPLEX ILLNESSES (3) *Prerequisites: NRSG 335/335L, 336/336L, 342/342L (B- or better).* This course prepares students to provide care to adults with moderate to severe alterations in health. Critical thinking is incorporated into written and verbal communications as students synthesize knowledge and integrate a variety of nursing skills.

NRS 428L CARE OF ADULTS WITH COMPLEX ILLNESSES LAB (2) Six-hour clinical laboratory must be taken concurrently with NRS 428.

NRS 440 HEALTH ASSESSMENT (2) *Corequisite: NRS 442.* In this course, RN students are introduced to a comprehensive, systematic approach to physical assessment. They will refine critical thinking skills to collect and organize subjective and objective health assessment data. Only RNs who are enrolled in the RN to MSN program may take this course.

NRS 442 NURSING RESEARCH AND EVIDENCE-BASED PRACTICE (2) *Corequisite: NRS 440.* In this course students are introduced to the research process in nursing and evidence-based nursing practice. Content focuses on problem identification, literature review, research design, sampling, data collection, analysis and interpretation of findings. Selected examples of nursing research are critiqued and evaluated for application to clinical settings. Students develop the beginning skills needed to be consumers of research and to evaluate the evidence to determine the best practice. Only registered nurses enrolled in the RN to MSN program may take this course.

NRS 446 COMMUNITY AND PUBLIC HEALTH NURSING (3) *Prerequisites: NRS 440, 442.* In this course students expand the use of the nursing process to provide nursing care to population groups and communities through the application to case studies and the exploration of evidence-based practice. This course can only be taken by registered nurses enrolled in the RN to MSN program.

NRS 448 NURSING LEADERSHIP (2) *Prerequisites: NRS 440, 442, 446.* In this course students examine their roles as leaders and managers in a variety of health care settings. Concepts such as organizational theory, leadership style, change management, team building, finance, quality improvement, conflict resolution and career related issues are discussed. Teaching strategies emphasize the use of student groups, discussion and team work to complete course objectives. This course can only be taken by registered nurses who are enrolled in the RN to MSN program.

PHILOSOPHY COURSES (PHIL)

PHIL 200W INTRODUCTION TO PHILOSOPHY [Writing Enriched] (3) *Corequisites or pre-requisites: ENGL 111W-112W or ENGL 223W.* This course examines traditional philosophy problems with readings from major works in the history of Western philosophy. The basic principle of logic and major approaches to ethical decision-making are important parts of the course.

PHIL 201 INTRODUCTION TO LOGIC (3) This beginning course focuses on aspects of valid and invalid reasoning. Topics include definition, fallacious argumentation, the various uses to which language may be put, and elementary deduction.

PHIL 204 INTRODUCTION TO ETHICS (3) This course introduces moral philosophy and its application to the problems of present-day living.

PHIL 214 GREEK PHILOSOPHY (3) *Prerequisite: PHIL 200 or 204.* This introduction to Greek philosophy focuses primarily on Plato and Aristotle.

PHIL 215 MEDIEVAL PHILOSOPHY (3) *Prerequisite: PHIL 200 or 204.* Philosophical themes of the Middle Ages are related to the Neoplatonic and Aristotelian traditions as they influenced major thinkers of the period. Topics include wisdom as the goal of inquiry; the relation between faith and reason; the existence of God; the nature of humanity; and the immortality of the soul.

PHIL 216 MODERN EUROPEAN PHILOSOPHERS (3) *Prerequisite: PHIL 200 or 204.* This study of seventeenth- and eighteenth-century European philosophers includes Descartes, Locke, Berkeley, Hume, and Kant.

PHIL 217 CLASSIC AMERICAN PHILOSOPHERS (3) *Prerequisite: PHIL 200 or 204.* This course is an analysis of the philosophy writings of major American philosophers from the Pragmatic and Idealistic schools including Charles Sanders Peirce, William James, and John Dewey.

PHIL 220 ART, TRUTH, AND VALUE (3) *Prerequisite: PHIL 200 or 204.* An introduction to

the philosophy of the fine arts, this course includes an examination of various definitions of art, discussions of the value of art to society, and an analysis of emotions found in the esthetic experience.

PHIL 221 MEANING AND EXISTENCE (3) *Prerequisite: PHIL 200 or 204* This course examines the existential nature of human beings as they encounter and search for meaning in existence. Topics for discussion include such existential themes as authenticity, guilt, personal freedom, and the meaning of death. Course readings include the writings of theistic and atheistic existentialists.

PHIL 222 GOD, FAITH, AND EVIL (3) *Prerequisite: PHIL 200 or 204.* This course examines philosophical problems relating to religious faith.

PHIL 223 ETHICAL ISSUES IN BUSINESS (3) *Prerequisite: PHIL 200 or 204.* This course examines moral issues related to business, including conflicts of interest, the social responsibility of corporations, affirmative action, and preferential treatment.

PHIL 224 ETHICAL ISSUES IN MEDICINE (3) *Prerequisite: PHIL 200 or 204.* This course analyzes moral issues related to the areas of health care such as informed consent, abortion, physician-patient relationship, and the just distribution of health care.

PHIL 225 ENVIRONMENTAL ETHICS (3) *Prerequisite: PHIL 200 or 204.* An introduction to ethical issues and approaches concerning environmental studies. Topics to be addressed include the application of moral theory to various significant environmental issues, ethical treatment of animals, private ownership versus the common good, public policy and environmental concerns, and justice to current and future generations of humans.

PHIL 305 PHILOSOPHY OF SCIENCE (3) *Prerequisite: PHIL 200 or 204.* This introduction to the philosophy of science includes a study of the concepts of the empirical sciences, their methods and procedures, and their philosophical implications.

PHIL 306 KNOWLEDGE AND REALITY (3) *Prerequisite: PHIL 200 or 204.* This examination of the nature of knowledge places emphasis on the distinction between knowledge and belief, different types of knowing, the problem of skepticism, the role of perception in knowledge, and the nature of truth.

PHIL 313 SYMBOLIC LOGIC (3) *Prerequisite: PHIL 200 or 204.* This beginning course in symbolic formal logic introduces students to the formalization of arguments and the formal nature of deduction.

PHIL 314 THE MIND AND BRAIN (3) *Prerequisite: PHIL 200 or 204.* This course is an examination of various theories of what the mind is and its relation to the body. Concepts such as consciousness, belief, sensation, perception, and desire are discussed.

PHIL 315 THE PHILOSOPHY OF LAW (3) *Prerequisite: PHIL 200 or 204.* This course is an examination of various theories of what a legal system is. Attention is given to a number of related issues including the role of morality in the formation of a legal system, legal justice, the proper limits of state authority over an individual citizen's autonomy, and theories of punishment.

PHIL 397 INDEPENDENT STUDY IN PHILOSOPHY (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

PHIL 398 SPECIAL TOPICS IN PHILOSOPHY (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

PHIL 400 THESIS GUIDANCE (3) *Prerequisites: PHIL 200 or 204, and senior standing.* Supervision of senior thesis. Topic to be decided by student with approval of advisor.

PHYSICS COURSES (PHYS)

PHYS 131 **PHYSICS OF SPORTS (4)** The main goal of the course is to learn how to apply basic physics to the sports world. Learning how a scientist models the real world and conceptual understanding will be emphasized more than rigorous mathematical derivations. Project development will occupy the majority of the laboratory portion of the course. A proficiency in algebra and trigonometry is required to be successful in this course.

PHYS 141 **COLLEGE PHYSICS I (4)** Three hours lecture and two hours laboratory. Designed for students majoring in the natural sciences, this course will cover classical mechanics, properties of matter, waves, sound, and thermodynamics. A proficiency in algebra and trigonometry is required to be successful in this course.

PHYS 142 **COLLEGE PHYSICS II (4)** *Prerequisite: PHYS 141 or 161.* Three hours lecture and two hours laboratory. Designed for students majoring in the natural sciences, this course will cover electricity, magnetism, optics, and modern physics. A proficiency in algebra and trigonometry is required to be successful in this course.

PHYS 161 **PHYSICS I (4)** *Prerequisite: MATH 103 or concurrent enrollment in MATH 103.* Three hours lecture and two hours laboratory. This course is a calculus-based survey of classical physics, providing a background for persons who intend to use physics as a base for the physics major or for other science disciplines. The first semester introduces the student to Newton's laws including their application to statics and dynamics: to momentum and energy and their respective conservation principles; to rotational and angular quantities: and, if time allows, to the basic ideas of heat and thermodynamics.

PHYS 162 **PHYSICS II (4)** *Prerequisite: MATH 103, 104 (or concurrent enrollment in MATH 104), PHYS 141 or 161.* Three hour lecture and two hours laboratory. This continuation of a calculus based survey of classical physics introduces students to the physics of waves, including sound, to basic electromagnetic theory and optics.

PHYS 181 **ASTRONOMY: THE SOLAR SYSTEM (4)** Three hours lecture and two hours lab. Basic overview of the properties of the planets, satellites, and minor members of the solar system. No prior experience in astronomy is required. Course meets the general education laboratory science requirement.

PHYS 182 **ASTRONOMY: THE UNIVERSE (4)** Three hours lecture and two hours lab. Basic overview of current knowledge about the universe beyond the solar system. No prior experience in astronomy is required; course meets the general education laboratory science requirement.

PHYS 211 **PHYSICS III (4)** *Prerequisite: MATH 211 (or concurrent enrollment in MATH 211) and PHYS 162.* Three hours lecture and three hours laboratory. Topics include thermodynamics, waves, and what is called traditionally "modern physics." This latter topic is a study of twentieth century developments in physics including an introduction to condensed matter physics, relativity, atomic physics, radioactivity, wave-particle duality, and nuclear processes.

PHYS 302 **PHYSICS IV (4)** *Prerequisites: MATH 211, PHYS 211. Corequisite: MATH 301.* This course prepares physics majors for the study of physics at the intermediate and advanced levels. We introduce and develop the following: new mathematical methods of physics, computational techniques, laboratory skills, and scientific writing. We also introduce students to physics research currently being carried on at Lynchburg College.

PHYS 309 **CLASSICAL MECHANICS (4)** *Prerequisite: PHYS 302.* Three hours lecture and one-hour problem session. This course introduces the study of kinematics, particle dynamics, central forces and planetary motion, and rigid-body motion. The Lagrange and Hamilton formulations of mechanics are also introduced.

PHYS 312 **ELECTROMAGNETIC THEORY (4)** *Prerequisite: PHYS 302.* Three hours lecture and three hours laboratory. This course introduces students to DC and AC circuits, electrostatics and magnetostatics in free space and materials, Maxwell's equations, boundary conditions, and electromagnetic waves.

PHYS 318 **QUANTUM MECHANICS (4)** *Prerequisite: PHYS 302.* Three hours lecture and one-hour problem session. This course introduces the methods of quantum theory. The Schrodinger approach is developed and is applied to the hydrogen atom, angular momentum, scattering theory, time-independent perturbation theory, and other topics.

PHYS 333 **COMPUTATIONAL PHYSICS (4)** *Prerequisite: PHYS 302.* Three hours lecture and one-hour problem session. This course develops the application of higher mathematics and the computer to the analysis and simulation of realistic physical systems. Topics covered typically include finite-difference approximations, Fourier analysis, Fourier transforms, Fast Fourier transforms, numerical integration, applications of Monte Carlo methods, solutions of differential equations, numerical solutions of Laplace's equation, and the application of matrix methods. Symbolic mathematical software is also introduced.

PHYS 397 **INDEPENDENT STUDY IN PHYSICS (1-4)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

PHYS 398 **SPECIAL TOPICS IN PHYSICS (1-4) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

PHYS 432 **OPTICS (4)** *Prerequisite: PHYS 312.* Three hours lecture and three hours laboratory. A study is made of the properties of electromagnetic waves, particularly in the visible spectrum. Wave descriptions of scattering, reflection, interference, diffraction, and polarization are developed. The course also treats aspects of geometrical optics, including lenses and lens defects.

PHYS 436 **STATISTICAL THERMODYNAMICS (4)** *Prerequisite: PHYS 302.* Three hours lecture and one-hour problem session. Microscopic analysis of the physical world is developed using statistical methods. Macroscopic thermodynamics is then developed from microscopic results. More formal ideas of classical statistical thermodynamics, including the partition function, are then studied. Quantum statistical mechanics is also introduced.

POLITICAL SCIENCE COURSES (POLI)

POLI 111-112 **THE QUEST FOR JUSTICE I, II (3, 3)** A sequence of readings and discussions develop the student's grasp of the basic issues that underlie the political dynamism of Western society. Special emphasis is given to the moral and philosophical dimensions of these issues and their relationship to current political questions and the concerns of other academic disciplines. Reading, class discussions, and written assignments are drawn from classic works in politics, economics, philosophy, and literature.

POLI 207 **COMPARATIVE POLITICS (3)** An introduction to political cultures and systems around the world, with emphasis on political behavior, competing ideologies, government institutions, and historical roots and contemporary manifestations of societal conflicts and divisions. Issues of political development, continuity and change will be addressed throughout the course, with brief case studies used to explore the above concepts more in depth.

POLI 220 **THE AMERICAN POLITICAL EXPERIENCE (3)** Students will explore the American constitutional order and political system in terms of two questions: what does the American government do? What should it do? This exploration will be conducted through the critical analysis of literature, primary historical sources, significant government documents, and social science research.

POLI 221 **AMERICAN POLITICAL CULTURE (3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course is a survey and critique of the meanings attributed to various aspects of the American constitutional order and the politics associated with it. Classic American literature including fiction and non-fiction, films, primary historical sources, significant government documents, and social science research are assigned to promote student debate and discussion of each aspect of the course.

POLI 253 CLASSICAL POLITICAL THOUGHT (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course is a study of the leading classical and medieval political thinkers including Plato, Aristotle, and Augustine with emphasis on reading and discussing their works.

POLI 254 MODERN POLITICAL THOUGHT (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course is a study of the leading modern political thinkers including Machiavelli, Hobbes, Locke, Rousseau, and Marx with emphasis on reading and discussing their works.

POLI 257 CAMPAIGNS, ELECTIONS, AND PROPAGANDA (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course reviews the place of elections in American constitutional order as the principal mode of citizen participation and of campaigns to influence those elections. Particular attention is given to contemporary reliance on paid advertising, including direct mailing and television, and questions of campaign finance and corruption. Critical attention is directed to the replacement of public policy debate by the images and rhetoric of celebrity culture.

POLI 258 STATE AND LOCAL GOVERNMENT AND POLITICS (3) *Prerequisite: INTL 101, POLI 111, or 112.* An examination of the use of governmental power influences daily life in often unrecognized ways and how that power is exercised by administrators. Particular attention will be given to situations that appear to display breakdowns in policy or in its execution, and on conflicting values of democratic political practice and administrative effectiveness.

POLI 259 POWER, THE STATE, AND BUREAUCRACY (3) *Prerequisite: INTL 101, POLI 111, or 112.* An examination of how the use of governmental power influences daily life in often unrecognized ways and how that power is exercised by administrators. Particular attention will be given to situations that appear to display breakdowns in policy or in its execution and on conflicting values of democratic political practice and administrative effectiveness.

POLI 260 HONOR AND TERROR POLITICS: SOUTH ASIA (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course is a survey of contemporary political and governmental processes and institutions of southern Asia with particular attention given to the colonial legacy, post-independence political institutions, the processes of political evolution, the role of religion in politics, and foreign policy responses to big-power rivalry in the region.

POLI 265 GROWLING TIGERS, FIERY DRAGONS: THE ASIA PACIFIC (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course offers a survey of the political traditions and contemporary political practice of major East Asian societies including those of China, Japan, and Korea. The primary focus is a comparison of contemporary political development, government institutions, domestic issues, and foreign policies within and among the countries of the region.

POLI 275 LATIN AMERICAN POLITICS (3) *Prerequisite: INTL 101, POLI 111, or 112.* An analysis of the political systems of Latin America, this course examines political development from the colonial period to the present as well as the principal actors of the Catholic Church, the military, labor, and political parties. Study of links between politics and economic underdevelopment and the influence of the United States in the region are included. The history and future of democracy in the region are considered.

POLI 283 EUROPEAN UNION POLITICS (3) *Prerequisite: INTL 101, POLI 111, or 112.* This course analyzes the governmental structures and politics in France, Germany, and other European nations. Attention is also given to European organizations such as NATO, the European Union (EU), and the reforming political systems in southern and eastern Europe. Students participate in a simulation of the European Union.

POLI 285 EUROPEAN UNION LEADERSHIP (1) *Prerequisites: POLI 283 and permission of instructor.* The course offers an in-depth exploration of the functions, institutions, and decision-making procedures of the European Union. The emphasis will be on a realistic representation of members of the major institutions and bodies of the EU: the Commission, the European Council, and the Council of Ministers.

POLI 290 AMERICAN PUBLIC POLICY (3) *Prerequisite: POLI 111 or 112.* This course will examine American public policy from three perspectives. First, students will explore the broad context of policy-making, including the historical, political, and economic contexts, with special emphasis placed on American federalism. Second, students will be introduced to models of the policy process, agenda setting and decision-making. Finally, students will learn about policy implementation and analysis.

POLI 296 **RUSSIA AND THE EUROPEAN NEIGHBORHOOD (3)** *Prerequisites: INTL 101, POLI 112 or POLI 201.* The course analyzes the political cultures, governmental institutions, and political behavior in European countries that are not members of the European Union, mostly in Eastern and Southeastern Europe, especially Russia. The emphasis is on explaining contemporary developments in this rapidly evolving region against the backdrop of long-term trends and recent transitions. Russia's growing role in the region and around the globe will be discussed.

POLI 301 **DEVELOPING WORLD (3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course provides an examination of developing nations with a view toward understanding problems inherent in social, economic, and political change including the creation of nationalist sentiments, calls for democracy, improving the conditions of life, and promoting security and stability.

POLI 303 **TERRORISM AND REVOLUTION (3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course is a comparative analysis of two major forms of political violence. Major revolutions of the twentieth century are the focus with particular attention to the Communist revolutions in Russia and China, the anti-colonial revolutions in Vietnam and Algeria, and the recent democratic revolutions in Eastern Europe and the former Soviet Union. Theories and explanations of terrorism are explored with attention given to the ways terrorists and the media influence each other and to various proposals for controlling terrorism.

POLI 304 **INTERNATIONAL ORGANIZATION AND WORLD POLITICS (3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course examines the role of international organizations in world affairs. Study includes the United Nations, major regional political and economic organizations, and the impact of non-governmental international organizations. Current events are heavily emphasized. The course is also used to prepare students for model United Nations exercises.

POLI 306 **COMPARATIVE FOREIGN POLICY (3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course investigates the development, determinants, and direction of the foreign policies of key nation-states in contemporary international relations including Russia, Germany, China, India, Japan, and the United States. The course includes simulation exercises and is used to help prepare students for participation in model United Nations activities.

POLI 311 **THE AMERICAN PRESIDENCY (3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course explores the formal and informal powers of the American presidency in the American constitutional system. Students examine presidential elections; White House relationships with Congress, the public, the media, the courts, and the bureaucracy; and the practice of presidential leadership at home and abroad.

POLI 312 **MONEY AND POWER: CONGRESS AND INTEREST GROUPS (3)** *Prerequisite: POLI 111, 112, or 220.* This course will examine the constitutional foundation and historical development of Congress, with emphasis on institutional aspects of Congress, and the role of Congress in the legislative process, and electoral politics. The history of interest group politics, the effect these groups have on the legislative process, and the impact of these groups on democracy will also be treated.

POLI 321 **POLITICAL SCIENCE RESEARCH METHODS (3)** *Prerequisite: POLI 220.* This junior-level course prepares students to write their senior theses. Required of all political science majors, the course examines how disciplined political knowledge (political science) is developed and reported. Students learn to develop and test hypotheses, prepare research designs, collect data, and use statistical analysis.

POLI 325-326 **CONSTITUTIONAL LAW IN THE UNITED STATES (3, 3)** *Prerequisite: INTL 101, POLI 111, or 112.* This course sequence is a survey of constitutional interpretation by the U.S. Supreme Court using the case method. The structure and powers of the American governmental system will be treated during the first semester. The second semester is devoted to the study of individual rights.

POLI 331-332 **NATIONAL MODEL UNITED NATIONS I, II (3, 2)** *Prerequisites: INTL 101, POLI 111, or 112, and permission of the instructor.* This course provides a survey of the United Nations and of the designated UN member state assigned for representation at the National Model United Nations in New York, by preparing students in an Experiential Learning course, with researching the assigned country's history, economics, politics and foreign policy, while learning UN policymaking procedure, negotiation, writing, debating and caucusing skills.

POLI 362 RECENT POLITICAL THOUGHT (3) *Prerequisite: INTL 101, POLI 111, or 112.*

This course examines some of the leading political thinkers of the twentieth century in order to understand the difficulties that may stand in the way of achieving justice in the political sphere. We will examine how justice may be achieved within a liberal political order; how the demands of justice impact the family; whether justice can be confined to the political sphere, or whether it must apply also within the private; and possible limitations of liberal democratic conceptions of justice.

POLI 372 UNITED STATES FOREIGN POLICY (3) *Prerequisite: INTL 101, POLI 111, or 112.*

This course examines the distinctive heritage of the United States in foreign affairs, the strengths and weaknesses of American foreign policy-making processes, and the means at the disposal of policymakers to carry out foreign policy in contemporary world affairs.

POLI 375 U. S. - LATIN AMERICAN RELATIONS (3) *Prerequisite: INTL 101, POLI 111, or 112.*

An examination of relations between the countries of Latin America and the United States, this course considers the historical influence of the United States on Latin American countries' political, social, and economic development and how these relations have changed from Latin American independence to present-day. It includes analysis of current topics such as immigration, NAFTA, and the growing Hispanic influence within the United States society and politics.

POLI 377 STUDY ABROAD (1-6) *Prerequisite: INTL 101, POLI 111, or 112.* The course provides students the opportunity to study political science concepts, principles, and theories in foreign settings.**POLI 397 INDEPENDENT STUDY IN POLITICAL SCIENCE (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.*

This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

POLI 398 SPECIAL TOPICS IN POLITICAL SCIENCE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.*

This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

POLI 399 INTERNSHIP (1-6) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.*

In a small number of cases, students may earn credit for participation in an internship with a government agency, law firm, political campaign, or nonprofit organization. Limited internship opportunities are available and must be jointly directed by a faculty sponsor and the responsible agency administrator. (See "Internships.")

POLI 410 SENIOR THESIS SEMINAR (3) *Prerequisites: POLI 220, 321, and at least two other 300-level courses.*

The senior seminar is designed to be a capstone course in which the student, utilizing substantive and methodological knowledge accumulated through previous course work, develops and tests a relevant political hypothesis or closely related set of hypotheses. The course culminates with the writing and presentation of a formal research paper.

PSYCHOLOGY COURSES (PSYC)**PSYC 103-104 GENERAL PSYCHOLOGY (3, 3)** *Corequisites: PSYC 105L-106L.* Three hours lecture per semester. This course sequence provides an overview of the subfields of psychology.**PSYC 105L-106L GENERAL PSYCHOLOGY LABORATORY (1, 1)** Two hours laboratory per semester. This course serves as an introduction to the laboratory techniques of psychology.**PSYC 212 INTRODUCTION TO BEHAVIOR MODIFICATION (3)** *Strongly recommended: PSYC 106L.* Three hours lecture. This course studies the use of principles of learning and experimental design in the modification of a wide variety of human behaviors.**PSYC 213 PSYCHOLOGY OF EXCEPTIONALITIES (3)** Three hours lecture. This course is designed to impart a basic understanding of persons with disabilities. It provides pre-service teachers with

knowledge regarding disability-related laws, rules, and regulations (both state and federal), as well as definitions, causes, and characteristics of disability (all within a social-cultural, political, medical, psychological, and educational context).

PSYC 215 HEALTH PSYCHOLOGY (3) *Strongly recommended: PSYC 103-104.* Three hours lecture. This course examines the psychological, biological, and social factors involved in the promotion and maintenance of health and the prevention and treatment of illness. Students learn about the interaction of mind and body while exploring such topics as nutrition and eating disorders; cancer and heart disease; chronic illness and pain management; AIDS; smoking and alcoholism; and stress and coping.

PSYC 230 PSYCHOLOGY OF AGING (3) *Strongly recommended: SOCI 240.* Three hours lecture. This introductory overview course examines the conceptual and theoretical approaches to the psychological aspects of aging. Personality variables and adaptive as well as maladaptive behavioral patterns are also studied.

PSYC 238 INTRODUCTION TO RESEARCH (1-3) *Prerequisite: Consent of supervising instructor.* This course provides the beginning student the opportunity to conduct lab, field, or library research under the supervision of a faculty member. Credit is dependent upon the scope of the work.

PSYC 241 DEVELOPMENTAL PSYCHOLOGY (3) Three hours lecture. Growth, development, and associated behavioral change from conception through aging are studied in this course. Psychology majors are advised to take PSYC 341, which counts as a requirement in the major.

PSYC 245W HUMAN DEVELOPMENT FROM BIRTH THROUGH ADOLESCENCE [Writing Enriched] (3) *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* This course is intended for and required for students pursuing licensure in elementary, secondary, and special education programs. Skills in this area (from birth to adolescence) shall contribute to an understanding of the physical, social, emotional, speech and language, and intellectual development of children and the ability to use this understanding in guiding learning experiences and relating meaningfully to students.

PSYC 261 PSYCHOLOGY OF GENDER (3) This course examines psychological approaches to the study of sex and gender. Issues of male and female psychology are examined with a consideration of ways in which the similarities and differences between men and women influence behavior, cognitive abilities, and physical and psychological health. Theoretical perspectives on sex, gender, sex-role socialization and gender differences, and similarities across the lifespan are covered.

PSYC 263 PSYCHOLOGY OF LAW (3) This course examines the application of psychological principles, research, and knowledge to legal issues dealing broadly with the interface between psychology and the law. As such, the course will critically investigate the wide range of contemporary applications of psychology to a variety of topics including understanding the origins and treatments of criminally deviant behavior, psychological autopsies, criminal profiling, jury selection, eye witness testimony, repressed memory, persuasive communication in the courtroom, child abuse investigation, competence determination, and the insanity defense.

PSYC 265 INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY (3) This course focuses on the application of psychological principles and research to a variety of human issues in industry. Research techniques applicable in the field, along with data associated with various concepts and theories, are covered. Additional topics covered are personnel selection, training and evaluation; human factors and engineering psychology; and the organizational and social context of human work.

PSYC 267 THEORIES OF PSYCHOTHERAPY (3) Students are introduced to the theories and techniques used in therapeutic interventions with individuals and groups that provide a framework for the process of psychotherapy. The course will provide a systematic, comprehensive, and balanced overview of the leading theories and techniques.

PSYC 274 STATISTICS FOR PSYCHOLOGISTS (4) Three hours lecture and two hours laboratory. This course introduces descriptive and inferential statistics with particular emphasis on applications to psychological research. A required laboratory supplements lectures.

PSYC 275W RESEARCH METHODOLOGY [Writing Enriched] (4) *Prerequisites: ENGL 111W-112W or ENGL 223W, PSYC 103/105L, 104/106L, 274.* Three hours lecture and two hours laboratory. This course examines experimental and non-experimental strategies used in psychology and other scientific disciplines. Studies are critiqued, designed, and conducted. Students are required to use the writing style of the American Psychological Association for their reports.

PSYC 302 SOCIAL PSYCHOLOGY (3) *Corequisites: PSYC 103-104.* Three hours lecture. This course analyzes the effects of others in the social environment on individual behavior. Topics include group dynamics, attitude theory, aggressive and pro-social behavior, and person perception.

PSYC 305 HUMAN MEMORY AND INFORMATION PROCESSING (4) *Prerequisites: PSYC 103/105L, 104/106L, 275.* Three hours lecture and two hours laboratory. This course focuses on current approaches to human information processing, encoding, storage, retrieval, and models of forgetting and memory storage. Laboratory exercises are computer-based and demonstrate concepts studied in class.

PSYC 306 THEORIES OF PERSONALITY (3) *Prerequisites: PSYC 103/105L, 104/106L.* Three hours lecture. A study of both the historical roots and the contemporary bases of personality theory are studied.

PSYC 308 ABNORMAL BEHAVIOR (3) *Prerequisites: PSYC 103/105L, 104/106L.* Three hours lecture. This course looks at a variety of disturbing behaviors, as well as determining factors, symptoms, and methods of treatment.

PSYC 311 SENSORY PROCESSES AND PERCEPTION (4) *Prerequisites: PSYC 103/105L, 104/106L, 275.* Three hours lecture and two hours laboratory. This course examines cognitive information processing which occurs in the reception, integration, and interpretation of incoming sensory stimuli and the physiological and anatomical bases of these processes. Laboratory exercises are computer-based and demonstrate concepts studied in class.

PSYC 312 LEARNING AND MOTIVATION (4) *Prerequisite: PSYC 275.* Three hours lecture and two hours laboratory. The course focuses on a detailed analysis of data pertaining to theories of learning and to the determinants of behavior change.

PSYC 315 DRUGS AND BEHAVIOR (3) *Prerequisites: PSYC 103/105L, 104/106L.* Three hours lecture. The biochemical and physiological bases of drug action are presented as a basis for understanding the physiological and behavioral effects of drugs. The major classes of drugs are discussed with particular emphasis on popular drugs of abuse such as alcohol, nicotine, cocaine, and marijuana. The use of drugs in the treatment of mental disorders is also discussed.

PSYC 341W PSYCHOLOGY OF DEVELOPMENT [Writing Enriched] (3) *Prerequisites: ENGL 111W-112W or ENGL 223W, PSYC 274, 275.* This course in developmental psychology is intended for majors in psychology and critically examines the psychological theories and research that describe and explain human development.

PSYC 344 COGNITIVE PSYCHOLOGY (3) The purpose of this course is to introduce students to the major areas of cognitive psychology including the current methodologies used to study it. The course explores cognitive psychology within the domain of human information processing and the ways in which people learn and think in an attempt to understand the nature of human thought processes. Topics covered include attention, decision-making, language acquisition and use, knowledge representation, problem solving, and reasoning. Current models of cognition are considered in relation to the evidence on human thinking capabilities.

PSYC 355 PHYSIOLOGICAL PSYCHOLOGY AND LABORATORY (4) *Prerequisites: PSYC 103/105L-104/106L, 275.* Three hours lecture and two hours laboratory. This course involves the study of the biological bases of behavior. The focus is on the physiological mechanisms that mediate emotional, sexual, ingestive, and aggressive behaviors, as well as on the mechanisms mediating perceptual, learning, and memory processes. Laboratory exercises complement lectures and reading materials by providing hands-on experience with research techniques used in physiological psychology that illustrate the links between physiology and behavior.

PSYC 367 CHILD PSYCHOPATHOLOGY (3) The goal of this course is to provide an overview of the field of child psychopathology. The etiology, assessment, and treatment of the major psychological

disorders of childhood and adolescence will be discussed. Other topics covered include research methods, diagnosis and classification, child maltreatment, and cultural diversity.

PSYC 373 **ADVANCED METHODS: CLINICAL (1)** *Prerequisite: PSYC 275.* A two-hour laboratory focused on research in clinical psychology. Students investigate a topic of interest through aspects of the research process that may include the design of a proposal, conducting research, analyzing information, and presenting results.

PSYC 374 **ADVANCED METHODS: SOCIAL (1)** *Prerequisite: PSYC 275.* A two-hour laboratory focused on research in social psychology. Students investigate a topic of interest through aspects of the research process that may include the design of a proposal, conducting research, analyzing information, and presenting results.

PSYC 375 **ADVANCED METHODS: DEVELOPMENTAL (1)** *Prerequisite: PSYC 275.* A two-hour laboratory focused on research in developmental psychology. Students investigate a topic of interest through aspects of the research process that may include the design of a proposal, conducting research, analyzing information, and presenting results.

PSYC 376 **ADVANCED METHODS: COGNITIVE (1)** *Prerequisite: PSYC 275.* A two-hour laboratory focused on research in cognitive psychology. Students investigate a topic of interest through aspects of the research process that may include the design of a proposal, conducting research, analyzing information, and presenting results.

PSYC 392 **INTRODUCTION TO PSYCHOLOGICAL TESTS AND MEASUREMENT (3)** *Prerequisites: PSYC 103/105L, 104/106L, 308.* Three hours lecture. This study of psychological testing includes theories of test construction, the nature of psychological testing, and the kinds of tests available. General types of tests for assessment of personality, abilities/intelligence, psychopathology, and neurological functioning will be studied.

PSYC 392L **INTRODUCTION TO EDUCATIONAL AND PSYCHOLOGICAL TESTS AND MEASUREMENT LAB (1)** *Prerequisite or corequisite: PSYC 392.* This course will be an application of the administration, scoring, and interpretation of educational and psychological tests for diagnostic purposes.

PSYC 397 **INDEPENDENT STUDY IN PSYCHOLOGY (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

PSYC 398 **SPECIAL TOPICS IN PSYCHOLOGY (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

PSYC 399 **INTERNSHIP (1-12)** *Prerequisites: Eighteen hours of psychology exclusive of introductory psychology. Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator and supervising faculty prior to registration.* Internships occur in an agency or other institution involved in clinical services. (See "Internships.")

PSYC 401 **HISTORY AND SYSTEMS OF PSYCHOLOGY (3)** *Prerequisites: PSYC 103/105L, 104/106L, 275.* Three hours lecture. This course provides critical examination of historical antecedents and discernable systems of contemporary psychology. It is recommended for the senior year after considerable coursework in psychology.

RELIGIOUS STUDIES COURSES (RELG)

RELG 201W **OLD TESTAMENT [Writing Enriched] (3)** *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* This course is an introduction to literary and historical study of the Hebrew

Bible/Old Testament, a collection of religious literature central in the canons of Judaism, Christianity, and Islam.

RELG 202W NEW TESTAMENT [Writing Enriched] (3) *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* This survey of the literature of the earliest church pays special attention to its historical development and the major themes of its teachings.

RELG 205W RELIGIONS OF ASIA [Writing Enriched] (3) *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* This course presents the central features of Hinduism, Buddhism, Taoism, Confucianism, and Shinto within the framework of an historical survey of the religions from early times to the present. The course includes an introductory unit that seeks to construct a descriptive definition of “religion” through a study of the religions of prehistoric peoples and contemporary indigenous peoples.

RELG 206W JUDAISM, CHRISTIANITY, AND ISLAM [Writing Enriched] (3) *Corequisites or prerequisites: ENGL 111W-112W or ENGL 223W.* This course considers those religions originating in the Near East in an historical perspective, looking at the main stages of their development. Relevant passages from the sacred writings are examined for their original meaning in their textual context and for their importance for religious faith and practice today.

RELG 303 SEMINAR IN RELIGIONS OF ASIA (3) *Prerequisite: RELG 201, 202, 205, or 206.* The seminar will examine texts from one of the following religions: Hinduism, Jainism, Buddhism, Sikhism or Confucianism. Selected topics will be chosen from the following: textual analysis, the relationship of religious norms to those of the modern secular state and its obligations to society; “fundamentalism”; the role of women; religious movements which spring from Eastern teachings, and Western teachings with Eastern roots.

RELG 304 SEMINAR IN ISLAM (3) *Prerequisite: RELG 201, 202, 205, or 206.* The seminar examines the development of Islam in seventh-century Arabia. Topics will be chosen from the following: the life and influences of Muhammad; the importance of the Qur’an (as Islam’s sacred text); the Sunni and Shia split in Islam; the development of Islam as a coherent socio-religious system and the relevance of that system to the modern world; “fundamentalism;” the role of women in the Islamic world; and Islam in the United States.

RELG 305 SEMINAR IN RELIGION IN AMERICA (3) *Prerequisite: RELG 201, 202, 205, or 206.* This course provides an investigation of significant individuals, movements, institutions, and ideas of the American religious experience.

RELG 316 JESUS AND JUDAISM (3) *Prerequisite: RELG 201, 202, 205, or 206.* This seminar focuses on current New Testament research dealing with issues such as the historical Jesus and his ministry in his Jewish context; the development of early Christian thinking about Jesus; the teachings of Jesus, especially the parables; contemporary Jewish-Christian relations and dialogue concerning Jesus.

RELG 317 SEMINAR IN OLD TESTAMENT RESEARCH (3) *Prerequisite: RELG 201, 202, 204, or 206.* This seminar focuses on a selected issue in current Hebrew Bible/Old Testament and Inter-testamental research from the following topics: The Torah; the Prophets; the Wisdom Literature; the Apocrypha; the Dead Sea Scrolls; and other relevant topics that may be added. May be repeated for credit when topic varies.

RELG 322 CONTEMPORARY RELIGIOUS THINKERS (3) *Prerequisite: RELG 201, 202, 205, or 206.* This course critically examines the work of representative religious thinkers by close reading of their major texts.

RELG 328 SEMINAR IN RELIGIOUS ETHICS (3) *Prerequisite: RELG 201, 202, 205, or 206.* This seminar focuses on the writings of selected ethical thinkers and on specific social and moral issues in present-day society.

RELG 397 INDEPENDENT STUDY IN RELIGION (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for

no more than six credits.

RELG 398 SPECIAL TOPICS IN RELIGION (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

RELG 399 INTERNSHIP IN RELIGIOUS STUDIES (1-3) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* Internships are open to a limited number of students and are arranged individually under the supervision of the Advisory Committee on Pre-Ministerial Education. (See "Internships.")

RELG 410 SENIOR SEMINAR (3) *Prerequisite: senior standing.* In this capstone course students explore issues within the study of religion and learn strategies for research culminating in the writing and presentation of a formal research paper.

SCIENCE COURSES (SCIE)

SCIE 101 PRINCIPLES OF SCIENCE I (4) Three hours lecture and three hours lab. This course provides an integrated study of science principles with an emphasis on the physical sciences (physics, chemistry, earth and space). These underlying principles help to connect knowledge of the natural world to the context of everyday life, including topical issues. Lecture and lab are integrated.

SCIE 102 PRINCIPLES OF SCIENCE II (4) Three hours lecture and three hours lab. This course is a continuation of SCIE 101, which is not necessary for enrollment in this course. This course includes an initial review of some basic physical science principles with an emphasis on the life sciences (biology, environmental, human biology). These underlying principles help to connect knowledge of the natural world to the context of everyday life, including topical issues. Lecture and lab are integrated.

SCIE 397 INDEPENDENT STUDY IN SCIENCE (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

SCIE 398 SPECIAL TOPICS IN SCIENCE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

SOCIOLOGY COURSES (SOCI)

SOCI 121 CULTURAL ANTHROPOLOGY (3) This course compares how certain universal human patterns, e.g., the family, economy, religion, education and political systems, are approached by different peoples/cultures in the contemporary world. The course specifically considers how different peoples/cultures respond to the universal crises—birth, maturation, death, the need for food and shelter, etc. Additionally this course examines how large scale, complex peoples/cultures deal with intra-cultural variation and with the existence of the different cultural groups of each which may have different patterns for resolving the universal crises named above.

SOCI 201 INTRODUCTION TO SOCIOLOGY (3) This course provides an introduction to the fundamentals of sociology including an analysis of culture, society, and personality and their relationship with one another. Attention is given to developing a sociological frame of reference that enables the student to gain a new perspective of modern society. Attention is also given to the multiple career patterns which allow for the use of sociological training.

SOCI 202 SOCIOLOGY OF SOCIAL PROBLEMS (3) *Prerequisite: SOCI 201.* This course provides an examination of social problems within present-day society with attention directed to the strains

and tensions within society and the resulting modifications.

SOCI 203 INTRODUCTION TO CULTURAL STUDIES (3) This course serves as a foundation course for cultural studies. Students will be introduced to the conceptual framework of cultural studies to include key concepts such as: mass culture, the culture industry, cultural production, the means of cultural consumption, cultural identities, representation, multiculturalism, hegemony, deconstruction, and ideology. The course will also provide a theoretical understanding of cultural studies with an emphasis on critical theory highlighting the work of such theorists as Pierre Bourdieu, Theodor Adorno, Walter Benjamin, Fredric Jameson, bell hooks, Jean Baudrillard, and Stuart Hall. The course will emphasize the critical analysis of the production and consumption of mass culture, interpretive strategies, and the role of mass culture in everyday life. Students should emerge from the course with an elevated level of cultural literacy and be more well informed consumers of culture.

SOCI 209 ADVOCACY AND SOCIAL JUSTICE (3) *Prerequisite: SOCI 201.* This course provides students with the opportunity to explore and engage with material relevant to the role of applying sociology in a variety of career fields and industries to advocate for vulnerable populations, challenge inequality and injustice, and promote social justice through the application of sociological concepts, theories, and research methodologies.

SOCI 214 RITUAL, POWER, SALVATION: RELIGION IN SOCIOLOGICAL PERSPECTIVE (3) *Prerequisite: SOCI 201.* This course introduces the student to classical theoretical approaches to the study of religion, with special attention to the work of Max Weber and Emile Durkheim, and to the contemporary, culturally oriented perspectives of Peter Berger, Robert Wuthnow, and others. The empirical focus will include both the contemporary United States and a comparative look at other societies. Employing a multi-dimensional approach, the course will tackle micro, meso, and macro level religious phenomena. As such, the course will address the following: the manner in which religion functions to provide a sense of orientation and direction to cognitions, desires, and bodily practices; people's capacity for religious commitment and belonging; the types and dynamics of religious collectivities in specific political contexts; and the impact of religion on social cohesion, conflict, and change. In addition, students will engage in a sociologically rich exploration of ritual, secularization and secularism, and the re-emergence of religion in the public sphere.

SOCI 222 MINORITY GROUPS (3) *Prerequisite: SOCI 201.* The focus of this course is on the analysis of minority group relations, especially in the United States. Issues include the nature/range of problems and prejudices as viewed in relation to economic and social class organization; political alignments; regional traditions; and psychological tensions. Course work includes a comparative study of world race relations; the geography and ecology of race relations; the idea of race; and racial conflict.

SOCI 231 MARRIAGE AND THE FAMILY (3) *Prerequisite: SOCI 201.* Contemporary American marriage and family patterns are viewed in historical and cross-cultural perspectives and interpreted against the modern urbanized environment in light of current value systems. Analysis is made of the cultural, psychological, and social factors involved in the changing American family.

SOCI 233 MUSIC, CULTURE, AND REPRESENTATION (3) *Prerequisite: SOCI 201.* This course offers a foray into the sociology of music wherein students will explore the multifarious cultural contexts in which music emerges and come to understand the varied functions of music in society. The course will focus on the means of production, creative process, and means of consumption with respect to music. Moreover, the course will deal with concepts central to the sociology of music to include: genres, music subcultures, authenticity, cultural resistance, co-optation, representation, stratification, cultural identities, professionalism vs. amateurism, and the relationship between music, media, and technology. A survey of genres will include: jazz, blues, rock, electronic, rap, country, soul, funk, punk, and indie. Lastly, the course will provide the student with a means to understand the various ways in which music permeates everyday life, whether as art, entertainment, background noise, or as a prop for a variety of rituals central to social life.

SOCI 239 SOCIOLOGY OF THE SOUTH (3) This course examines the relationship between the South and the rest of the United States. Students will apply sociological perspectives to the analysis of the South's unique history and continued role in American culture. Areas of study will include such topics as race relations, social change, media representations of the South, collective memory and memorialization, social identities, and the cultural distinctiveness of the region.

SOCI 240 **SOCIOLOGICAL ASPECTS OF AGING (3)** *Prerequisite: SOCI 201.* This course uses a sociological frame of reference to examine the interrelationships between aging and society. The primary objectives are to familiarize the student with (1) the field of aging, (2) the issues and problems of aging, (3) the theories and methods of gerontologists, (4) the approaches, attitudes and social conditions relative to the aging process and experience, and (5) individual aging experiences. The course provides the foundation for the gerontology minor and for future courses in gerontology.

SOCI 245 **THE INDIVIDUAL IN SOCIETY (3)** *Prerequisite: SOCI 201.* A sociological study of the impact of society on the individual, this course analyzes the social development of personality including attitudes, values, and individual differences in social behavior and the processes of socialization.

SOCI 247 **SOCIOLOGY OF GENDER (3)** *Prerequisite: SOCI 201.* This course investigates ways in which gender structures human lives and relationships and approaches gender stratification from interpersonal, interactional, institutional, historical, and cross-cultural points of view.

SOCI 251 **SOCIOLOGY OF HUMAN SEXUAL BEHAVIOR (3)** *Prerequisite: SOCI 201.* A cross-cultural examination of the social aspects of human sexual behavior, the course analyzes types and patterns of sexual behavior contrasted with social mechanisms which prescribe or proscribe such activity.

SOCI 253 **GLOBALIZATION AND CINEMA (3)** *Prerequisite: SOCI 201.* This course examines how the Cinema form became part of and helped to speed the processes linked with Globalization. The course also explores how the values of any specific national culture leads to the representation of certain human types and how those values are/are not transmitted to other national cultures. The course will additionally investigate how national-culture representations do/do not become global stereotypes and how those stereotypes do/do not influence local behaviors.

SOCI 256 **SOCIOLOGY OF DEVIANCE (3)** *Prerequisite: SOCI 201.* The course provides a broad overview of theoretical treatments of deviance, deviant careers, and societal reaction to deviance. Attention is given to the role of power relations in the social construction of deviance and social control. The course will entertain such topics as the medicalization of deviance, drug use, sexual deviance, religious deviance, and the simulation of deviance in popular culture and media.

SOCI 263 **URBAN SOCIOLOGY (3)** *Prerequisite: SOCI 201.* This course provides an intensive study of the drastic effects of rapidly expanding urban areas on social organization. Attention is given to the origin, development, and changing patterns of the city. The influence that urbanization and industrialization have on social institutions and personal relationships is considered.

SOCI 264 **SOCIAL INEQUALITY AND OPPRESSION (3)** *Prerequisite: SOCI 201.* With a focus on social stratification, structural inequality, and oppression, this course introduces students to the historical and theoretical foundations of understanding social inequality in a global age and provides students with opportunities to engage in critical thinking around the intersectionality of poverty, social mobility, power and politics, oppressed group statuses, and the globalization of race, class, and gender.

SOCI 270 **METHODS OF SOCIAL RESEARCH (3)** *Prerequisite: CRIM 241 or SOCI 201.* This course analyzes methods and techniques employed in sociological research. Attention is given to selection and formulation of research problems, sampling, data collection and analysis, and interpretation of research findings. Selected examples of major research areas of sociology are examined.

SOCI 280 **STATISTICS FOR SOCIOLOGISTS (3)** *Prerequisite: CRIM 241 or SOCI 201, and SOCI 270.* This course and the accompanying laboratory provide a survey of quantitative techniques in sociological research with particular attention given to nonparametric tests, measures of association, and the development of quantitative models.

SOCI 342 **POPULATION STUDIES (3)** *Prerequisite: SOCI 201.* This course provides a study of the growth, distribution, and composition of population and the associated social and cultural factors in the United States, with some consideration of world population. The course acquaints the student with U.S. Census materials, immigration trends and policies, age, and sex structure. It also stresses the effects and selective factors of migration and differential fertility and mortality rates.

SOCI 358 **SOCIOLOGICAL THEORY (3)** *Prerequisite: SOCI 201.* This course is designed to explore the literature of both classical and contemporary sociological theory. Attention is given to the major paradigms that characterize the discipline as well as more recent trends in social thought. The course will provide a survey and critique of major classical theorists such as Marx, Durkheim, and Weber. The exploration of contemporary theory may include forays into symbolic interactionism, structural functionalism, neo-functionalism, conflict theory, critical theory, feminism, and postmodernism. Students will be required to write extensively about an original work in the discipline. In addition special attention will be paid to the application of theory.

SOCI 374 **QUALITATIVE METHODOLOGY (3)** *Prerequisite: SOCI 201 and 270.* This course introduces and provides basic training in qualitative research, including the identification and framing of research questions, interview instrument construction, measurements of reliability, validity, data collection, and analysis. More specifically, students will learn how to convert a sociological question into a topic appropriate for qualitative study, gain access into a research site, establish rapport, and other methods associated with conducting successful fieldwork. Instruction in methods of analysis may include grounded theory, content analysis, narrative analysis, and discourse analysis.

SOCI 377 **STUDY ABROAD (3)** *Prerequisite: consent of instructor.* This course provides students with the opportunity to study societal institutions and social organizations' patterns in foreign settings.

SOCI 397 **INDEPENDENT STUDY IN SOCIOLOGY (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

SOCI 398 **SPECIAL TOPICS IN SOCIOLOGY (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

SOCI 399 **INTERNSHIP IN SOCIOLOGY (1-6)** *Prerequisite: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, supervising faculty, and school dean prior to registration.* This course provides the student with a supervised work experience in a setting in which sociology is applied. Examples of work settings include, but are not limited to, advertising agencies, personnel departments in large businesses, market research firms, municipal planning offices, correctional agencies, and social service departments. Internships are developed by the student with assistance from the sociology staff and/or the internship coordinator. (See "Internships.")

SOCI 430 **SENIOR RESEARCH CAPSTONE (3)** *Prerequisites: CRIM 372, SOCI 201, 270, 280, 358, or 374.* Contemporary Issues in Sociology. This course is designed to synthesize the student's Sociology Program experiences. During the semester each student chooses a research topic, carries out the appropriate literature review, and designs the research method to be used to investigate the topic chosen.

SPANISH COURSES (SPAN)

All students entering the 102, 201 and 202 language levels will be required to take a placement test. The results of this test will determine the highest level of the language in which a student may enroll: i.e. 0-24 = SPAN 101, 25-40 = SPAN 102, 41-52 = SPAN 201 and 53-56 = SPAN 202. Class level placement is also based upon the successful completion of the prerequisite language course at the college level, earned AP credit or by consent of the instructor.

To waive the general education requirement for SPAN 201, students must score 53 or above and pass an additional evaluation that includes an oral interview and a written component.

Work in the MLRC constitutes part of the elementary and intermediate language courses. It is designed to furnish peer language tutors for review and to teach and test listening comprehension and speaking skills, the components of which are auditory discrimination, auditory memory, pronunciation and fluency.

For students whose native language is not English, the foreign language Gen Ed requirement may be waived using the substitution waiver form based on passing an acceptable proficiency in speaking and writing in the native language.

SPAN 101-102 ELEMENTARY SPANISH (3,3) This course sequence introduces four language skills in Spanish: listening comprehension, speaking, reading, and writing with emphasis on basic grammar and oral proficiency. Work in the language laboratory is required.

SPAN 201 INTERMEDIATE SPANISH (3) *Prerequisites: SPAN 101-102 (each student's level is determined by a placement test that is given at the beginning of the course).* This course provides a review of grammar and intensive reading and conversational practice, with emphasis on speaking, in Spanish. This course brings students to the novice high/intermediate low oral proficiency level (ACTFL Guidelines). Work in the language laboratory is required.

SPAN 202 INTERMEDIATE SPANISH (3) *Prerequisite: SPAN 201.* This course reviews fundamental principles of grammar with an introduction to Spanish and Latin American civilization through readings in contemporary prose and poetry. Emphasis is on oral practice and vocabulary building based on readings.

SPAN 205 INTERMEDIATE SPANISH - MEDICAL (3) *Prerequisites: SPAN 101-102 (each student's level is determined by a placement test that is given at the beginning of the course).* This special section of Intermediate Spanish focuses on medical and health-related terminology, contexts, and situations. The course offers practice of the same grammatical concepts and linguistic functions as in all other sections of Intermediate Spanish, but the vocabulary and correlating role-play situations and lab activities will focus on health-related situations. This course will bring students to the novice high/intermediate low conversational level (ACTFL guidelines). By taking this course, students planning for careers in health sciences fields should be better able to address the health-related social, linguistic, and cultural needs of the Hispanic population. Work in the Modern Language Resource Center is required. This course fulfills the General Education requirement for Foreign Languages.

SPAN 206 SPANISH FOR INTERNATIONAL AND CRIMINAL LAW (3) *Prerequisite: SPAN 201 or equivalent.* This special section of Intermediate Spanish 202 focuses on legal terminology, contexts, and situations. This course offers practice of the same grammatical concepts and linguistic functions as in other sections of Intermediate Spanish 202, but the vocabulary and correlating role-play situations and grammar practice activities will focus on situations involving criminal and international law. This course reviews fundamental principles of grammar through readings, projects, writing assignments and mock court procedures involving situations of international and criminal law.

SPAN 208 HISPANIC LITERATURE IN ENGLISH TRANSLATION (3) This course focuses on selected works of the most representative authors of the twentieth century in Spain and in Spanish America and satisfies the literature requirement in general education.

SPAN 221 ADVANCED LANGUAGE PRACTICE: CONVERSATION (3) *Prerequisite: SPAN 202.* This course offers intensive practice in both oral and written Spanish to develop fluency and correctness expression. While this course has both writing and speaking components, emphasis will be given to developing oral fluency with grammatical accuracy in class discussions and speaking assignments based on cultural readings.

SPAN 222 ADVANCED LANGUAGE PRACTICE: COMPOSITION (3) *Prerequisite: SPAN 202.* This course offers intensive practice in both oral and written Spanish to develop fluency and correctness expression. While this course has both writing and speaking components, emphasis will be given to developing writing ability through frequent compositions based on cultural readings and class discussions.

SPAN 277 STUDY ABROAD: INTRODUCTION TO THE CULTURE AND CIVILIZATION OF SPAIN (3) This course features the study of the history, culture, and civilization of Spain and is taught in Spain as part of the summer Study Abroad Program. There is no prerequisite and is taken as elective credit.

SPAN 311 CINEMA IN SPANISH (3) *Prerequisite: SPAN 221 or 222.* This course will explore a particular topic in depth through the use of Hispanic films and, when appropriate, literature. Possible topics include: Hispanic gender roles, the interpretation and representation of Hispanic history, contested Hispanic cultural and political questions, and the depiction of Hispanics in current U.S. and other non-Hispanic films.

SPAN 340 THE CULTURE AND CIVILIZATION OF LATIN AMERICA (3) *Prerequisite: SPAN 202 or 206.* This broad introduction to Spanish American culture focuses on the geography, environmental concerns, political systems, economics, and an abbreviated history of Spanish American culture, beginning with pre-Columbian cultures. Emphasis is placed on cultural contributions including, but not limited to, art, music, film, food, and literature.

SPAN 341 THE CULTURE AND CIVILIZATION OF SPAIN (3) *Prerequisite: SPAN 202 or 206.* This course is a study of the cultures, history, geography, politics, society, and the economy of Spain. Although the focus for the course will be contemporary, an overview of Spanish history is necessary to understand modern Spain.

SPAN 351 INTRODUCTION TO SPANISH LINGUISTICS (3) *Prerequisite: SPAN 221 or 222.* This course is an introduction to the basic linguistic issues concerning the Spanish language, from the point of view of contemporary linguistics theory. It will familiarize students with the basic concepts of the principle areas of linguistics: syntax, semantics, morphology, phonetics, phonology, historical linguistics, dialectology, psycholinguistics, first and second language acquisition and sociolinguistics.

SPAN 360 INTRODUCTION TO LITERATURE IN SPANISH: LATIN AMERICA (3) *Prerequisite: SPAN 221 or 222.* This course includes a broad survey of Latin American literature written in Spanish from the colonial period to the present. It will include a selection of the most representative works from the Colonial period, the 19th century, as well as works from the 20th and 21st centuries in the genres of prose, poetry and drama. Students will also learn strategies for conducting literary analysis of a text in Spanish.

SPAN 361 INTRODUCTION TO LITERATURE IN SPANISH: SPAIN (3) *Prerequisite: SPAN 221 or 222.* This course includes a broad survey of Peninsular Spanish literature from the medieval period to the present. It will include a selection of the most representative works from the Middle Ages, Spain's Golden Age, the Generation of '98, as well as works from the 20th and 21st centuries in the genres of prose, poetry and drama. Students will also learn strategies for conducting literary analysis of a text in Spanish.

SPAN 377 STUDY ABROAD (3) *Prerequisite: SPAN 101.* This course is designed for students studying abroad in a Spanish speaking country for linguistic and cultural immersion. The course will include language instruction or cultural/literary instruction pertaining to the region where the travel takes place in order to help students gain proficiency in the Spanish language and the cultural practices of the location. This course may be taught in English or Spanish. If taught in English the course must be taken in conjunction with another Spanish course at the 102 level or above.

SPAN 397 INDEPENDENT STUDY IN SPANISH (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

SPAN 398 SPECIAL TOPICS IN SPANISH (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

SPAN 399 INTERNSHIP IN SPANISH (1-6) *Prerequisites: Juniors and seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, supervising faculty and school dean prior to registration.* Students may earn college credit for participation in an internship with a business firm, a government agency or a private non-profit organization; jointly supervised by the program and the responsible organization administrator. The internship is expected to provide the student with an opportunity to apply, in a practical way, some of the language skills acquired in the study of Spanish. (See "Internships.")

SPAN 470 METHODOLOGY OF TEACHING SECOND LANGUAGES (3) *Prerequisite: Junior or senior status.* This course is designed for students interested in teaching French, Spanish or English as a second language (ESL). The course provides a thorough introduction to contemporary theories of second language acquisition, methods of language teaching and assessment, and current issues in second language teaching. Additional work will be required for graduate credit.

SPAN 475 RESEARCH AND TRANSLATION METHODS (3). *Prerequisite:* Senior standing, SPAN 340 or 341, and at least one other 300-level course in Spanish. This course prepares students to write papers in Spanish for upper-level courses and the senior thesis. It will also give a brief introduction to and practice with translation methodology. This course is required of all Spanish majors.

SPAN 476 SENIOR THESIS (3). *Prerequisite:* SPAN 475. This is the senior capstone course for Spanish and is required of all Spanish majors. Students will write a thesis in Spanish, under the direction of a faculty member in Spanish, and will be required to present it in Spanish orally and in writing. Students will also present and defend a portfolio of their oral and written work accumulated during their time as students pursuing a specialization in Spanish. The defense will be conducted partly in Spanish and partly in English.

SPECIAL EDUCATION COURSES (SPED)

SPED 213 INTRODUCTION TO SPECIAL EDUCATION (3) This course is the first to be taken in the study of special education. It provides understanding of disability –related laws, legislative/judicial mandates, rules and regulations on the federal, state and local level. Course content will focus on knowledge of the foundation for educating students with special needs including historical perspectives, models, theories, philosophies and trends in special education. Characteristics, definitions causation, behaviors, levels of severity, age span issues, and medical aspects of the major disability groups will be discussed and demonstrated. Educational implications, ethical /cultural/environmental issues and family rights/responsibilities are also addressed.

SPED 234 CHARACTERISTICS OF DEVELOPMENTAL DISABILITIES (3) *Prerequisite:* SPED 213. This course focuses on the study of the definitions, characteristics, theories, etiology and learning/behavioral support needs of students with disabilities who are accessing the general education curriculum at K-12 school levels. Included are students with intellectual and developmental disabilities, autism, other health impairments, traumatic brain injury and multiple/physical disabilities. Knowledge of characteristics as it relates to age, levels of severity and developmental differences in all areas of functioning are studied. Additional attention is directed to causes, programs/services, current issues and future directions in the field.

SPED 330 FIELD EXPERIENCE II (SE) (1) *Prerequisites:* EDUC 202, 211; *Corequisite:* EDUC 313. This course provides pre-service teachers with opportunities to apply instructional skills in controlled situations under the guidance of experienced professionals. Students participate in two hours of observations and tutorial instructional activities per week in special education classrooms in local public and private schools. There will be opportunities to view the structure of general education classrooms and other instructional settings representing the continuum of special education services. Seminars and other activities will provide opportunities for analysis and reflection. This course may be retaken only once with the permission of the instructor. A grade of B- or above is required in this course before taking SPED 430. Enrollment in SPED 330 is limited to students enrolled in a teacher licensure program. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

SPED 331 PROGRAM DESIGN IN SPECIAL EDUCATION (3) *Prerequisites:* EDUC 211, SPED 213. This course provides training in program design for students with disabilities who are accessing the general education curriculum across the K-12 grade levels. It provides knowledge regarding IEP and Section 504 plans, inclusion with nondisabled peers, service delivery, designing classroom environments and management, adapting materials and technology. Program accommodations, placement, scheduling, grouping, curriculum development/models (both general and special education) will also be addressed.

SPED 334 CHARACTERISTICS OF LEARNING AND RELATED DISABILITIES (3) *Prerequisite:* SPED 213. This course focuses on the study of the definitions, characteristics, theories, etiology and learning/behavioral support needs of students with disabilities who are accessing the general education curriculum at K-12 school levels. Included are students with learning disabilities, emotional disturbance and behavior disorders. Knowledge of characteristics as it relates to age, levels of severity, and developmental differences in all areas of functioning are studied. Attention is directed to causes, educational needs and specialized methods/ programs/services as well as current issues and future directions in the field.

SPED 336 COLLABORATION WITH FAMILIES, EDUCATORS, AND RELATED SERVICE PROVIDERS (3) *Prerequisites: EDUC 101, 201, 202, PSYC 241, SPED 213.* Students in this course are introduced to the issues and practices of educators who deal with students with diverse learning challenges. Students learn effective collaboration strategies that will help them deal with para-educators, peer teachers, families, related service providers, and community agency staff members. Attention is given to issues such as integrated services, coordination between general and special educators, teaming, family-focused collaboration, community resources, and models of service delivery.

SPED 397 INDEPENDENT STUDY IN SPECIAL EDUCATION (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

SPED 398 SPECIAL TOPICS IN SPECIAL EDUCATION (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

SPED 430 FIELD EXPERIENCE III (SE) (1) *Prerequisites: SPED 330 and passing scores on Praxis I.* This course provides students with opportunities to apply instructional skills in controlled situations under the guidance of an experienced professional. Students participate in two hours of observations, tutorial, and small and large group instructional activities per week in classrooms in local public and private schools. Students have the opportunity to experience the structure and organization of general education classrooms and other instructional settings representing the continuum of special education services. On-campus and in-school seminars provide opportunities for analysis and reflection. A grade of B- or above is required in this course before student teaching. This course may be retaken only once with the permission of the instructor. Enrollment in SPED 330 is limited to students enrolled in a teacher licensure program. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

SPED 432 METHODS FOR READING AND ACADEMIC CONTENT (3) *Prerequisite: SPED 331.* This course provides the skills to develop instruction, methods, materials for individual student special needs in academic subjects including reading, language arts, math, social studies. Alternate methods/strategies for teaching in the general education curriculum with models such as differentiated instruction, direct instruction, student directed instruction, CBA etc. will be addressed. Best practice teaching methods in the continuum of special/general services models will be adapted for students.

SPED 433 TRANSITION, LIFE SKILLS, AND COMMUNICATION (3) *Prerequisites: SPED 234, 331, 334.* This course introduces preservice teachers in special education to transitions in the life of a student with special needs. Curriculum, instruction, methods, materials and technology for helping students to learn transition, training, employment, career/independent life skills and community experiences will be addressed. Writing of IEPs, ITPs and Person Centered Plans will be practiced. Skills and strategies of communication and language in the areas of social, pragmatics and alternative/assistive technology are explored.

SPED 437 STUDENT TEACHING (SPED) (11) *Prerequisite: Completion of all major course requirements; Corequisite EDUC 448.* This course is an application of all the effective teaching skills that have been learned in course work in mental retardation. Students are assigned to one semester, full time block under the supervision of College personnel and classroom teachers where they practice their teaching skills. This course requires a mandatory Criminal and Social Services background check conducted at the end of the prior semester at the student's expense.

SPED 445 ADVANCED FIELD EXPERIENCE IN DISABILITY SERVICES (3-6) *Prerequisite: Successful completion of field experiences, minimum 2.5 GPA overall, consent of instructor for 3 credit hours and consent of dean for 6 credit hours.* This course provides a non-school placement within the disabilities community, including vocational training, case management, early intervention, related therapies, specific disabilities, and advocacy. Open only to senior students taking the non-licensure option. Application required.

SPED 464 INTRODUCTION TO ASSESSMENT IN SPECIAL EDUCATION (3) *Prerequisite:*

sites: SPED 213, 234, 334. This course prepares students to take an active role in the determination of eligibility for special education services within public schools. The primary focus will be directed toward the administration, scoring, and interpretation of educational and individual achievement measures.

SPORT MANAGEMENT COURSES (SPMG)

SPMG 215 SPORT MANAGEMENT PRACTICUM (1-3) Practica are part-time work experiences in the sport industry introducing the student to the work environment and exploring particular dimensions of the sport industry. The primary purpose is introductory with observational learning and minimal practice of skills and tasks. This course may not be taken for more than three total credit hours.

SPMG 260 PRINCIPLES OF SPORT MANAGEMENT (3) This course provides a survey of current practices of sports management as they apply to amateur, professional, informational, recreational, and school-related sports.

SPMG 270 GOVERNANCE OF SPORT ORGANIZATIONS (3) *Prerequisite: SPMG 260.* This course is designed to expose the student to various governing bodies in professional and amateur sport. Students will study the organizational structure and functions of a variety of governing entities. There will be an examination of sport as a cultural product and the relationships within sport that affect sport organizational structures with emphasis given to the dynamics of sport organizations in professional, collegiate, scholastic, recreational, and corporate settings as they relate to mission, strategic planning, and the development of human resources. This course will introduce students to the constitutions and by-laws of various agencies governing sport at the various levels. Special emphasis is placed on how governmental agencies influence and sanction sport organizations and the route of appeal of a decision by a governing body.

SPMG 275 HISTORY OF SPORT IN AMERICA (3) This course will explore the major historical and philosophical developments in sport and recreation, including interscholastic, intercollegiate, and professional sport. Students will address sport as a pervasive facet of our popular culture, as a social institution, as an arena of human activity, and as a drama; sports and cultural values and values conflict; and the relationship of sport to social change throughout American history. Students will explore the timeline of sport in America considering the rise and fall of popularity for certain sporting activities in relationship to the cultural framework at the time.

SPMG 300 SPORT IN AMERICAN SOCIETY (3) *Coerequisites: SOCI 121 or 201 and SPMG 260.* This course is a study of sport as social phenomena with discussion of issues in sports and sport-related behaviors as they occur in social and cultural contexts. It includes an introduction to sociological issues, practices, and phenomena associated with sport. This course is designed to make students aware of the impact of sport upon the American culture. Course content explores such areas as social theories, the social significance of sport in society, social problems related to sport, the interaction of sport and other social institutions (e.g., family, education, economy, politics, mass media, and religion), and international cultures and sport. Analysis of the past, present, future impact of sports on contemporary society is applied to the transformation of sport into the present commercial enterprise. Course content includes theoretical positions in the sociology of sport and the significance of viewing sport from various social perspectives.

SPMG 340 SPORT FINANCE (3) *Prerequisites: ECON 201, SPMG 260.* This course is an in-depth study of financial analysis processes utilized in decision making by sport managers. The focus of the course is on basic principles of micro-economics, business structures in sport organizations, basic tools of financial management, e-commerce, sources of revenue, and stadium finance. As an introduction to the fundamentals of finance as it relates to the sport industry, students are introduced to financial statement analysis, the time/value of money, investments, the player's contract, fund-raising, and the development of organizational budgets.

SPMG 350 GENDER AND SPORT: ISSUES AND CONTROVERSIES (3) *Prerequisites: junior standing and consent of instructor.* This course will expose students to obvious and subtle issues in the sport domain that contribute to different opportunities and experiences for males and females. The history of men's and women's participation patterns with American sport activities will be presented. There will be an exploration of the portrayal of the sporting images within the popular media that help shape the meanings of masculinity and femininity in America. In addition, the concepts of competitiveness and success will be explored with emphasis on the application to what this means for men and women. The issue of race/ethnicity on gender definition will be pursued as it is expressed in sport.

- SPMG 353 SPORTS LAW (3)** *Prerequisites: SPMG 260 and junior standing.* This course introduces legal principle application to a variety of sports settings. Issues related to risk management, individual rights of athletes and employees, and gender are explored.
- SPMG 368 SPORTS FACILITIES AND EVENT MANAGEMENT (3)** *Prerequisites: MGMT 260, SPMG 260.* This course focuses on the development of personal skills and competencies in the management and maintenance of movement and sport facilities and management of sport and physical performance events.
- SPMG 370 SPORT PROMOTIONS AND MARKETING (3)** *Prerequisites: MKTG 309, SPMG 260.* This course will compare and contrast the field of sport marketing with the practices and applications of mainstream marketing. The course will examine the application of marketing principles with the sport industry. Topics will include SWOT analysis, market segmentation, distribution, packaging, promotion, positioning, and pricing. This course explores the marketing process relative to sports in collegiate, recreational, commercial, and professional environments. Include in this study are market research techniques, pricing, promotional developments and strategies, identifying target markets, and advertising. This class builds on the general principles of marketing by discussing the unique aspects of sport marketing and applying marketing concepts to sport as a product and the promotion of sports activities. This course is designed to assist students in understanding and appreciating the multifaceted components of sport marketing, including sport consumer behavior, promotion, sponsorship and licensing, and media relations.
- SPMG 377 STUDY ABROAD (3)** This course focuses on sport management issues for spectator and participative sport events and facilities across the global sport environment. The student will be afforded the opportunity to observe and experience sport settings through travel excursions in foreign countries.
- SPMG 397 INDEPENDENT STUDY IN SPORT MANAGEMENT (1-3)** *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.
- SPMG 398 SPECIAL TOPICS IN SPORT MANAGEMENT (1-3) [credit depends on topic]** *Prerequisite: A background of work in the discipline or prior consent of instructor.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.
- SPMG 415 INTERNSHIP IN SPORT MANAGEMENT (1-12)** *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This course offers a professional internship with an appropriate sport industry organization/program. The student and faculty sponsor will agree upon the location and responsibilities of the intern. The number of credits will depend upon the nature of the project and the number of hours involved in the project. (See "Internships.")
- SPMG 420 SPORT ETHICS AND CURRENT ISSUES (3)** *Prerequisites: PHIL 101, SPMG 260, and junior standing.* This course will explore the concepts of ethical decision-making processes as applied to issues found in sport settings. Areas such as fair play, equitable opportunity, exclusive membership policies, health and wellness concerns, and others will be explored. In particular, students will be exposed to concepts of morality and theories of ethical thought while developing a personal philosophy of social responsibility and professional codes of ethics. This course will focus on the ethical issues impacting sport organization policy formation and practice. Topics include moral and ethical development theories, models of ethical analysis, code of professional ethics, personal and management values, and situational analysis. Specifically, students explore critical issues related to professional ethics, rights and responsibilities
- SPMG 441 MANAGEMENT AND ADMINISTRATIVE PROCESSES IN FITNESS AND SPORT (3)** *Prerequisites: MGMT 260, SPMG 260.* This course involves a study of the management and administration procedures utilized in sport programs. Competency development in personnel, business and finance, and risk management is emphasized.

THEATRE COURSES (THEA)

THEA 101 INTRODUCTION TO THEATRE ARTS (3) This course provides an introduction to all areas of theatre including acting, directing, design, and history, focusing on the role of the audience and performer and emphasizing the collaborative nature of theatre. The course includes lecture, discussion, and a scene project and is recommended for students who have had little participatory experience in theatre.

THEA 102 INTRODUCTION TO TECHNICAL THEATRE AND DESIGN (3) This course offers an introduction to the theatre organization, the theatre facility and its equipment, and to the basic design and visual environments of the stage. A study of materials, equipment, and techniques used in the construction of scenery is included.

THEA 120 INTRODUCTION TO DANCE (3) This beginning course in dance for the musical theatre stage focuses on basic foundations and techniques in ballet and jazz. Syntheses of these styles will be placed into basic musical theatre choreography.

THEA 123 VOICE AND DICTION (3) This course includes physical and vocal exercises, as well as the organization, preparation and execution of a variety of oral presentations. A persuasive speech is the culminating project. This is not a course for the identification and correction of chronic vocal problems, dialect reduction, or for the practice of English as a second language.

THEA 131 FUNDAMENTALS OF ACTING (3) This course presents concepts and exercises that set an actor in motion physically, verbally, and emotionally, leading to character development and scene study. This is an active, participatory course focusing on physical and vocal exercises, improvisation, and performance projects.

THEA 202 TECHNICAL THEATRE (3) A study of materials, equipment, and techniques used in the construction and finishing of scenery, this course also includes principles of drafting, lighting, sound, and special effects.

THEA 211 DRAMATIC LITERATURE: CLASSICAL GREECE TO RENAISSANCE (3) This course is a study of the great literary works of the theatre during the major periods of the Greek, Roman, Medieval, and Renaissance eras.

THEA 212 DRAMATIC LITERATURE: SEVENTEENTH CENTURY TO PRESENT (3) This course is a study of the great literary works of the theatre during the major periods of the late seventeenth century to the present.

THEA 220 ADVANCED DANCE (3) *Prerequisite: THEA 120.* Focusing on the creative process, group work and performance, this course will engage the student in advanced ballet, jazz, or musical theatre techniques, and may include the opportunity for student choreography.

THEA 232 SCRIPT AND CHARACTER ANALYSIS (3) *Prerequisite: THEA 131.* This course provides a variety of methods for analyzing plays, scenes, and characters. Course work includes oral reports and performance projects.

THEA 240 STAGE COMBAT (3) This course is a basic overview of violence for the stage and film. The course will involve analysis and interpretation of violence in scenes, plays and film. Students will be instructed in hand-to-hand combat, rapier and dagger, and broadsword techniques for use in theatrical productions and films.

THEA 250 STAGE MAKEUP (3) This course is an exploration of the techniques of stage makeup including traditional, corrective, old age, facial hair, prosthetics, and fantasy characters. It includes color theory, facial anatomy, and character analysis. Learning activities involve lectures, demonstrations, and studio participation. Students must purchase a make-up kit.

THEA 275 MUSICAL THEATRE (3) An overview of the musical theatre genre, including the study and practice of singing, dancing, acting, style, interpretation, and audition techniques.

THEA 301-302 HISTORY OF THE THEATRE I, II (3, 3) A history of performance and production in the great theatre epochs.

THEA 311 DIRECTING (3) *Prerequisite: THEA 232 and consent of instructor.* This study of the director's function in staging and producing plays for schools, churches, and community organizations includes script interpretation and analysis, production organization, composition, and communication with actors. The final project involves the direction of a one-act play, from casting through rehearsal and performance.

THEA 315 ADVANCED ACTING (3) *Prerequisite: THEA 232.* This course is a continuation of THEA 232 and includes a study of advanced performance techniques and theatrical career preparation.

THEA 330 TECHNICAL THEATRE II (3) *Prerequisite: THEA 202.* An overview of drawing and drafting for the theatre. This will include practical and theoretical practices used in all areas of design.

THEA 331 SCENE DESIGN (3) *Prerequisite: THEA 202.* This course is an introduction to the theory, esthetics, and practice of scenery design for the theatre. It includes the study of line and form for visual presentation in ground plans, elevations, and three-dimensional models. Learning activities include lecture, discussion, individual projects, and CAD applications.

THEA 333 LIGHTING DESIGN (3) *Prerequisite: THEA 202.* This course is an introduction to the theory, esthetics, and practice of lighting design for the theatre and includes study of lighting instruments, electricity, and control systems. Learning activities include lecture, discussion, individual projects, and CAD applications.

THEA 340 THEATRE MANAGEMENT (3) *Prerequisites: THEA 131, 202.* This course is an introduction to the economic and managerial aspects of American theatre, specifically professional resident theatre and non-professional educational and community theatre. Topics include the physical theatre plant, finances, public relations, audience development, box office procedures, and house management.

THEA 350 ADVANCED STAGE MAKEUP (3) *Prerequisite: THEA 250.* The study of advanced stage makeup techniques to include but not limited to prosthetics, beards and mustaches, hair and wigs, and nonrealistic makeup.

THEA 377 STUDY ABROAD (3) This course allows students the opportunity to explore theatre in the international community. Students will read plays, examine playwrights, and gain knowledge of the theatrical heritages and current trends generating from particular countries. During excursions, students will be immersed in theatrical performance by participation in workshops, academies, and other experiential activities. Students will have multiple opportunities to observe and examine theatrical performances.

THEA 390 THEATRE AND DANCE PRACTICUM (.5 or 1) *Prerequisites: Consent of the instructor, academic advisor and school dean. Satisfactory/Unsatisfactory credit only.* May be repeated for credit. Specific assigned production responsibilities broaden a student's knowledge and practice in theatre and dance. A maximum of eight hours of practicum credit is allowed over a student's career at the College.

THEA 397 INDEPENDENT STUDY IN THEATRE (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

THEA 398 SPECIAL TOPICS IN THEATRE (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

THEA 399 INTERNSHIP IN THEATRE (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator; and supervising faculty prior to registration.* This planned work experience for academic credit allows the student to explore the world of

work as it relates to the student's theatre and career goals. (See "Internships.")

THEA 410 SENIOR PROJECT (3) *Prerequisites: Senior theatre majors only, consent of instructor, academic advisor and school dean.* In this capstone course, the student will complete a theatre production project demonstrating proficiency in the field. The project is designed to employ the principles stressed in upper-level theatre courses and will include research, documentation, and practical application. The body of work must be completed under faculty supervision.