Courses are listed by department, in alphabetical order.

300 and 400 level courses are designed for students of upper-division standing (junior or senior standing).

In the course description, the digit in parenthesis indicates the semester hours of credit for the course.

In planning schedules, students should be reminded that all courses are not offered each semester. In order that students may better plan their program of study, the semesters in which courses will be offered may be listed at the end of the course description. F denotes the course will be offered in the Fall term; S, the Spring term; Su, the Summer term. Contact the department chair for information regarding the offering of a course without semester designation.

**ANTHROPOLOGY (ANTH)**

101 **Primates, People and Prehistory.** (3) An exploration of human origins, human evolution, human prehistory and cultural existence from its less complex forms to early civilizations. An introduction to the concepts, methods and data of physical, biological and archaeological anthropology. May be taken with, or independently of, Anthropology 102.

102 **Understanding Other Cultures.** (3) An exploration and comparison of selected contemporary cultures, including their languages. An introduction to the concepts, methods and data of sociocultural anthropology and anthropological linguistics. May be taken with, or independently of, Anthropology 101. (Not open to anyone who has taken Anthropology 101 before 1976.)

110 **Introduction to Folklore and Folklife.** (3) An exploration of the major forms of folklore and of the principal concepts and methods of folklife studies. Special attention will be given to folklore and folklife in South Carolina and in the Waccamaw Region.

320 **Archaeology and Man’s Past.** (3) (Prereq: Anthropology 101) An introduction to archaeological research. Archaeological theory and methods in the context of prehistoric data drawn from various world areas. Topics include the role of man as hunter, the development of food production, changing social and trade networks, and prehistoric urbanism in the rise of states and civilization.

333 **Prehistory of North America.** (3) (Prereq: Anthropology 101) Prehistoric anthropology in North America from the first arrival of man through the beginning of European acculturation.

345 **Archaeology of Plantations.** (3) An archaeological analysis of antebellum plantations with an emphasis given to the significance of settlement patterns,
spatial organization, architecture, lifeways, crop production, cemeteries, social and economic conditions, and how groups of artifacts speak to these varied topics and the complex relationships that existed between planters, overseers, and slaves.

355 **Minority Group Relations.** (3) (=Sociology 355) (Prereq: Sociology 101) Theories, methods, and substantive issues in the study of majority-minority group relations with an emphasis upon racial and ethnic differentiation.

360 **Historical Folklife.** (3) (=History 360) Approaches to the study of the history of the folk and the application of such approaches to topics relating to South Carolina and the Waccamaw Region.

398 **Archaeological Field Research.** (3) (Prereq: Permission of the instructor) Students actively participate in prospecting, locating, excavating and evaluating a regional archaeological site. Students may register two times for this course, and are limited to a maximum of six hours credit.

399 **Independent Study.** (1-6) (Prereq: Written contract between student and instructor, approved by the Dean, College of Natural and Applied Sciences.)

**ART CURATORIAL STUDIES (ARTC)**

365 **Practicum In Curatorial Studies I.** (3) Students will explore issues relating to the curatorial process through the planning, design and installation of exhibitions. Students will develop graphic and exhibition design proposals, publications, community outreach and public relations strategy for an exhibition. Sessions will include registration, art handling, condition reporting, professional art shipping and receiving, environmental standards for storage and exhibition and the professional responsibilities of the curator.

**ART EDUCATION (ARTE)**

329 **Art for Elementary Schools.** (3) Methods of teaching art to elementary school children. Major emphasis will be given to relevant studio experiences.

340 **The School Art Program.** (3) (Prereq: Art Education 329 or permission of instructor) An introduction to art education as a profession. Students will examine the historical development of art in education, current issues and trends in art education, and prominent rationales for art in the schools. Methods for evaluation of art programs and student art products will be explored.

349 **Methods and Materials for Teaching Art.** (3) (Prereq: Art Education 329 or permission of instructor) Students will develop art learning units with relevant teaching support materials organized around specific art concepts and art materials. Methods for evaluation of art programs and student art products will be explored. Emphasis is placed on secondary schools.

379 **Cultural Foundations of Art/Craft in Art Education.** (3) Students will learn to create art using traditional and contemporary craft media and techniques.
(Art Education, Art History)

as applicable to K-12 art instruction. Students will also develop an understanding of the forms and functions of non-Eurocentric art across world cultures. Method of instruction will include an examination of relevant researched supported materials and assessment methodologies.

ART HISTORY (ARTH)

105 History of Western Art I. (3) (Writing Intensive) A survey of the visual arts and their relevance to their times from the Paleolithic period through the Gothic period.

106 History of Western Art II. (3) (Writing Intensive) A survey of the visual arts and their relevance to their times from the Renaissance to the present. S.

322 Medieval Art & Architecture. (3) A survey of the cultural and artistic trends from c. 300 to 1300, this course will focus on France, England, Germany, and Italy, but also examine important post-classical innovations in what are now Norway, Greece, Turkey, Israel, Egypt, and Syria. Much of the discussion will concern religious architecture, culminating in High Gothic cathedrals. Decorative arts such as illuminated manuscripts, mosaics, stained glass, and sculpture in wood, stone, bronze, and gold will also be central to the course content.

323 Italian Renaissance Art & Architecture. (3) This course surveys the painting, sculpture, and architecture of the Italian peninsula c. 1300-1550 and the revival of classical ideals and philosophies of visual representation focusing primarily on Florence, Venice, and Rome. The course examines the art and ideas of inspired, creative minds such as Giotto, Masaccio, Ghiberti, Brunelleschi, Alberti, Donatello, Botticelli, Leonardo da Vinci, Michelangelo, Raphael, Titian, Palladio, and many more.

324 Baroque Art & Architecture. (3) The 17th Century was a period of remarkable exploration, experimentation, and change. Those events were embodied in the painting, sculpture, and architecture of this Gilded Age. Focusing on the Netherlands and Flanders (modern Holland and Belgium), Rome, France, and Spain, this course surveys the visionary ideas of Caravaggio, Carracci, Rembrandt, Rubens, Vermeer, Velasquez, Borromini, and Bernini among others.

340 American Art. (3) A survey of the fine arts, popular arts, architecture, and material culture of the United States, taking into consideration important events in social, political, and economic history from the time of British colonies to the mid twentieth century.

341 Modern Art 1800-1940. This course follows the development of a modern consciousness within the art of Europe and the United States from 1800 to 1940. The progressive advance of stylistic movements during a time of revolutions, industrial, change, and colonial expansion includes neoclassicism, romanticism, realism, impressionism, expressionism, cubism, surrealism, and others. The impact of non-European traditions on the growth of a modern aesthetic will be explored.
Post Modern & Contemporary Art - 1940 To The Present. (3) Study of the major trends in art and visual practices within the United States and Europe, since 1940 to the present, in order to understand how artists engage a personal vision, political point of view, or intellectual goal in their interaction with the world.

African American Art. (3) An overview of the African-American presence in the fine arts, popular arts, architecture and material culture produced in the United States from the time of the transatlantic slave trade to the present. Study includes both the art created by African descendent Americans as well as the representation of African-Americans by Euro-Americans.

Art and Ideas. (3) (Prereq: Art History 101 or 105 or 106, or permission of instructor) An introduction to aesthetics, art theory, and art criticism. Students will read and discuss a variety of philosophical and critical writings that relate to the visual arts.

American Film. (3) (Prereq: completion of an ARTH 100-level course with a grade of C or better or consent of instructor) This course is an introduction to a preeminent visual art form of the 20th century - the motion picture. This course will give students a criteria for interpreting film within an historical context while introducing major genres, significant directors and influential screen actors from the formative years of this art.

Gender and Ethnicity in Art. (3) (Prereq: completion of an Art History 100-level course with a grade of C or better or consent of instructor)(Writing Intensive) A critical examination of how gender and ethnicity have been represented in visual culture within the Western tradition.

Critiquing The Museum. (3) This course involves travel to museums and galleries in order to broaden our understanding about how viewers perceive and interact with art in various settings. We will consider how our responses are influenced by the manner of display, and the environment within which an exhibition is mounted. Travel destinations have included New York and Paris, and may vary each time the course is offered.

Special Topics in Visual Culture. (3) (Prereq: Art History 105, 106, or permission of instructor) Topics in visual culture of special interests but which are too specific to be served by an established course. Topics may include but are not limited to more diverse imagery than traditionally offered in an art history survey course. May be taken more than once as the topic changes. Course fulfills upper level course requirement for Art Studio majors.
ART STUDIO (ARTS)

103  **Fundamentals of Art I.** (3) An introduction to the basic principles of two-dimensional design and color.

104  **Fundamentals of Art II.** (3) An introduction to the basic principles of three-dimensional design and form.

111  **Drawing I.** (3) Basic course in the materials and techniques of drawing.

112  **Drawing II.** (3) (Prereq: Art Studio 111) Basic course in the materials and techniques of drawing.

201  **Introduction to Electronic Design.** (3) An introductory course addressing the role of the professional designer in visual communications. Strategies, techniques and software used in the electronic design process are addressed. Topics covered are layout, design, typography, illustration, web design and desktop publishing.

202  **Graphic Design Techniques.** (3) (Computer Usage) (Prereq: Art Studio 103 and 201) A course exploring printing and reproduction methods. Projects focus on printing processes and the production of camera ready art. Extensive use of the computer as a graphic design tool.

204  **Ceramics (Pottery/Sculpture).** (3) (Prereq: Art Studio 104 or permission of the instructor) An introductory course to explore ceramic processes involved with pottery and sculpture. Concentration is on hand building techniques of pinch, coil, and slab construction. Experiences will include decorating techniques, several glaze technologies and kiln loading and firing.

205  **Web Design I.** (3) Further study in web design and on-line information systems. Projects include: designing web sites with creative interfaces, designing strong graphic images, functional site organization and logical navigation schemes. Additional topics covered include CSS, templates, layers, frames and Flash Animation.

206  **Relief Printmaking.** (3) (Prereq: Art Studio 103 and Art Studio 111, 112, or consent of instructor) Introduction to the relief printmaking processes, including woodcut and linocut, in black and white and color.

207  **Silkscreen Printmaking.** (3) (Prereq: Art Studio 103 and Art Studio 111, 112, or permission of instructor) Introduction to the silkscreen printmaking processes.

208  **Sculpture.** (3) (Prereq: Art Studio 104 or permission of instructor) This course introduces the materials and techniques of sculpture, including plaster modeling, cold casting, carving, and assembling.

211  **Painting with Water Media.** (3) (Prereq: Art Studio 103 and Art Studio 111, 112, or permission of instructor) Introduction to the concepts and materials of water-based painting. Included will be dry and wet paper techniques, resists, various supports and grounds; traditional and contemporary usages.
Painting with Opaque Media. (3) (Prereq: Art Studio 103 and Art Studio 111, 112 or permission of instructor) Introduction to the concepts and materials of painting with an opaque medium (oil or acrylic at instructor’s discretion). Included will be alla prima, wet on wet, underpainting, glazing, palette knife techniques, various supports and grounds; traditional and contemporary usages.

Life Drawing I, II. (3 each) (Prereq for 231: Art Studio 111, 112; for 232: Art Studio 231 or permission of instructor) An introduction to drawing the figure from life, with an emphasis on visual perception and basic drawing skills.

Introduction to Black and White Photography. (3) An introduction to the use of the camera, light as a creative tool, darkroom practices, film developing, and printing. Emphasis on photography as a creative medium for personal expression.

Sophomore Review. (1) (Prereq: sophomore standing - 59 or 60 credits) A diagnostic and advisory review of the student's work at the end of the sophomore year, conducted in conference with an art faculty committee, with the student's adviser serving as chair.

Intermediate Graphic Design I. (3) (Prereq: Art Studio 202) A course that explores further printing and reproduction methods and the use of typesetting and photocopying equipment. Projects will include trademarks, logos, and corporate programs. Extensive use of desktop publishing.

Intermediate Graphic Design II. (3) (Prereq: Art Studio 301) Further study in graphic design processes, information formats and systems. Projects include catalogues, reports, magazines, signage, and corporate information systems. Extensive use of desktop publishing.

Illustration. (3) (Prereq: Art Studio 103 and Art Studio 111, 112) Introduction to the ideas and techniques of illustration as used in commercial art.

Web Design II. (3) Advanced problems in web design and development. Students will continue to use web authoring software as well as explore the server side of web design. Projects include building dynamic/database driven web sites and applications using several server side technologies such as ASP, Coldfusion and PHP.

Interactive Design Techniques. (3) This course introduces students to Macromedia Flash and the principles and techniques used in designing Flash Web sites and CD Roms.

Intermediate Painting I, II. (3 each) (Prereq: Art Studio 211 or Art Studio 212) Further explorations of materials and techniques of painting with emphasis on individual creative expression.

The Functional Vessel. (3) (Prereq: Art Studio 204 or permission of the instructor) This ceramic course concentrates upon wheel throwing techniques to include basic forms, lidded vessels and composite vessels of a functional purpose, including the teapot.
(Art Studio)

322 **The Sculptural Vessel.** (3) (Prereq: Art Studio 204 or permission of the instructor) This ceramic course combines wheel throwing and hand building processes in pursuit of a sculptural approach to the vessel tradition. Presentations and readings on contemporary developments within the ceramic vessel tradition will be explored. Review and refinement of wheel throwing and hand building skills are incorporated to extend the student's range of options in pursuit of a personal vocabulary of the sculptural vessel.

331, 332 **Advanced Drawing I, II.** (3 each) (Prereq: Art Studio 231 and 232) Advanced methods of graphic representation and expression. Emphasis is on traditional and non-traditional methods and developing individual creative expression.

361 **Intermediate Black and White Photography.** (3) (Prereq: Art Studio 261) An intermediate course continuing the investigation into photographic techniques. Panning, zooming, multiple exposure, and the creative use of different developers, films, and papers will be stressed as well as darkroom manipulation of the image.

371 **Introduction to Etching.** (3) (Prereq: Art Studio 103 and Art Studio 111, 112 or permission of instructor) An introduction to the etching/intaglio printmaking processes.

372 **Introduction to Fine Art Lithography.** (3) (Prereq: Art Studio 103, 111, 112, or permission of instructor) Introduction to stone and plate lithography printmaking processes.

381 **Sculptural Processes.** (3) (Prereq: Art Studio 208 or permission of the instructor) This course encourages sculptural exploration through the use of the subtractive and additive methods in metal, plaster, stone, or wood. Emphasis will be placed on the mastery of techniques that are integral to making and understanding subtractive and additive sculpture. Carving as well as the assembly of steel, plaster, stone, cement, and wood will be explored.

382 **Objective Sculpture.** (3) (Prereq: Art Studio 208 or permission of the instructor) This course investigates sculpture as object making. Students experiment with a wide range of scale, format, materials, and media options, with emphasis on the creation of meaning in personal objects. Presentations and readings provide historical and contemporary context for a better understanding of sculpture as object.

399 **Independent Study.** (3) See guidelines under Academic Regulations in this Catalog; may be repeated for credit with different topics.

401 **Advanced Graphic Design I.** (3) (Prereq: Art Studio 302) Advanced problems in advertising, promotion, packaging, and poster design. Projects include development of presentation techniques. Extensive use of desktop publishing and photography.
402 **Advanced Graphic Design II.** (3) (Prereq: Art Studio 401) Advanced problems in exhibition and environmental graphics, group solutions, client presentations and portfolio presentation. Extensive use of desktop publishing and photography.

411, 412 **Advanced Painting I, Advanced Painting II.** (3 each) (Prereq: Art Studio 312) Upper level courses for students with substantial backgrounds in painting. The choice of medium will be left to the student. Emphasis is on design, developing personal expression and style.

421 **Objective Approaches in Ceramics.** (3) (Prereq: Art Studio 204 or permission of the instructor) This course combines review and refinement of existing wheel and hand building processes leading to the extension of skill acquisitions. The focus is on personal design and construction of the clay object, whether functional and/or sculptural in purpose. Issues with the craft/fine art debate are addressed by presentations and reading to provide historical and contemporary context for students to explore design and meaning for the clay object today. Further glaze and surface resolutions are explored and mixed media options are addressed.

422 **Narrative in Clay.** (3) (Prereq: Art Studio 204 or permission of the instructor) This course focuses primarily on combining various sculptural processes with the intent to examine a variety of strategies for developing personal narratives in clay. Studio experiences are supported by readings on and analysis of rapidly developing trends in contemporary ceramic sculpture to discern creative strategies, historical appropriations and cross cultural influences available to the ceramic artist today. Student work may range from tile, relief to sectional sculptures and may include mixed media solutions as a further means to extend sculptural options.

471, 472 **Advanced Printmaking I and II.** (3 each) (Prereq: Art Studio 206 or 207 or 371 or 372) Advanced work on an individual basis in one or more printmaking media. Emphasis placed on experimentation and development of personal imagery and direction.

481 **Experimental Sculpture.** (3) (Prereq: Art Studio 208 or permission of the instructor) This course explores the theory and practice of sculptural site activation. Students will work in the extended mediums of site, space, light, sound, motion, and time-based technologies that may include digital imaging and video, investigating sculpture as active experience. An installation space will be available for student use and cooperative interaction will be encouraged.

482 **Advanced Sculptural Processes.** (3) (Prereq: Art Studio 381, 382, 481, or permission of the instructor) This course encourages sculptural exploration by allowing students to work with media and content of their choice, and encourages the exploring of some material new to them. Emphasis will be placed on the mastery of techniques that are integral to developing and understanding personal sculptural expression.

495, 496 **Art Studio Internship I, II.** (1-3 each) (Prereq: For Art Studio 495: Art Studio 103, 104, 111, 112, Art History 105, 106, plus junior standing, and 2.75 or better GPA; for Art Studio 496: Art Studio 495. Both courses must have permission of the instructor.) Students will be professionally supervised and
(Art Studio, Astronomy)

receive practical experience while working 60-180 hours per semester in the studios, plants, and/or offices of area art-related businesses. Weekly consultations with the instructor, an evaluation by the participating professional, and a journal, portfolio, log, and/or other evidence of work experiences will be required. A contract stating course objectives, course requirements, and grading procedures will be drawn up and approved by the supervising professional, the instructor in charge, the student intern, and the Associate Dean of the Edwards College of Humanities and Fine Arts.

497 **The Artist as a Professional.** (1) (Prereq: Second semester junior or permission of adviser) Seminar devoted to the development of professional practices in preparation for entry into the contemporary art world.

499 **Special Topics in Art.** (3) (Prereq: Permission of instructor) In-depth investigation of specific topics and media not generally available in the curriculum. May be repeated for credit under different topics.

**ASTRONOMY (ASTR)**

111 **Descriptive Astronomy I.** (3) An introduction to basic astronomical principles and their historical development, with emphasis on some of the major objects in the solar system. A description of physical processes, and the methods used by astronomers, will be presented. A combination of three hours lecture and demonstration designed primarily, but not exclusively, for non-science majors. F.

111L **Descriptive Astronomy I Laboratory.** (1) (Coreq: Astronomy 111 or permission of the instructor). A series of laboratory experiments and exercises (in and outdoors) to accompany Astronomy 111. Students will have the opportunity to do some night sky viewing (naked eye as well as telescope viewing). A sample of exercises: Phases of the Moon, the sky in Autumn, comparative planetology, rotation of the rings of Saturn, etc. No college mathematics prerequisite, but competency in high school algebra and geometry is expected. F.

112 **Descriptive Astronomy II.** (3) (Prereq: Astronomy 111) An introduction to basic astronomical principles and their development, with emphasis on stars and stellar systems; stellar evolution; interstellar matter, dust, and nebulae; galaxies; cosmology and cosmogony; and life in the universe. A combination of three hours lecture and demonstration designed primarily, but not exclusively, for non-science majors. S, alternate Su’s.

112L **Descriptive Astronomy II Laboratory.** (1) (Coreq: Astronomy 112 or permission of the instructor). A series of laboratory experiments and exercises (in and outdoors) to accompany Astronomy 112. Students will have the opportunity to do some night sky viewing (naked eye as well as telescope viewing). A sample of exercises: Spectral classification, the Spring sky, distance to stars, the Andromeda galaxy, the rate of expansion of our Universe, etc. No college mathematics prerequisite, but competency in high school algebra and geometry is expected. S.
(Bioinformatics, Biology)

**BIOINFORMATICS (BINF)**

101  **Introduction to Bioinformatics.** (3) (Prereq: Mathematics 130) (Coreq: Bioinformatics 101L) An introduction to bioinformatics, the use of computational techniques to extract and analyze information from genomic and biological databases. F.

101L  **Introduction to Bioinformatics Lab.** (1) (Prereq: Mathematics 130) (Coreq: Bioinformatics 101) The laboratory involves the use of computerized bioinformatics methodologies for the extraction and analysis of genomic and biological information. F.

**BIOLOGY (BIOL)**

101  **The Science of Life - Biology for Non-Science Majors.** (3) (Prereq: Science 101, 101L) (Coreq: Biology 101L) A non-technical introduction to Biology for non-science majors. This course will introduce students to basic biological processes and relate them to everyday life.

101L  **The Science of Life Laboratory for Non-Science Majors.** (1) (Prereq: Science 101, 101L) (Coreq: Biology 101) A non-technical introduction to Biology for non-science majors. This course will introduce students to basic biological processes using a series of hands-on laboratory exercises.

103  **Laboratory Techniques.** (3) (Prereq: An introductory laboratory course or permission of instructor) A laboratory course designed to introduce students to the theory and use of general laboratory procedures and equipment. Three lecture/laboratory hours per week. Offered on demand.

121  **Biological Science I.** (3) (Coreq: Biology 121L) An introduction to biological principles for students majoring in biology and related fields of study. Topics include scientific method, chemistry of life, macromolecules, cell structure and function, mendelian and molecular genetics. F, S, S1.

121L  **Biological Science I Laboratory.** (1) (Coreq: Biology 121) Experiments, related to topics in Biology 121. Exercise topics include evolution, experimental design, data analysis, photosynthesis, cellular respiration and macromolecules. F, S, S1.

122  **Biological Science II.** (3) (Prereq: Biology 121, 121L) (Coreq: Biology 122L) An introduction to biological principles for students majoring in biology and related fields of study. Topics include evolution, origin of life, plant and animal development, ecology. F, S.

122L  **Biological Science II Laboratory.** (1) (Prereq: Biology 121, 121L) Experiments, exercises and demonstrations emphasizing topics cover in Biology 122 with oral communications component. F, S.

206  **Genetics and Society.** (3) Genetic principles emphasizing human heredity and recent advances in genetics. Three lecture hours per week. Not available for major credit. Offered on demand.
Basic Bacteriology. (3) An introduction to the interrelations between microorganisms and humans. Three lecture hours per week. Not available for major credit. Offered on demand.

Natural History of Plants and Animals. (4) (An introductory biology course is recommended as prerequisite) An introduction to the biology of aquatic and terrestrial plants and animals of South Carolina. Topics will include aspects of the distribution, identification, morphology, and ecology of common plants and animals. Three lecture and three laboratory hours per week. Not available for major credit. Offered on demand.

Human Anatomy and Physiology I. (3) (Coreq: Biology 232L) An introduction to the structure and function of cells, tissues, organs, and the muscular-skeletal systems of the body. Required of students in nursing, pre-pharmacy, and most health-related programs. Not available for major or minor credit. Three lecture hours per week. F.

Human Anatomy and Physiology I Laboratory (1) (Coreq: Biology 232) A practical approach to the study of the structure and function of cells, tissues and organs. The systems which are covered in Biology 232 are emphasized in this Lab. Three laboratory hours per week. F.

Human Anatomy and Physiology II (3) (Prereq: Biology 121 or 232)(Coreq: Biology 242L) A continuation of Biology 232 covering the nervous, endocrine, circulatory, respiratory, digestive, excretory and reproductive systems. Required of students in nursing, pre-pharmacy and most health-related programs. Not available for major or minor credit. Three lecture hours per week. S.

Human Anatomy and Physiology II Laboratory (1)(Coreq: Biology 242) A practical approach to the study of the structure and function of the systems covered in Biology 242. Three laboratory hours per week. S.

Biology Seminar. (1) Opportunity for students to study, discuss and present papers on topics of historic and/or contemporary biologic importance. F, S.

Marine Biology. (3) (Writing Intensive) (= Marine Science 302) (Prereq: Marine Science 112 and Biology 122)(Coreq: Biology 302L) Study of the adaptive and evolutionary mechanisms by which organisms are able to occupy the various marine habitats. The evolutionary development of the diversity of marine organisms. Three lecture hours per week. F, S.

Marine Biology Laboratory. (1)(Writing Intensive)(=Marine Science 302L)(Coreq: Biology 302) The laboratory will demonstrate the topics and principles presented in lecture. Three laboratory hours per week. F, S.

Invertebrate Zoology. (3) (Prereq: Biology 122 or Marine Science 302) (Coreq: Biology 310L) Phylogenetic and comparative aspects of anatomy, physiology, reproduction, and embryology of the invertebrates. Three lecture hours per week. Offered on demand.
310L Invertebrate Zoology Laboratory (1)(Coreq: Biology 310) Laboratory exercises to accompany Biology 310. Three laboratory hours per week. Offered on demand.

315 Comparative Vertebrate Anatomy. (3) (Prereq: Biology 121 or Marine Science 302)(Coreq: Biology 315L) A comparative and embryological approach to the structure of vertebrate systems. Three lecture hours per week. F.

315L Comparative Vertebrate Anatomy Laboratory (1)(Coreq: Biology 315) A practical, comparative approach to the study of the structure of vertebrates. The dogfish shark and domestic cat are the emphasized laboratory specimens. Three laboratory hours per week. F.

320 Plants and Civilization. (3) Topics included are: the relationship of plants to human history and contemporary needs; botanic and economic uses of plants as sources of foods, rugs, woods, oils, and other products important in western life. Origin of cultivated plants will also be discussed. Three lecture hours per week. Offered on demand.

325 Systematic Botany. (3) (Prereq: Biology 121, 122)(Coreq: Biology 325L) Identification, classification, nomenclature, distribution and systematic relationship of vascular plants with emphasis on local flora. Three lecture hours per week. S.

325L Systematic Botany Laboratory. (1)(Coreq: Biology 325) Field experience including trips to maritime, riverine and upland habitats. Three laboratory hours per week. S.

328 Plant Pathology. (3) (Prereq: Biology 121, 122, and 330 recommended)(Coreq: Biology 328L) A study of plant diseases. Topics include parasitism and disease development, interaction of pathogens and host plants, genetics of plant disease, epidemiology, control of diseases and a survey of specific plant diseases. F, even years.

328L Plant Pathology Laboratory. (1)(Coreq: Biology 328) Laboratory exercises to accompany lecture. Three laboratory hours per week. Offered on demand.

330 Microbiology. (3)(Prereq: Biology 121 and 122)(Coreq: Biology 330L) An introduction to bacteria and viruses, emphasizing morphology, ultrastructure, metabolism, and growth. Discussion of pathogenic microbes, antigen-antibody relationships and antimicrobial agents in chemotherapy. Three lecture hours per week. S.

330L Microbiology Laboratory. (1) (Prereq or Coreq: Biology 330) Laboratory exercises to accompany Biology 330. Three hours per week. S.

340 Cell Biology. (3)(Prereq: Biology 121, 122 and Chemistry 112; Coreq: Biology 340L; Chemistry 331 is recommended) An integrated approach to the structure and function of cells. Cytology and fine structure of cell organelles, membranes, and extracellular structures will be discussed, as well as the techniques available to cell biologists. Three lecture hours per week. F, S.
(Biology)

340L  Cell Biology Laboratory.  (1) (Writing Intensive) (Prereq or Coreq: Biology 340) Laboratory exercises to accompany Biology 340. Three laboratory hours per week. F, S.

343  Comparative Physiology.  (3) (Prereq: Biology 122 or Marine Science 302 and Chemistry 331 or permission of instructor)(Coreq: Biology 343L) The comparative study of the origins, relationships, and functions of physiological mechanisms in vertebrate animals. Three lecture hours per week. S.

343L  Comparative Physiology Laboratory.  (1)(Coreq: Biology 343) Laboratory exercises to accompany Biology 343. Three laboratory hours per week. S.

345  Biology of Human Cancer.  (3) (Prereq: Biology 121) Topics covered in this course will include, the nature and cause of cancer, cancer at the cellular and molecular levels, cancer prevention and treatment, and overview of major types of cancer, and prospects for the future. Three hours of lecture per week. May.

349  Plant Physiology.  (3) (Prereq: Biology 121,122 and Chemistry 112; Chemistry 331 is recommended)(Coreq: Biology 349L) A study of plant function. Topics include water relations, mineral nutrition, photosynthesis, plant metabolism, plant growth and development, and environmental physiology. Laboratory exercises will demonstrate principles in lecture topics. Three lecture hours per week. Offered on demand.

349L  Plant Physiology Laboratory.  (1)(Coreq: Biology 349) Laboratory exercises to accompany Biology 349. Three laboratory hours per week. Offered on demand.

350  Fundamentals of Genetics.  (3) (Prereq: Biology 121, 122 or Marine Science 302) (Coreq: Biology 350L) Basic principles of transmission and molecular genetics; quantitative inheritance, recombination; biochemical aspects of gene function and regulations; developmental genetics and population genetics. Three lecture hours per week. F, S.

350L  Fundamentals of Genetics Laboratory.  (1)(Coreq: Biology 350) Laboratory exercises to accompany Biology 350. Three laboratory hours per week. F, S.

360  General Physiology.  (4) (Prereq: Biology 121 or Marine Science 302 and Chemistry 112; Chemistry 331 is recommended) An introduction to the functional processes of cellular, invertebrate, and vertebrate physiological systems, with special emphasis on human physiology for students in pre-medical, pre-dental and biology programs. Three lecture and three laboratory hours per week. Offered on demand.

365  Evolution.  (3) (Prereq: Biology 121 and 122 , or consent of instructor)(Coreq: Biology 365L) This course will provide students with a comprehensive framework of evolutionary theory. Topics include population genetics, speciation, systematics, and macroevolution. Three lecture hours per week. Offered on demand.

365L  Evolution Laboratory.  (1)(Coreq: Biology 365) This laboratory gives students the opportunity to further their knowledge of evolution through hands-on, field and laboratory-based exercises. Three laboratory hours per week. Offered on demand.
370 Principles of Ecology. (3) (Writing Intensive) (Prereq: Biology 122 or Marine Science 302) (Coreq: Biology 370L) Interactions of organisms and their environments. Ecosystem structure and function. Three lecture hours per week. F, S.

370L Principles of Ecology Laboratory. (1) (Prereq: Biology 122L or Marine Science 302L) (Coreq: Biology 370) Applications of principles and techniques used in the study of ecology, both in the lab and in the field. Three laboratory hours per week. F, S.

375 Biology of Marine Mammals. (3) (= Marine Science 375) (Prereq: Marine Science 302 or Biology 370) (Coreq: Biology 375L) A comprehensive survey of the biology and ecology of marine mammals, emphasizing the cetaceans, pinnipeds, sirenians, and sea otters. Major topics will include evolution and classification, anatomy and physiology, feeding and trophic interactions, life history, social organization and behavior, communication, cognition, and interactions with humans. Three lecture hours per week. F.

375L Marine Mammals Laboratory. (1) (= Marine Science 375L) (Coreq: Biology 375) The laboratory will demonstrate the topics and principles presented in the lecture. Three laboratory hours per week. F.

390 Natural History of East Africa. (4) (Prereq: Biology 121, 122, permission of instructor) A survey of the flora and fauna of the major biomes of East Africa, including the coral reef. Students will study the interrelation of the organisms with their environment and the stresses caused by population, climate, tourism, and habitat destruction. Three weeks field experience in east Africa will be supplemented with lectures at various stages of the trip. Students will be required to maintain journal entries of identified plant and animal species. May, odd years.

391 Natural History of the Rain forest and Galapagos Islands. (4) (Prereq: Biology 121 or 122) A survey of the flora and fauna of the Rain forest in the Amazon Basin and the Galapagos Islands. A two-week field experience will be supplemented with lectures at various stages of the trip. May, even years.

392 Natural History of the Eastern Caribbean. (4) (Prereq: Biology 121, 122, permission of instructor) A field survey of the natural history of the Eastern Caribbean including both major terrestrial and aquatic biomes. Topics will include geological history, ecology and evolution of plant and animal communities, the identification of dominant components of the flora and fauna and the impact of human activities including agriculture and tourism on island ecosystems. A two to three week field experience in the Eastern Caribbean will be supplemented by lectures and reading assignments before, during and after the field experience. Students will be required to maintain a field notebook as well as conduct an investigative research project while in the field. Offered on demand.

397 Selected Topics. (1-4) (Prereq: Permission of the instructor) These topics are designed to allow the development of seminars and courses in special areas of biology. F, S.
Independent Study. (1-6) (Prereq: Permission of instructor and approved contract) Directed study on specific topics. F, S.

Developmental Biology. (3) (Prereq: Biology 340 or 350 or permission of instructor) (Coreq: Biology 410 L) The course provides an understanding of modern developmental biology and considers classical embryology as well as the molecular basis of development. Topics include gametogenesis and fertilization, embryogenesis, cell differentiation, pattern formation and organogenesis, and cell cycle regulation. Discussion of emerging areas of developmental biology such as cloning, stem cell research, cancer genetics and genomics.

Developmental Biology Laboratory. (1) (Prereq: Biology 340 or 350 or permission of instructor) (Coreq: Biology 410) A laboratory course to complement Biology 410 that will introduce students to some of the basic experimental questions and techniques of developmental biology.

Biostatistics. (4) (=Statistics 410)(Prereq: Statistics 201/201L) Mathematically sophisticated presentation of principles and methods of data description; graphics, point and interval estimation, statistical testing, relative risk, odds, ratio, goodness of fits, ANOVA, design of experiments. Three lecture and three laboratory hours per week. F.

General Entomology. (3) (Prereq: Biology 122) (Coreq: Biology 423L) A general study of insects, closely related arthropods and insects of medical importance; morphology, physiology, ecology, taxonomy and life cycles. Three lecture hours per week. F, even years.

General Entomology Laboratory. (1) (Coreq: Biology 423) Includes field experience and an insect collection. Three laboratory hours per week. F, even years.

Mycology. (3)(Prereq: Biology 122) (Coreq: Biology 424L) An introduction to the understanding of the taxonomic relationships of the various fungal groups, as well as an introduction to the understanding of fungal growth, reproduction, metabolism, ecological relationships, and the utilization by and effects on human beings. Three lecture hours per week. Offered on demand.

Mycology Laboratory. (1)(Coreq: Biology 424) An applied approach to the study of fungi, focusing on isolation and identification. Three laboratory hours per week. Offered on demand.

Ichthyology: Fish Biology. (3) (Prereq: Biology 122 or Marine Science 302 and/or permission of instructor)(Prereq or Coreq: Biology 426L) Morphology, classification, evolution and distribution of fishes with emphasis on South Carolina marine and freshwater species. Three lecture and per week. F, odd years.

Ichthyology Laboratory. (1)(Prereq or Coreq: Biology 426) Laboratory and field exercises emphasizing the topics covered in Biology 426. Students will be required to make and turn in a collection of preserved fish specimens. Three laboratory hours per week. F, odd years.
427 Phycology: Algal Biology. (3) (Prereq: Biology 121, 122, or permission of instructor)(Coreq: Biology 427L) A detailed survey of the algae emphasizing morphology, taxonomy and physiology of both freshwater and marine forms. Field and laboratory investigations will include individual projects. Lecture will review classic as well as recent phycological literature. Three lecture hours per week. Offered on demand.

427L Phycology Laboratory. (1)(Coreq: Biology 427) Field experience and individual projects to accompany Biology 427. Three laboratory hours per week. Offered on demand.

431 Parasitology. (3) (Prereq: Biology 122) (Coreq: Biology 431L) A detailed study of the parasites of medical importance to humans with emphasis on the morphology, life cycles and the effects of these parasites on the human body. Three lecture hours per week. S.

431L Parasitology Laboratory. (1)(Coreq: Biology 431) A practical approach to the study of parasites of medical importance to humans. The recognition of selected species of parasitic protozoa and helminths and their structural detail is emphasized. Three laboratory hours per week. S.

436 Animal Behavior. (3) (Prereq: Biology 370)(Coreq: Biology 436L) This course traces historical and modern developments in the study of animal behavior and emphasizes the evolutionary, ecological, physiological determinants of behavior. Three lecture hours per week. Offered on demand.

436L Animal Behavior Laboratory. (1)(Coreq: Biology 436) This lab course gives students the opportunity to further their knowledge of animal behavior through hands-on field and laboratory-based exercises. Three laboratory hours per week. Offered on demand.

442 Advanced Genetics. (3) (Prereq: Biology 350 or permission of instructor) (Coreq: Biology 442L) This course will cover the molecular processes of genetic change within genomes, individuals, and populations over both short and long time-scales. Furthermore, students will read current research in evolutionary genetics to better appreciate the benefits and detriments of genetic change in domesticated and natural populations of organisms. Three lecture hours per week. Offered on demand.

442L Advanced Genetics Laboratory. (1)(Coreq: Biology 442) Laboratory exercises to accompany Biology 442. Three laboratory hours per week. Offered on demand.

450 Molecular Biology and Evolution. (3)(Coreq: Biology 450L) Techniques of molecular analysis with emphasis on DNA methods, including cloning, PCR, DNA sequencing, RFLP, RAPD and VNTR analysis. Applications of these techniques to problems in ecology, evolution, population studies, animal behavior and other areas of science.
Molecular Biology and Evolution Laboratory. (1) (Coreq: Biology 450) Exercises and guided reading to accompany Biology 450.

Molecular Techniques. (4) A research-based practicum on techniques of DNA analysis. Laboratory exercises serve as an introduction to DNA purification, quantitation and sequencing, PCR, gel electrophoresis, enzyme digestion and cloning.

Marine Botany. (3) (= Marine Science 455) (Prereq: Biology 112, 113 or Marine Science 302 or permission of instructor)(Coreq: Biology 455L) A field course in marine flora with emphasis on ecology and functional morphology. Work will stress the roles of marine bacteria, fungi, algae, and angiosperms in coastal marine communities. Three lecture hours per week. F, even years.

Marine Botany Laboratory. (1)(=Marine Science 455L)(Coreq: Marine Science 455) The laboratory will demonstrate the topics and principles presented in lecture. Three laboratory hours per week. F, even years.

Ornithology. (3) (Prereq: Biology 370 or permission of instructor) (Coreq: Biology 461L) The study of birds with emphasis on morphological and behavioral adaptations exhibited by birds in response to their environment. Laboratory exercises introduce the student to the diversity of birds with emphasis on the avifauna of North America. Topics include field identification of species, morphological and behavioral adaptations for feeding and locomotion, bird assemblages of the southeastern United States, and censusing procedures for estimating population densities. Three lecture hours per week. F, even years.

Ornithology Laboratory. (1)(Coreq: Biology 461) Field experience and exercises to accompany Biology 461. Three laboratory hours per week. F, even years.

Biology of Aging. (3) (Prereq: Biology 121 or Psychology 423 or Sociology 455) A study of aging in cells, organ systems and organisms with emphasis on the human aging process. Topics include biological changes associated with aging and factors that affect the rate of aging. Three lecture hours per week. NOT AVAILABLE FOR BIOLOGY MAJOR OR MINOR CREDIT IN BIOLOGY. Offered on demand.

Field Studies in Shark Biology. (2) (=Marine Science 473) (Prereq: Biology 113) An introduction to the biology of sharks. Lecture component held on campus will cover evolution, anatomy, behavior, natural history, physiology, conservation and ecology. The one-week laboratory will be held at the Bimini Biological Field Station and will include capture and telemetry tracing of sharks and observation of sharks in both their natural habitat and captivity. F.

Marine Ecology. (3)(=Marine Science 475) (Prereq: Permission of instructor)(Coreq: Biology 475L) Principles of organismic environmental interactions in various marine habitats. Emphasis on marshes, estuaries and coastal waters. Each student will be required to give an oral presentation. Three lecture hours per week. F.
475L  **Marine Ecology Laboratory.** (1) (=Marine Science 475L) (Coreq: Biology 475) The laboratory will demonstrate the topics and principles presented in lecture. Three laboratory hours per week. F.

476  **Marine Plankton.** (3) (=Marine Science 476) (Prereq: Biology 302) (Coreq: Biology 476L) This course explores the structure and function of planktonic communities. The role of phytoplankton, zooplankton and bacteria are examined in detail. Concepts such as: mineral cycling, energy flow, predator/prey relationships, trophic interactions as well as spatial and temporal dynamics are investigated in lecture, discussion, and an integrated laboratory setting. Three lecture hours per week. S.

476L  **Marine Plankton Laboratory.** (1) (=Marine Science 476L) (Coreq: Biology 476) The laboratory will demonstrate the topics and principles presented in lecture. The laboratory consists of field studies conducted in estuarine and marine environments and may require weekend commitments. Three laboratory hours per week. S.

477  **Ecology of Coral Reefs.** (3) (= Marine Science 477) (Prereq: Permission of instructor) Principles of organization, structure, productivity and biological diversity of coral reef ecosystems, with emphasis on their sensitivity and stability. Three lecture hours per week plus a two-week field experience on a tropical coral reef. Su.

480  **Vertebrate Zoology.** (3) (Prereq: Biology 122 or permission of instructor) (Coreq: Biology 480L) The classification and natural history of vertebrates with additional emphasis on adaptive features in the functional morphology and ethology of animals. Three lecture hours per week. SU II, odd years.

480L  **Vertebrate Zoology Laboratory.** (1) (Coreq: Biology 480 or permission of instructor) Laboratory and field experiences emphasizing the topics covered in Biology 480. Laboratories will be centered around field observations of local vertebrates and may include field trips at "unusual" times - nights, early mornings and weekends. Four laboratory hours per week. SU II, odd years.

482  **Plant Ecology.** (3) (Prereq: Biology 121, 122) (Coreq: Biology 482L) A survey of natural plant communities and theories of plant ecology including the interrelationships between plants and their environment. Three lecture hours per week. S, even years.

482L  **Plant Ecology Laboratory.** (1) (Prereq: Biology 121L/122L) (Coreq: Biology 482) Applications of principles and techniques used in the study of plants and their ecology, both in the lab and in the field. Three laboratory hours per week. S, even years.

483  **Population Biology.** (3) (Prereq: Biology 122) (Coreq: Biology 483L) This course will focus on learning core population characteristics such as genetics, growth, and intraspecific interactions. There will also be an introduction to metapopulations and the history of population ecology. Three lecture hours per week. S.
(Biology, Business Administration)

483L  **Population Biology Laboratory.**  (1) (Coreq: Biology 483) Laboratory exercises to accompany Biology 483. Three laboratory hours per week.

484  **Conservation Ecology.**  (3)(Prereq: Biology 370)(Coreq: Biology 484L) This course will provide students with a comprehensive framework of conservation ecology. Students that successfully complete this course will learn the techniques used to study biodiversity and become familiar with the framework used to address problems in conservation biology. Three lecture hours per week. Offered on demand.

484L  **Conservation Ecology Laboratory.**  (1)(Coreq: Biology 484) This lab course gives students the opportunity to further their knowledge of conservation biology through hands-on, field and laboratory-based exercises. Three laboratory hours per week. Offered on demand.

488  **Wetland Plant Ecology.**  (3) (=Marine Science 478) (Prereq: Biology 121, 122 or Marine Science 302)(Coreq: Biology 488L)(Biology 370 is recommended.) An introduction to wetland types, wetland processes, and wetland management. Types of wetlands covered will include tidal freshwater, tidal saltwater, mangroves, interior freshwater, bogs, swamps, and riparian. Processes covered will include hydrology, biogeochemistry, and biological adaptation. Wetland management topics will include wetland definitions, classification, evaluation, manipulation, creation, and protection. Three lecture hours per week. F, odd years.

488L  **Wetland Plant Ecology Laboratory.**  (1)(=Marine Science 478L)(Prereq: Biology 113L or Marine Science 302L)(Coreq: Biology 478)(Biology 370L is recommended) Applications of principles and techniques used in the study of wetland plants and their ecology, both in the lab and in the field. Three laboratory hours per week. F, odd years.

499  **Directed Undergraduate Research.**  (1-6) (Prereq: Permission of instructor and approved contract) Selected and structured undergraduate research projects conducted with faculty direction and participation. Projects will involve the exploration of biological problems with the scientific method. One conference and at least 5 laboratory or field research hours per week. F, S.

**BUSINESS ADMINISTRATION (CBAD)**

119  **Introduction to Business.**  (3) Open to all students interested in a survey of the variety of activities that occur in a business organization, designed to acquaint the student with various types and forms of business organizations, operations of our economic system, and social and economic institutions which relate directly to business. Careers in business are also surveyed. Open only to freshmen or by permission of the Dean.

In addition to satisfying specific prerequisites listed for each course, registration for 200-level courses in the Wall College of Business is restricted to students who have earned 24 or more credit hours.
Financial / Managerial Accounting I. (3) (Prereq: Success Seminar for Business Majors and completion of 24 semester hours) The financial accounting cycle with emphasis on using financial statements and budgets to initiate and assess business operations...preparation of financial statements, budgets, and business plan for a service and manufacturing company. F, S.

Financial / Managerial Accounting II. (3) (Prereq: Grade of C or above in Business Administration 201) Continuation of Business Administration 201...accounting for and reporting revenue and expense cycles...accounting for operations in a corporate environment, including job-order and standard costing of inventories...accounting for noncurrent assets, capital expenditure decisions, long-term debt, and capital stock. F, S.

Business Statistics. (3) (Prereq: Success Seminar 195 for business majors or equivalent for all majors, a grade of C or above in Computer Science 105 or equivalent, and Mathematics 130) Basic methods of descriptive statistics and statistical inference...probability, hypothesis testing, and linear regression with an emphasis on decision making in business. Business administration majors must take Business Administration 292 in the semester following successful completion, and may not receive credit for Psychology 225 or Statistics 201. F, S.

Decision Analysis. (3) (Prereq: Grade of C or above in Business Administration 291) Emphasis on logical/rational decision making and exposure to conceptual and quantitative techniques and computer applications that aid decision makers in solving real-world problems. Business Administration majors must take this course in the semester following successful completion of Business Administration 291. F, S.

In addition to satisfying specific prerequisites listed for each course, registration for 300-level courses in the Wall College of Business is restricted to students who have earned 54 or more semester hours.

Intermediate Accounting I. (3) (Prereq: Grade of C or above in Business Administration 202) Theoretical foundation of generally accepted accounting principles, review of the accounting cycle leading to preparation of financial statements, accounting recognition of assets with special emphasis on cash, receivables, inventories, property, plant and equipment, and the time value of money. F.

Intermediate Accounting II. (3) (Prereq: Grade of C or above in Business Administration 330) Accounting recognition of depreciable assets, intangible assets, investments, current liabilities, long-term liabilities. Stockholders equity topics and accounting theory underlying revenue recognition. S.

Intermediate Accounting III. (3) (Prereq: Grade of C or above in Business Administration 331) Advanced financial accounting topics including earnings per share, leases, pensions, accounting for income taxes, preparation of cash flow statements, and financial statement analysis. Partnership accounting topics include formation, operation, and liquidation. F.
Cost Accounting. (3) (Prereq: Grade of C or above in Business Administration 202) Cost accounting for manufacturing operations...topics include cost-volume profit analysis; job-order, process, and standard costing; budgeting; and decision making under uncertainty. F.

Accounting Systems and Data Processing. (3) (Prereq: Grade of C or above in Computer Science 105 or equivalent and concurrent enrollment in Business Administration 330). Accounting systems as collector and processor of data necessary for effective control of a business organization. Emphasis on electronic data processing and data base management. F.

Legal Environment of Business. (3) The legal and judicial system, the law and business (tort, contracts, agency, business organizations), government and regulations, and government protection. F, S.

Commercial Law. (3) The law of contracts and the Uniform Commercial Code, including the sale of goods, commercial paper, bank deposits and collections, secured transactions, debtor and creditor rights, bailments and bankruptcy. F, S.

Marketing. (3) (Prereq: Grade of C or above in Economics 101 or 202) A study of the marketing of goods and services, including legal, social, economic, and technological considerations; consumer behavior and target markets; product; pricing; promotion; channels of distribution, and development of marketing strategy. F, S.

Consumer Market Analysis. (3) (Prereq: Grade of C or above in Business Administration 350) A study of buying behavior, both consumer and industrial, and the marketing research process... includes psychological, social and economic influences on buying behavior, along with basic market research methods for analyzing those influences. F, S.

Marketing Research. (3) (Prereq: Grade of C or above in Business Administration 291 and 350) Case problems and field projects in the application of marketing research methodology, topics include problem diagnosis, research design, questionnaire preparation, sampling plans, and the collection, analysis, and interpretation of data. F, S.

Stock Market Challenge. (1) Offers participation in a realistic stock market simulation. Students compete in managing a portfolio of stocks. Open to all students in the university. Grading is on a pass/fail basis only. may be repeated for credit.

Business Finance. (3) (Prereq: Grade of C or above in Business Administration 202, 291 or Statistics 201, Economics 101 or 202, and successful completion of Mathematics 132 or 150) Theoretical foundation of optimal financial policy...emphasis on working capital, capital budgeting, financing, and dividend decisions and how they affect the valuation of the firm. F, S.
Introduction to Real Estate. (3) An overview of legal, governmental, and market forces which combine with land and materials to form the unique commodity called real estate. Introduces career opportunities, decision methodologies, and market dynamics in the areas of finance, appraisal, market analyses, brokerage, and property management.

Management and Organizations. (3) (Writing Intensive) Survey of the basic principles of management with emphasis on social and behavioral issues, provides the basis for thinking about complex business situations in the framework of the management process. F, S.

Organizational Theory & Behavior. (3) (Prereq: Grade of C or above in Business Administration 371 and completion of 54 semester hours) A study of the organization, focusing on interactions between organizational designs and people within an ethical framework. The dynamics and links between individuals, groups, and the national and international environment are analyzed to highlight the determinants of organizational effectiveness. A major focus is on the development of positive interpersonal relations. F, S.

Human Resource Management. (3) (Prereq: Grade of C or above in Business Administration 371) Develops an understanding of personnel administration as a staff function through a study of modern-day concepts and practices such as research and standards, employment, training and education, safety and health, employee services and industrial relations. F, S.

Principles of Business Conduct. (3) Provides real world experiences that intellectually, socially and professionally groom students for various careers in business. Topics include leadership skills, personal ethics, verbal and written communication skills, business and social etiquette, personal appearance and development, and cultural enrichment. F. S.

Wall Fellows I. (3) (Prereq: Second semester Junior) The courses comprising the Wall Fellows program are designed to equip students with tools, both academic and social, which will make them top candidates for major U.S. corporations. Participants will be selected during the Fall semester of their junior year via a competitive application and interview process. S.

Management Information Systems. (3) (=Resort Tourism Management 393) (Prereq: Grade of C or above in Computer Science 105 or equivalent and Business Administration 371) A study of the use of information systems in business, emphasis is on the identification of practical, managerial, and ethical dilemmas related to the development, implementation, and use of information systems. F, S.

Independent Study. Written contract between student and instructor, and approved by the Dean. A maximum of 15 credit hours of Business Administration 399 and 499 combined may be taken.

In addition to satisfying specific prerequisites listed for each course, registration for 400-level courses in the Wall College of Business is restricted to students who have earned 84 or more credit hours.
401  **International Business.** (3) Prereq: Grade of C or above in Business Administration 350, 363, 371) A study of the significant aspects of international business operations, including historical development of foreign trade policy and operative problems of international business operations, principle areas of study are: international business and the nation-state, assessing and forecasting the international business environment, and managing the multinational enterprise. F.

402  **Study Abroad in International Business.** (3) (Prereq: Grade of C or above in Business Administration 371 and 372 or approval of instructor) A course designed to prepare students to better understand and evaluate the different approaches taken by companies and organizations from different national backgrounds. Focus will be on the economic, sociocultural, and political-legal environments of a foreign country, including how business practices differ from those used by companies here in the United States.

426  **Managerial Economics.** (3) (=Economics 326)(Prereq: Admission to the Wall College of Business and a Grade of C or above in Business Administration 371) Study of the application of the economic theory of profits, competition, demand, and costs.

434  **Controllership.** (3) (Prereq: Business Administration 331, 333, 363) A capstone course designed primarily for accounting and finance majors who are interested in pursuing a career in industry. CMA/CFA examination topics include controller responsibilities, advanced cost techniques, strategic planning and budgeting, and tax issues other than income tax.

439  **Income Taxation for Business Entities.** (3) (Prereq: Completion of 54 semester hours) Introduction to the income taxation of business entities, including sole proprietorships, partnerships, and corporations. Basic concepts of the federal income tax system...gross income, business deductions, property transactions, comparison of business entities...on-line tax research and tax return preparation. F.

440  **Individual Income Taxation.** (3) (Prereq: Completion of 54 semester hours) Introduction to sources of income tax law, basic concepts, property transactions, and research with consideration of filing status, exemptions, gross income, deductions, and computations leading to preparation of individual tax returns. S.

451  **Retailing Management.** (3) (Prereq: Admission to the Wall College of Business and a Grade of C or above in Business Administration 350) Emphasizes the specific activities required of managing a retail outlet such as research, store location, organization, merchandise planning and management, promotion and advertising, pricing policies, and creating, integrating and controlling the retail strategy. S.

453  **Integrated Marketing Communications.** (3) (Prereq: Grade of C or better in Business Administration 350) The study of advertising and promotion from an integrated marketing communications perspective. Emphasis is given to advertising, sales promotion, direct marketing, personal selling, and public relations/publicity. F.
International Marketing. (3) (Prereq: Grade of C or better in Business Administration 350) The study of planning and conducting transactions across national borders for the purpose of satisfying a target market, including environmental factors such as law, politics, society, economy, and technology, as well as the development of international marketing strategy. S.

Marketing Strategy. (3) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 351 and 357.) Analysis of case problems dealing with the development of strategies and plans for marketing consumer and industrial products. Topics include marketing organization, product, price, promotion, distribution, industry and sales forecasting and analysis of marketing costs. F, S.

Capital Budgeting. (3) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 363) Financial theory and techniques for the analysis and solution of financial problems dealing with asset management. Major emphasis is on the management of long-term assets; however, working capital management will also be covered. F.

Financial Decision Making. (3) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 363) Financial theory and techniques for the analysis and solution of financial problems dealing with acquisition of funds, topics include capital structure, cost of capital, dividend policy, and valuation. The case method and computer simulation is utilized. F. S.

Financial Institutions and Markets. (3) (= Economics 310) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 363) Principal institutions and markets comprising the financial system; their roles in short-term, long-term and equity financing, interest rate determination and capital formation; interrelationships between domestic and international financial markets; government policy objectives and regulations as influences on the financial system. S.

Multinational Business Finance. (3) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 363) Analysis of institutions and practices unique to the financial management of multinational business enterprises. All aspects of international financial management are covered with a concentration on the corporate form and the increasing importance of global integration of money and capital markets. F.

Individual Financial Planning. (3) (Prereq: Grade of C or above in Business Administration 363) In-depth coverage of money management concepts and practices necessary for intelligent control over personal income and expenditures, topics include introduction to financial planning, risk management, investment management, tax planning and management, retirement planning and employee benefits, and estate planning. Utilizes case analyses. F.
(Business Administration)

**465 Financial Statement Analysis.** (3) (Prereq: A grade of C or above in Business Administration 363.) The analysis of the profitability and viability of a commercial enterprise. Primary focus given to the analysis of a firm’s accounting practices and financial statements from the framework of overall business analysis. F.

**467 Real Estate Finance and Investment.** (3) (Prereq: Grade C or above in Business Administration 363) (= Resort Tourism Management 467) Principles and practices in real estate finance focusing on institutions, instruments, and determinants of terms and availability of credit, topics include interest and yield mechanics, cash flow analysis, risk analysis, and various loan strategies or packages.

**468 Advanced Corporate Finance.** (3) (Prereq: Business Administration 460 and 461) In-depth coverage of advanced topics in corporate financial management using computer simulations and dynamic multi period case studies. Long- and short-term corporate financial policy formation is examined against the backdrop of firm value maximization and the market for corporate control. Special consideration is given to mergers, acquisitions, and corporate restructuring. SEC reporting requirements and formats are integrated throughout. S.

**469 Investment Analysis and Portfolio Management.** (3) (Prereq: Grade of C or above in Business Administration 363) Conceptual and analytical framework for formulating investment policies, analyzing securities and constructing portfolios. S.

**471 Leadership in Project Management.** (3) (Prereq: Grade of C or above in Business Administration 371 and 372 and completion of 84 semester hours) Skills and techniques for effective project management. Topics include project development, budget management, scheduling, quality control, and team building. F. S.

**472 Cross-Cultural Management.** (3) (Prereq: Grade of C or above in Business Administration 371 and 372 or Business Administration 374 and completion of 84 semester hours) This course involves an analysis of how cultural, economic, and societal influences affect the practices of management. Concepts and practices of planning, organizing, leading employees, and other concerns are examined across different national settings. The human effect in the managerial process is emphasized, and situational influences are identified and examined. F.

**473 Initiation and Management of New Business Enterprise.** (3) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 371) Analysis of proposed business opportunities, planning and establishing a business organization to exploit an opportunity, and management of small business. F.

**474 Quality Process Management** (3) (= Resort Tourism Management 474) (Prereq: A grade of C or above in Business Administration 371 and completion of 84 semester hours.) The systematic process through which managers regulate organizational activities to meet planned goals and standards of quality. Topics will include different types of quality control processes, total quality management, product and service quality techniques, and the uses of information technology for insuring quality. S.
Production/Operations Management. (3) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 350, 363, and 371) A study of the interactions among organizational resources used in some combination to provide the enterprise’s product or service. Special attention is given to decision making using conventional and quantitative tools and techniques with emphasis on the production function. F, S.

Strategic Management. (3) (Writing Intensive) (Prereq: Admission to the Wall College of Business and a Grade of C or above in Business Administration 350, 363, and 371 and senior standing) Analysis of case problems dealing with the formulation and implementation of organizational strategy and policy, including appraisal of the external environment, top management, marketing, finance, operations, human resources, and the organizational structure. F, S.

Wall Fellows II. (3) (Prereq: Business Administration 381) The courses comprising the Wall Fellows Program are designed to equip students with tools, both academic and social, which will make them top candidates for major U.S. corporations. Participants will be selected during the fall semester of their junior year via a competitive application and interview process. F.

Wall Fellows III. (3) (Prereq: Business Administration 481) The courses comprising the Wall Fellows Program are designed to equip students with tools, both academic and social, which will make them top candidates for major U.S. corporations. Participants will be selected during the fall semester of their junior year via a competitive application and interview process. S.

Seminar in Resort Tourism Planning. (3) (=Resort Tourism Management 490) (Prereq: Completion of 84 semester hours.) This course examines public policy in tourism destinations. Special emphasis is placed on the interrelationships between tourist demand, tourism information systems, tourism goods and services and tourism host communities. Students develop plans for a proposed tourism site.

Business Internship. (3-6) (Prereq: Junior standing, minimum GPA of 2.5, and approval of the Associate Dean) Supervised work experience of at least 15 hours per week for 12-14 weeks...internship format must be approved by internship director...a journal detailing work activities will be required.

Industry Field Study. (3) (Prereq: Admission to the Wall College of Business and permission of the Dean) Structured around visits to selected corporations and organizations where management officials will discuss matters confronting today’s businessmen, this course is designed to bridge the gap between the classroom and the real world of business. An honors course consisting of students selected by the Wall College of Business Administration on the basis of academic achievement.

Selected Topics in Business. (3) Provides Business Administration majors an opportunity to study in small groups, selected topics in business/economics under the guidance of a faculty member. A maximum of 15 credit hours of Business Administration 399 and 499 combined may be taken.
(Business Administration, Chemistry)

533 **Governmental Accounting.** (3) (Prereq: Grade of C or above in Business Administration 330) Accounting techniques for governmental and not-for-profit entities, topics include accounting standards and procedures for governmental units, colleges and universities, health care, and voluntary health and welfare organizations.

535 **Advanced Accounting.** (3) (Prereq: Grade of C or above in Business Administration 332, or concurrent enrollment in Business Administration 332) Financial accounting for investments in stock and consolidations, foreign currency operations, not-for-profit governmental units, colleges, universities, and voluntary health and welfare organizations. S.

537 **Auditing Theory.** (3) (Prereq: Grade of C or above in Business Administration 291, 331 and 333) Generally accepted auditing standards governing external financial audits, audit techniques and procedures, evaluation of internal control systems and the audit opinion. S.

**CHEMISTRY (CHEM)**

101 **Introductory Chemistry.** (3) First portion of a two-semester terminal course (Chemistry 101-Chemistry 102) designed primarily for nursing students and those seeking a one-year science elective. Engineers, science majors, pre-meds, etc., requiring more than two semesters of chemistry should not enroll in this course. Three lecture hours per week. S, F.

101L **Introductory Chemistry Laboratory.** (1) (Coreq: Chemistry 101) The laboratory demonstrates the topics and principles presented in the lecture. Three laboratory hours per week. S, F.

102 **Introduction to Organic and Biochemistry.** (3) (Prereq: Chemistry 101 or 111) Second portion of a two-semester terminal course (Chemistry 101-Chemistry 102) Engineers, science majors, pre-meds, etc., should not enroll in this course. Three lecture hours per week. S.

102L **Introduction to Organic and Biochemistry Laboratory.** (1) (Prereq: Chemistry 101 and 101L; Coreq: Chemistry 102) The laboratory demonstrates the topics and principles presented in the lecture. Three laboratory hours per week. S.

111 **General Chemistry I.** (3) (Prereq: A grade of C or better in Mathematics 130 or equivalent) A survey of chemical structure, reactivity and physical properties. Three lectures, and one two-hour workshop per week. F, S, Su.

111L **General Chemistry Laboratory I.** (1) (Coreq or Prereq: Chemistry 111) This course is an introduction to qualitative inorganic reaction chemistry and quantitative methods of chemical analysis, three hours per week. F, S, Su.
112 General Chemistry II. (3) (Prereq: Chemistry 111) A continuation of Chemistry 111 to include quantitative treatment of chemical kinetics, aqueous solution equilibria, thermodynamics and electrochemistry. Three lectures with two hours of optional workshop per week. F, S, Su.

112L General Chemistry Laboratory II. (1) (Coreq or prereq: Chemistry 112) This course consists of laboratory methods of quantitative study of chemical kinetics, equilibria, thermodynamics and electrochemistry. F, S, Su.

299 Introduction to Research. (1) (Prereq: Chemistry 112) This course is a basic introduction to the utilization of library resources, electronic resources and journals in research. Search techniques as well as critical evaluation of the material obtained are discussed as it relates to developing a new project, or reviewing the current status of research in a given topic. Exposure to ongoing research projects within the department is integral to this course. F.

301 Workshop Leader Training. (1) (Permission of Instructor and acceptance into the department of chemistry workshop leader program) This course focuses on the preparation of leaders for workshops in chemistry. Learning theory, group dynamics, pedagogy, and student development as they apply to chemistry workshops are covered. The course is also used to review workshop and related course materials. Enrollment in this course at least once is a requirement for all chemistry workshop leaders. F.

321 Quantitative Analysis. (3) (Prereq: Chemistry 112; Coreq: Chemistry 321L) Theory and practice of "wet" analytical methods including statistics, volumetric analysis, simple and coupled aqueous equilibria, including spreadsheet analysis and simulation methods. Fundamentals of spectrophotometry and potentiometry. F.

321L Quantitative Analysis Laboratory. (1) (Coreq: Chemistry 321) The practice and application of "wet" analytical methods including solution preparation, volumetric, spectrophotometric and potentiometric methods. F.


331L General Organic Chemistry Laboratory I. (1) (Prereq or Coreq: Chemistry 331) A survey of laboratory methods of organic chemistry. Three laboratory hours per week. F.

332 General Organic Chemistry II. (3) (Prereq: Chemistry 331) A continuation of Chemistry 331. Three lecture hours per week. S, Su.

332L General Organic Chemistry Laboratory II. (1) (Prereq: Chemistry 331L; Coreq: Chemistry 332) Laboratory exercises to accompany Chemistry 332. Three laboratory hours per week. S, Su.

351 Biochemistry I. (3) (Prereq: Chemistry 332) Three 1-hour lecture, one 3-hour laboratory. Structure and function of amino acids, peptides, and proteins. Enzyme kinetics and mechanisms. Membrane structure and function. Metabolism
principles glycolysis, tricarboxylic acid cycle, electron transport, and oxidative phosphorylation. Carbohydrates and fatty acid metabolisms. Photosynthesis. Offered on demand.

351L Biochemistry Laboratory I. (1) (Coreq: Chemistry 351) This course covers experiments designed to reinforce those topics covered in the lecture. Protein analysis and purification, enzyme activity determination, lipid extraction and analysis, and electrophoretic analyses. Offered on demand.


352L Biochemistry Laboratory I. (1) (Coreq: Chemistry 352 and Prereq: Chemistry 351 and 351L) This course covers experiments designed to reinforce those topics covered in the lecture: protein synthesis, nucleic acid extractions, and electrophoretic analyses. Offered on demand.

398 Junior Chemistry Seminar. (1) (Prereq: Chemistry 299) This course covers oral and written presentations of literature research papers. Review of library and on-line searching in bibliography development. Critical review of peer manuscripts and presentations. Career planning and management. F.

399 Independent Study. (1-6) (Prereq: Permission of instructor and approved contract) Directed study and/or research on specific topics. F, S.

405 Principles of Physical Chemistry. (3) (Prereq: Chemistry 112, Physics 202 or 212, Math 160) This course covers the fundamental principles of chemical and physical changes as related to bulk properties and molecular structure, especially as they are related to biochemical processes. Topics are: gas properties, kinetics, thermodynamics, equilibrium quantum chemistry, spectroscopy and statistical thermodynamics. F, odd years.

411 Inorganic Chemistry. (3) (Prereq: Chemistry 441 or permission of instructor) Concepts and models in inorganic chemistry. This course includes as its core atomic structure and the periodic table, localized bonding, hydrogen bonding, and weak interactions. Specific topics such as chemistry of coordination compounds, organometallic chemistry and bioinorganic chemistry are also included to fit the particular needs of the students taking this course. S, even years.

411L Inorganic Laboratory. (1) (Coreq: Chemistry 411) Synthesis and characterization of selected inorganic compounds. This experimental work supplements the theoretical material presented in Chemistry 411. S, even years.

422 Instrumental Analysis. (2) (Prereq: Chemistry 321) Two one-hour lecture, two three-hour laboratory. Theory and applications of instrumental methods of analysis. Electrochemical methods, spectroscopy, chromatographic methods, resonance methods and mass spectroscopy are studied. The experiments to be
performed are tailored to fulfill the needs of the different areas of emphasis within the chemistry program. S.

**422L Instrumental Analysis Laboratory.** (2) (Prereq: Chemistry 321 and 321L) Coreq: Chemistry 422) Experiments are performed that are project-based. Successful completion of these projects generally involves the use and mastery of several instruments discussed in lecture. Two hours laboratory per week. S.

**433 Advanced Organic Chemistry.** (2) (Prereq: Chemistry 332-332L) The course supplements and extends the knowledge base of Organic Chemistry 331-332. The subject matter includes a look at some general methods used to study mechanistic pathways and how the data obtained can be interpreted to deduce the accepted mechanisms for selected types of reactions. Also included is a study of synthetic organic reactions and their applications as well as a look at methods for determining the structures of unknown organic compounds. F, odd years.

**433L Advanced Organic Chemistry Laboratory.** (2) (Prereq or Coreq: Chemistry 433) The experiments and assignments supplement the materials presented in Chemistry 433 and include the study of mechanisms, syntheses, and identification of unknown compounds and mixtures. F, odd years.

**441 Physical Chemistry.** (3) (Prereq: Mathematics 161 or 260, Chemistry 112, Physics 202 or 212; Coreq: Mathematics 260, Chemistry 441L) Theories and laws relating to chemical and physical changes including gas properties, thermodynamics, kinetic theory of gases and kinetics of chemical reactions. F.

**441L Physical Chemistry Laboratory.** (1) (Prereq: Chemistry 321; Coreq: Chemistry 441) Applications of physical chemistry techniques. F.

**442 Physical Chemistry.** (3) (Prereq: Chemistry 441; Coreq: 442L) Theories and laws relating to molecular structure including quantum chemistry, statistical thermodynamics, determination of molecular structure and electric and magnetic properties of molecules. S.

**442L Physical Chemistry Laboratory.** (1) (Prereq: Chemistry 441L; Coreq: Chemistry 442) Application of physical chemistry techniques for the determination of molecular structure. S.

**450 Principles of Biochemistry.** (3) (Prereq: Chemistry 331 and permission of instructor) A survey of the fundamental principles of biochemistry. Three hours of lecture per week. S.

**450L Principles of Biochemistry Laboratory.** (1) (Prereq: Chemistry 331/331L and permission of instructor) (Coreq: Chemistry 450) The laboratory demonstrates the topics and principles presented in the lecture. Three hours laboratory per week.

**499 Directed Undergraduate Research.** (1-6) (Prereq: A contract must be approved by the instructor and the department chair by the time of registration) Structured undergraduate research projects conducted with faculty direction and participation. Projects explore chemical or related problems using the scientific method. One conference and no less than 5 lab research hours per week. F, S, Su.
CLASSICAL STUDIES (CLAS)

300 History of Ancient Philosophy. (3) (= Philosophy 300) An introduction to the development of philosophy in the ancient world through study of the works of representative philosophers.

302 Political Thought of Thucydides. (3) (Writing Intensive) (Prereq: Politics 300, 301, or instructor's consent) (= Politics 302) A study of the political thought of Thucydides through an intensive reading of the War of the Peloponnesians and the Athenians.

315 Ancient Greece. (3) (Prereq: Sophomore standing or above, or permission of instructor) (= History 315) An exploration of the Greek genius of the fifth and fourth centuries, B.C., and especially the works of Herodotus, Thucydides, Aeschylus, Plato, and Aristotle. Time will also be devoted to Greece’s decline and the simultaneous rise of its Macedonian conquerors, Philip II and Alexander III the Great.

316 Roman Republic and Empire. (3) (Prereq: Sophomore standing or above, or permission of instructor) (= History 316) An examination of the political history of the Roman state, from its foundation by the legendary Romulus to its destruction by barbarian invaders. Special emphasis upon the failure of Republican government and the disappearance of personal freedom as one family of unparalleled ability and wealth fights for victory in a bloody civil war. Imperialism, militarism, bureaucratization, and the advent of Christianity are highlighted. Colorful personalities, such as those of Marc Antony and Cleopatra, examined in some detail.

318 Classical Mythology. (3) (Writing Intensive) (Prereq: Sophomore standing or above, or permission of instructor) (= History 318) This course investigates the world’s creation, the Greek and Roman divinities that once governed human experience, and the activities of such heroes as Perseus and Theseus. The course is designed to provide an intellectual history of Greco-Roman civilization and to enhance the appreciation of the literature and art influenced by this ancient culture.

361 History of Theater. (3) (= Theater 361) A survey of plays, playwrights, actors, production, and the physical development of theaters. Reading of representative plays, primarily from antiquity, is required.

401 History of Political Thought I. (3) (Writing Intensive) (Prereq: Politics 300, 301, or instructor's consent) (= Politics 401) A study of the history of political thought from Socrates through Aristotle.

405 Plato. (3) (Prereq: Philosophy 101 or instructor's consent) (= Philosophy 405) An intensive study of selected dialogues.

406 Aristotle. (3) (Prereq: Philosophy 101 or instructor's consent) (= Philosophy 406) An intensive study of some of the more important of Aristotle's works.
### COMMUNICATION (COMM)

**101** Introduction to Communication (3) This course introduces students to the study of communication, its history, theories and principles and serves to improve critical thinking, perception and communicative awareness.

**274** Organizational Communication. (3) (Prereq: Communication 101) Examines communication systems and communication flow in formal organizations and deals with communication climate, leadership, work control systems, networks and performance enhancement and evaluation.

**302** Communication Law and Ethics. (3) (Prereq: Communication 101) This is a course in legal cases and ethical issues as they apply to communication problems, precedents and negligence or oversight in corporations and organizations.

**401** Communication Theory. (3) (Prereq: Communication 101 and Communication 274 and Junior standing) This seminal course for the minor addresses communication theory and examines the roots of communication in the social and behavioral sciences and exposes students to both qualitative and quantitative studies as they apply to various communication theories.

**495** Communication Internship. (3) (Prereq: Communication 101 and Communication 274 and at least 90 credit hours) The guided internship requires 120 hours of on-site work, a journal, and a final paper. The purpose of the course is to provide students with practical application opportunities for their knowledge and skills, to introduce them to local and regional employers in their field of study, and to enhance networking opportunities.

### COMPUTER SCIENCE (CSCI)

**105** Introduction to Computer Applications. (3) (Computer Usage) A survey course designed for students majoring in areas other than Computer Science or those with no computer experience; course includes an overview of computer hardware with an emphasis on Windows, word processing, spreadsheets, database applications and the Internet. F, S, Su.

**106** Advanced Computer Applications. (3) (Computer Usage) (Prereq: Computer Science 105 or permission of instructor) Advanced computer applications with emphasis on integrating and linking user software applications. This course also includes online collaboration skills, advanced email concepts and Internet. F, S.

**111** Programming in BASIC. (3) (Computer Usage) Computer programming in the BASIC language. F, Su.

**120** Introduction to Web Page Design. (3) This course is an introductory course in web design that provides a foundation for using the imagery of a web page for communicating ideas across the internet. Topics include the utilization of graphic editing and web development software, basic HTML coding, simple graphic editing, web ethics including design and accessibility issues, and publishing WEB pages.
(Computer Science)

130 **Introduction to Computer Science.** (3) (Computer Usage) (Prereq: Mathematics 130 or higher, or currently enrolled in Mathematics 130 or higher) Designed as an introduction to Computer Science for non-majors; provides a comprehensive overview of the field of Computer Science in areas such as machine architecture, data storage, data manipulation, operating systems, algorithms, programming languages, data structures, database structures, computational complexity, and artificial intelligence; includes a brief introduction to programming. S.

140 **Introduction to Algorithmic Design I.** (3) (Computer Usage) (Students are required to have a personal notebook computer for this course) (Prereq: Mathematics 130 or higher, or currently enrolled in Mathematics 130 or higher) (Coreq: Computer Science 140L) An introduction to problem solving and algorithmic design methodology using the C++ programming language, topics include: problem solving techniques, high-level structures, subprograms and modularity, simple, aggregate and user-defined data types, and fundamental algorithms. Program clarity, good coding style and effective documentation are stressed. Three lecture hours per week. F, S, Su.

140L **Introduction to Algorithmic Design I Laboratory.** (1) (Coreq: Computer Science 140) Laboratory demonstrates the topics and principles presented in the lecture.

150 **Introduction to Algorithmic Design II.** (3) (Computer Usage) (Students are required to have a personal notebook computer for this course) (Prereq: Grade of C or above in Computer Science 140) (Coreq: Computer Science 150L) A continuation of Computer Science 140, topics include algorithmic design; complexity analysis; abstract data types and encapsulation; basic data structures and their applications, including stack, queues, linked lists, binary trees, and hash tables; sorting and searching; C++ topics include dynamic memory allocation, recursion, classes, templates, inheritance, and operator overloading. Three lecture hours per week. F, S.

150L **Introduction to Algorithmic Design II Laboratory.** (1) (Coreq: Computer Science 150) Laboratory demonstrates the topics and principles presented in the lecture.

207 **Programming in C++.** (3) (Prereq: Knowledge of a programming language or permission of instructor) Computer programming in the C++ language. Offered on demand.

208 **Programming in Visual Basic.** (3) (Prereq: Computer Science 150) An introduction to programming with Visual Basic including Windows interface controls, Active X controls, and database access using Active X objects. S, odd years.

209 **Programming in Java.** (3) (Prereq: Computer Science 140 and 150) Students will learn to program in the Java programming language. Topics include inheritance, threads, graphics, network programming, and Web-programming. F, even years.
210  **Computer Organization and Programming.** (3) (Prereq: Grade of C or above in Computer Science 140 and Mathematics 174) Logical basis of computer structure, machine representation of information, flow of control, instruction codes, arithmetic and logical operations, indexing, indirect addressing, input-output, sub-routines, linkages, macros. Interpretive and assembly systems, and pushdown stacks. F, S.

220  **Data Structures.** (3) (Prereq: Grade of C or better in Computer Science 150 and 150L and Mathematics 174) A continuation of Computer Science 150 and 150L, topics include analysis of algorithms, with emphasis on computational complexity and advanced algorithms including self adjusting trees, hashing, graphs, sorting, searching, hashing methods, and greedy algorithms. F, S.

280  **Strategies in Problem Solving.** (1) (Prereq: Computer Science 150) The focus of this course is on practical problem solving in both individual and team settings. A variety of problems that require different types of solutions and algorithms will be presented, as well as, problems to be solved. They will also develop programming and teamwork techniques in a competition setting while gaining proficiency in applying a systematic approach to problem solving. F, S.

305  **Ethics in Computer Science.** (1) (Prereq: Academic Standing above Freshman) Provides real-world experiences that stimulate discussion of ethical issues in the technical work place. Topics include: ACM Code of Ethics, general moral responsibilities, privacy security, copyright and ownership agreements, computer crimes, and personal ethics. Class format presents case studies of current news events regarding computer ethics. F, S.

310  **Introduction to Computer Architecture.** (3) (Writing Intensive)(Prereq: Grade of C or above in Computer Science 150, 210 and Mathematics 174) An introduction to the fundamental aspects of a computer system's structure and behavior; binary arithmetic, combinational logic, circuit design, instruction sets, register operations and flip-flops, control system functions, memories, interrupt structures, processors, and performance measures will be covered. F.

330  **Software Engineering I.** (3) (Prereq: Grade of C or better in Computer Science 220) Introduction to the software engineering design process with emphasis on the technical knowledge and skills that a software engineer must possess to design quality software. Topics include concepts of software development, requirements and specification, design and coding, and testing. System analysis and design methodologies are used in team projects. F.

335  **Software Project Management.** (3) (Prereq: Computer Science 330 and Statistics 201/201L) This course will cover tools and techniques in software project management based on the Project Management Body of Knowledge from the Project Management Institute. S.

370  **Data Communication Systems and Networks.** (3) (Prereq: Grade of C or above in Computer Science 310) Communications environment, communications system components, networks, network management and distributed environment, local networks. S.
(Computer Science)

380  **Introduction to the Analysis of Algorithms.**  (3) (Writing Intensive) (Prereq: Grade of C or above in Computer Science 220) An introductory course in the analysis of algorithms, with emphasis on computational complexity including practical applications and the analysis of specific problems and algorithms, course investigates most commonly used algorithm design techniques and also introduces the notion of "hard" problems and approximate solutions. S, even years.

385  **Introduction to Information Systems Security.**  (3) (Prereq: Junior level status or permission of instructor) Comprehensive survey of security policies, models and mechanisms for confidentiality, integrity, and availability. Topics include computer communications, operations, personnel, privacy issues, management and legal and ethical issues. F, odd years.

390  **Theory of Computation.**  (3) (Prereq: Grade of C or above in Computer Science 220 and 310) General models of computation, formal languages and automata theory and algorithmic unsolvability. F, odd years.

399  **Independent Study.**  (1-3) (Prereq: Permission of instructor and approved contract) Directed study and/or research on specific topics. F, S, Su.

409  **Middleware and E-Commerce.**  (3) (Prereq: Computer Science 150, Sophomore Standing, and Information Systems Option) The purpose of this course is to familiarize the student with XHTML and middleware development and the architecture of E-commerce systems. F.

410  **Operating Systems.**  (3) (Prereq: Grade of C or above in Computer Science 220) Basic concepts and terminology of operating systems, I/O and interrupt structures, system structures, processor scheduling, processes and process synchronization, deadlocks, memory management, and other concepts. F.

415  **Systems Programming.**  (3) (Prereq: Grade of C or better in Computer Science 220) The course covers introduction to the ANSI C, POSIX, and SVR4 standards included in UNIX and common UNIX derivatives. Examples of such calls include the standard I/O library and the low-level calls to use files and directories, the calls to create a new process and run a new program, signals, and interprocess communication facilities. There is a particular emphasis on network programming and threads programming. Basic concepts of Operating System design are covered, but a solid background in software engineering principles and OS design are expected. S, even years.

425  **Database Systems Design.**  (3) (Prereq: Grade of C or above in Computer Science 220) An introduction to the theory and methodology for database design and implementation, the relational model, relational algebra, relational calculus, and E/R modeling are introduced, as well as concepts of normalization, data independence, and database languages. Design encompasses issues from the conceptual model to the physical model. F.

430  **Organization of Programming Languages.**  (3) (Prereq: Grade of C or above in Computer Science 220) Formal language concepts, statement types, control structures, compilation vs. interpretation, list processing and string manipulation languages. S.
Introduction to Computer Graphics. (3) (Prereq: Computer Science 220 and Mathematics 344 or permission of instructor) An overview of the elements of 2D and 3D graphics, includes topics on raster graphics, geometrical transformations, parallel and perspective projections for 3D viewing, interaction techniques, representation of curves and surfaces, solid modeling and topics on visual realism. S, odd years.

Principles of Compiler Design. (3) (Prereq: Grade of C or above in Computer Science 220 and Computer Science 310) Introduction to programming language structure, lexical analysis, syntax analysis, code generations, error repair, and optimization. F.

Algorithms in Bioinformatics. (3) (Prereq: Senior level status or permission of instructor) (Coreq: basic knowledge of Linear Algebra in Calculus. Solid background in Programming, Data Structures, and design of Algorithms.) Introduction to the main algorithms used in Data Mining of Genomic sequences and evaluation of gene expression data from Micro Arrays. Topics include Dynamic programming, Hidden Markov Models, Support Vector Machines, Clustering algorithms, and Singular Value Decomposition. S.

Introduction to Artificial Intelligence. (3) (Prereq: Computer Science 220 and Mathematics 174) Covers the fundamentals of Artificial Intelligence (AI); topics and techniques for analyzing and developing intelligent systems; programming in an AI language. Coverage may include applications in areas such as expert systems, neural networks, fuzzy logic, robotics, etc. F, even years.

Introduction to Robotics. (3) (Prereq: Computer Science 220) An introduction to the fundamentals of mobile robotics including robot hardware, sensors, obstacle avoidance, navigation, mapping, path planning and robot architectures. F, odd years.

Software Engineering II. (3) (Prereq: Grade of C or better in Computer Science 330 and 425) This course is a continuation of the software engineering design principles introduced in Computer Science 330. Topics include project requirements, design specifications, testing, project management and group dynamics. Student will design, code, test and implement an information system as part of a team project. S.

Computer Science Internship. (3-6) (Prereq: GPA of 3.0 and knowledge of two programming languages) Supervised work experience of at least 15 hours per week for 12 weeks. Program format is approved by the area director. A written final paper is required. F, S, Su.

Cooperative Education. (1-3) (Prereq: Computer Science major with at least sophomore level status) Cooperative full-time work study arrangement among the University, the business or industry and the student. Arrangements are made in consultation with the department chair. The course may be repeated for a total of 6 hours of credit. F, S, Su.
Topics in Computer Science. (1-3) (Prereq: Permission of instructor) Special projects and recent developments in Computer Science selected to meet current faculty and student interest. Offered on Demand.

CRIMINAL JUSTICE (CRMJ)

Sociology of Crime. (3) (= Sociology 353) Social factors in the development, identification and treatment of criminals.

Sociology of Juvenile Delinquency. (3) (= Sociology 350) Social factors in the development, identification and treatment of delinquents.

The Judicial Process. (3) A study of the growth of law, the law-making function of the courts, the structure and organization of federal and state courts, the procedures involved in civil and criminal cases, and the problems and proposals for reform in the administration of justice.

ECONOMICS (ECON)

Survey of Economics. (3) Designed to familiarize non-business majors with basic macro- and microeconomics models and selected economic problems. Not open to majors in Business Administration and Economics.

Consumer Economics. (3) Designed to acquaint the student with the money management concepts necessary to exercise intelligent control over income and expenditures, topics considered include: budgeting, consumer protection, taxes, credit sources, types of insurance, real estate, stocks, bonds, estate planning and other uses of funds. Not open to students who have received credit for Business Administration 110.

Macroeconomics. (3) (Prereq: Success Seminar 195 for business majors or equivalent for all majors, Mathematics 130, and completion of 24 semester hours) Macroeconomic analysis, basic definitions and concepts, mechanics of pricing fundamentals of American capitalism, national income economics, income and employment theory, and monetary and fiscal policy. F, S.

Microeconomics. (3) (Prereq: Economics 201, and completion of 24 semester hours) Microeconomic analysis, theory of the firm, cost and output determination, marketing pricing, income distribution, and international economics. F. S.

Intermediate Macroeconomic Theory. (3) (Prereq: grade of C or above in Economics 201, 202) An advanced view of the macroeconomy. Role of inputs and technology in economic growth, study of differing schools of thought with respect to macroeconomic behavior. F.

Intermediate Microeconomic Theory. (3) (Prereq: grade of C or above in Economics 301) Microeconomic study of how consumers and firms make choices. Consumer theory is used to derive market demand, theory of the firm to derive market supply, and game theory to analyze interaction among agents. S.
310 **Financial Institutions and Markets.** (3) (=Business Administration 462) (Prereq: Grade of C or above in Economics 202 and Business Administration 363 and admission to the Wall College of Business) Principal institutions and markets comprising the financial system; their roles in short-term, long-term and equity financing, interest rate determination and capital formation; interrelationships between domestic and international financial markets; government policy objectives and regulations as influences on the financial system. F, S.

313 **History of Economic Thought.** (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Development of economic thought over time; comparison of theories of great economists from Adam Smith to John Maynard Keynes and their schools of thought, including classical economics, neoclassical economics, and heterodox economic thought. F.

320 **Environmental and Natural Resource Economics.** (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Interrelationships between the economy and the environment. Study of how economic activities affect the environment, why we may allow more environmental harm than is optimal and how such environmentally harmful activities can be regulated. Resource economics, environmental regulations, monitoring and enforcement, clean technology and global agreements. S.

321 **Government and Business.** (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Examination of issues that confront government and business, allowing students to take sides and defend their positions in debate/discussion format. Topics include: social security privatization, social responsibility of businesses, the minimum wage, double taxation of dividends, and the government’s role in the regulation of business. S.

326 **Managerial Economics.** (3) (=Business Administration 426) (Prereq: Admission to the Wall College of Business and a grade of C or above in Business Administration 371) Study of the theory of the firm, elasticity, product and cost, market concentration and integration. Topics include differing market environments, market power, pricing strategies, market failure, and subsequent government intervention. S.

330 **Economics of Leisure and Tourism.** (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Economic theory is used to explain the demand for leisure and how people make decisions regarding leisure. Economic fundamentals of the tourism industry, development of tourist destinations, tourism in the Grand Strand area and tourism in the global economy. S.

331 **Economics of Sports.** (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) An economic analysis of participatory sports and amateur and professional team sports. Topics include professional sports franchises as business enterprises, economics of sports stadiums, economics of professional sports labor markets, impact of Title IX on collegiate athletic programs, and economic impact of professional team sports and participatory sports on the Grand Strand economy. F.
(Economics) Economics of Human Resources. (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Economic analysis of the strategic aspects of human resource management at the firm and public policy levels. Focus on economic forces that influence hiring standards, employment, worker productivity, training programs, wages, and working conditions in the United States. Topics include the decline of job security, rise in educational and training requirements, managerial compensation and the use of incentive packages, impact of technology, trade, and unionization on employment and wages. Public policy issues include income inequality, safety and health, labor market discrimination, and the minimum wage. F.

Intermediate Economics. (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) A survey of intermediate topics in both micro- and macro-economics; topics include consumer choice, indifference curve analysis, competitive markets and imperfect competition, comparative advantage, and monetary and banking policy. F.

International Economic Policy. (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Study of international trade issues and policy and their impact on workers, firms, and governments; role of international investment, foreign exchange markets, and international migration. F.

Economics of Development. (3) (Prereq: Grade of C or above in Economics 101 or Economics 202) Applies economic models to development and developing countries; study of institutions and international organizations that aid or hamper development; the role of poverty, education, and the environment in development. S.

Independent Study. (3) (Prereq: 54 or more hours) Written contract between student and instructor, approved by the Dean. A maximum of 15 hours may be taken.

Labor Theory. (3) (Prereq: Grade of C or above in Economics 302) Economic analysis of labor markets and the institutions that have evolved to facilitate exchange. Topics include the demand for labor, labor supply, investment in human capital, labor unions and collective bargaining, distribution of personal earnings, and various measures of employment and unemployment in the labor market. F.

International Economic Theory. (3) (Prereq: Grade of C or above in Economics 351) Expanded discussion of the motivation for international trade. Advanced and intuitive explanations of trade policy and international finance models. F.

Introduction to Econometrics. (3) (Prereq: Grade of C or above in Economics 302) Mathematical modeling used to understand and explain economic relationships and theory. Topics include econometric methodology, mathematical modeling, economic forecasting, generalized linear models, and categorical data analysis. S.

Economics of Aging. (3) (Prereq: Enrollment in Certificate of Gerontology Program and permission of instructor) The economic determinants of population aging and the challenges it creates for public policies. Topics include trends in
retirement, retirement planning, the major provisions of the Social Security Act, various types of pension plans provided by employers, aging and gender, and various health, disability, and economic well-being issues of older Americans.  S.

**490 Senior Research Seminar.** (3) (Prereq: Grade of C or above in Economics 302) Capstone course intended to teach students how to conduct original research in economics. Guidance and practice in formulating economic hypotheses, gathering data, analyzing the data, and effectively communicating the results orally and in writing.  S.

**495 The Service Learning Experience in Economics.** (3) (Prereq: Grade of C or above in Economics 302) Group research projects involving service learning and community service coordinated through the Center for Economic and Community Development of the Wall College of Business. Projects may include: economic impact study, cost/benefit analysis, survey analysis, applied econometric analysis, and/or economic modeling.  S.

**497 Internship in Economics.** (3) (Prereq: Grade of C or above in Economics 202) Supervised work experience of at least 15 hours per week for 12-14 weeks. Internship format must be approved by internship director. A maximum of 6 credit hours may be taken.

**EDUCATION (EDUC)**

**110 Careers in Education.** (3) This course is designed to acquaint students with the role of the teacher and the nature of the teaching profession and to assist students in their personal and professional development. Topics addressed include an overview of program requirements for Spadoni College of Education majors and the teaching profession: curriculum, instruction, environment, students, resources, and trends and pressures facing educators today. Included are observations and activities within schools at varied grade-level specialization.

**115 Introduction to Early Childhood Education.** (3) An introduction to teaching young children in early childhood centers (pre-kindergarten through grade four). Observation and activities within cooperating schools (teaching centers) are included. The course is a prerequisite for admission to the professional program in education for all early childhood majors and should be taken, if possible, during the freshman year.

**204 Computer Technology and Instructional Media.** (3) (Computer Usage) A hands-on laboratory approach for developing computer literacy skills and for developing skills necessary to use instructional technology to enhance classroom instruction. Foundations of the electronic portfolio required of all education majors is also included.

**275 Dynamics and Diversity in American Public Education.** (3) This course considers the foundation aspects of American education: the school’s role in society; the historical heritage of schools; the European legal/political/religious impact on American curriculum; the laws controlling state school systems; the legal impact of Supreme Court decisions on educators and students; and an introduction to community, family, and school interactions.
(Education)

332  **The Young Child: Behavior and Development in Early Childhood.**  (3) (Writing Intensive) (Prereq: junior level; Coreq: Education 335) The study of intellectual, physical, social and emotional development for the total human life span with a special emphasis on prenatal through grade three, within an ecological context. Critical thinking, creative expression and diagnosis/assessment are emphasized. A clinical field experience is included.

335  **Introduction to Educational Psychology.**  (3) Psychology of learning, learning theories, stages of development as applied to the learner in the classroom, with attention given to research into learning problems, management, as well as measurement of learning and least restrictive environments for learning.

336  **Introduction to Human Growth and Development.**  (3) (Writing Intensive) (Prereq: junior level; Coreq: Education 335) An investigation of various patterns of intellectual, social, emotional and physical growth of learners from prenatal through adult periods with a focus on developmental applications in educational settings. A clinical field experience is included.

350  **Selected Topics from Middle and Secondary School Mathematics.**  (3) A study of selected topics in mathematics from the middle and secondary school curriculum taught from an advanced standpoint that reflects the concepts as they relate to the school curriculum. Extensive use of graphing calculators and computer software are included.

375  **Learners and the Learning Process.**  (4) (Prereq: junior standing, Education 225 and 225C; Coreq: Education 375C) An investigation of human growth and development (intellectual, social, emotional and physical) and principles of learning as related to classroom environments. Learning theories and various learner needs are explored as they relate to effective classroom instruction. S.

399  **Independent Study.**  (1-3)

402  **Special Topics.**  (1-3)

415  **Teaching in Diverse Classroom Settings.**  (4) (Prereq: senior standing, Education 375 and 375C; Coreq: Education 415C) Study of classrooms today as diverse learning environments. Needs and effective teaching strategies as related to diverse learners are explored. Special attention is given to the interdependence of schooling and culture. S.

425  **Managing the Classroom.**  (4) Study of effective principles and techniques of management in classrooms today. Attention is given to theories and strategies of management of students as well as classroom organization and the relationship between motivation and management. A clinical field experience accompanies this course.

440  **Managing the Curriculum and Learner.**  (3) Study of the K-12 physical education school program which includes curriculum planning, implementation and evaluation with an emphasis on the management of the learner and techniques and philosophies of management. Clinical experiences in the public schools are included.
441 **Elementary School Curriculum and Organization.** (3) Study of the entire school (K-8) program, including grouping, grading, placement, organization of learners and the school for teaching techniques are included.

441b **Middle School Curriculum and Organization.** (3) Study of the middle level program including the grouping, scheduling, grading, and placement of students; school organization, curriculum and teaching techniques are included.

442 **Instructional Theory and Practice-Early Childhood Education.** (3) (Writing Intensive) Application of general teaching models as they apply to subject matter in early childhood settings. The student is expected to demonstrate a variety of instructional competencies during supervised teaching situations in simulated settings and in school classrooms. Clinical experiences in public schools are included.

443 **Instructional Theory and Practice-Elementary Education.** (3) (Writing Intensive) Application of general teaching models as they apply to subject matter in the elementary school. The student is expected to demonstrate a variety of instructional competencies during supervised teaching situations in simulated settings and in school classrooms. Clinical experiences in public schools are included.

444 **Instructional Theory and Practice-Middle and Secondary School.** (3) (Writing Intensive) Applications of teaching and management models related to the student's field of specialization, along with the demonstration of skills of instruction and management during supervised teaching experiences in simulated settings and in school classrooms. Extensive clinical experiences in the public schools are included. F.

445 **Instructional Theory and Practice-Middle School.** (3) Application of general teaching models as they apply to subject matter in the middle school. The student will be expected to demonstrate a variety of instructional competencies during supervised teaching situations in stimulated situations as well as in school classrooms. A significant portion of the course will address proactive and reactive classroom management strategies. Clinical experiences in public schools are included.

446 **Managing the Curriculum and Learners in Middle and Secondary Schools.** (3) Study of secondary school programs to include curriculum planning, implementation and evaluation with an emphasis on the management of the learner and techniques and philosophies of management. Clinical experiences in the public schools are included. F.

466 **Internship in Elementary School (Early Childhood).** (12) F, S.**

467 **Internship in Elementary School (Elementary).** (12) F, S.**

468 **Internship in Middle Level Teaching.** (12) Supervised teaching experience in the middle grades classroom. Interns will be assigned to field placements for a period of no fewer than 60 instructional days.
479 Internship (Physical Education). (12) F, S.**
**All Internship experiences are comprised of supervised teaching experiences in either the appropriate grade level or subject-matter area related to the student’s area of emphasis. Interns are assigned to field placements for a period of no fewer than 60 instructional days. Pass/Fail credit.

480A Teaching of Mathematics in the Primary School. (3) A study of methods, techniques, and materials as they relate to instruction in the field of mathematics in the primary grades.

480B Teaching of Mathematics in the Elementary School. (3) A study of methods, techniques, and materials as they relate to instruction in the field of mathematics in the elementary grades.

486A Teaching of Language Arts and Social Studies Methods Utilizing Multicultural Contexts: Early Childhood. (3) An interdisciplinary approach to the study of language arts and social studies methods and materials in the preschool and primary years utilizing multicultural contexts.

486B Teaching of Language Arts and Social Studies Methods Utilizing Multicultural Contexts: Elementary. (3) An interdisciplinary approach to the study of language arts and social studies methods and materials in the elementary grades utilizing multicultural contexts.

488A Teaching of Science-Early Childhood. (3) A study of methods, techniques and materials as they relate to instruction in the field of science in the preschool and primary grades. This course gives a comprehensive overview of the philosophy, objectives, materials, methods, evaluation alternatives, current research, curriculum trends, and problems in the area of science.

488B Teaching of Science-Elementary. (3) A study of methods, techniques, and materials as they relate to instruction in the field of science in the elementary grades.

489 Materials and Methods of Teaching English/Language Arts in the Middle School. (3) (Coreq: Education 445) The development of knowledge, skills, and attitudes necessary for instruction in English/Language Arts in the middle grades and for the integration of the areas of the curricular concentration. Standards-based instructional planning, integration of concepts, developmentally appropriate instructional strategies, appropriate assessment techniques, and implementation of planned instructional units will be addressed.

490 Materials and Methods of Teaching Social Studies in the Middle School. (3) (Coreq: Education 445) Study of methods, techniques, and materials appropriate to the teaching of social studies at the middle school level. Standards-based instructional planning and strategies for effective teaching in the social studies will be analyzed and evaluated using current research. Emphasis will be placed on but not limited to such topics as the cultural approach to the study of history, reciprocal reinforcement among the disciplines, values classification, controversial issues, citizenship education, and the roles of the social studies as a mirror of society or as a change agent for society.
Materials and Methods of Teaching Science in the Middle School. (3) (Coreq: EDUC 445) Study of methods, techniques, and materials of instruction appropriate to science teaching at the middle level. Students will be expected to plan and implement specific lessons utilizing various resources and techniques. Standards-based instructional planning, integration of concepts, developmentally appropriate instructional strategies, appropriate assessment techniques, and implementation of planned instructional units will be addressed.

Materials and Methods of Teaching Mathematics in the Middle School. (3) (Coreq: Education 445) Study of methods, techniques, and materials of instruction appropriate to mathematics education at the middle school level. The student will be expected to plan and implement specific lessons utilizing various resources and techniques. Standards-based instructional planning, integration of concepts, developmentally appropriate instructional strategies, appropriate assessment techniques, and implementation of planned instructional units will be addressed.

Teaching of Reading in the Elementary School. (3) A study of the various phases of reading and their relationship to modern elementary school curriculum. Emphasis is on the modern practices of teaching reading as they relate to individual learners, readiness activities, decoding skills, vocabulary development, and comprehension. A clinical field experience accompanies study in this course.

Diagnostic Remedial Reading. (3) An examination of the causes of reading difficulties, diagnostic methods for isolating the etiology of such difficulties, and the necessary prescriptive techniques and materials to correct such difficulties. Practical field experiences are provided.

Literacy Methodologies. (3) Study for non-education majors and non-educators in the community as well as for education majors to train individuals as literacy tutors for adults who cannot read or who read poorly and beginning readers in the early school grades. Both on-campus as well as off-campus experiences are required.

Reading in the Middle School. (3) A study of the reading process and readiness to read as related to the teaching of academic areas found in public schools. Alternate methods of instruction and evaluation of concepts and skill development are presented. A clinical field experience accompanies study in this course.

ENGINEERING (ENGR)

Introduction to Engineering. (1) Students are introduced to the engineering profession and engineering disciplines for the purpose of assisting students in their selection of an engineering major. Professional ethics, technical communication, word processing and electronic communication are taught. F.
All students must earn a C or above in English 101 and English 102.

PREREQUISITES:
1. A C or above in English 101 is a prerequisite for English 102.
2. A C or above in English 102 is a prerequisite for all 200 and higher level English courses.
3. One sophomore survey course (English 275, 276, 287, or 288) is a prerequisite for all upper-level literature classes.

101 Composition. (3) Students gain experience in various types of writing. A research paper is required. Revising and editing skills are taught. F, S, Su.

101B Composition. (English as a Second Language). (3) A variation of English 101 for students who speak English as a second language. F.

102 Composition and Literature. (3) (Prereq: Completion of English 101 or 101B with a C or above). Students read and analyze short stories, poems, and plays. Writing assignments include literary analyses and one research paper. Revising and editing skills are taught. F, S, Su.

102B Composition and Literature. (English as a Second Language). (3) (Prereq: Completion of an English 101 course with a grade of C or above). A variation of English 102 for students who speak English as a second language. S.

110 Success Seminar for English Majors (3) (Prereq: A grade of C or above in English 101 or its equivalent) (=Success Seminar for English Majors 195) A seminar on strategies for academic success and career exploration. Required of all English majors the first spring semester the major is declared or the student transfers from another institution. S.

210 Technical Editing. (3) (Prereq: Grade of C or above in English 101 and 102) A rigorous workshop emphasizing essential methods and techniques for editing technical papers, including stylistic editing, substantive editing, and production editing. Students will also edit documents for clarity, conciseness and style appropriate to a particular audience, and acknowledge primary and secondary sources of information using in-text citation. F.

211 Introduction to Technical and Professional Writing. (3) (Prereq: Grade of C or above in English 101 and 102; Grade of B or above in English 210) A practical introduction to principal types and forms of technical writing, including description of a mechanism, process, analysis, definition, and the proposal. S.

212 Theories of Visual Rhetoric. (3) (Prereq: Grade of C or above in English 101 and 102; Grade of B or above in English 210 and English 211) An introduction to the history, principles, theories, and techniques of designing usable documents with an emphasis on rhetorical analysis and the integration of verbal and visual language. Students will study the rhetorical qualities of fonts and typefaces, and the theories and principles that have guided the complex interactions of words and images from antiquity to electronic writing spaces. F.
275 Masterpieces of World Literature I. (3) (Writing Intensive) (Prereq: Satisfactory completion of English 101 and 102). Selected readings of Western and non-Western literature from antiquity to the Renaissance. Students write primarily analytical essays. Some research is required. All readings are in English. F, S, Su.

276 Masterpieces of World Literature II. (3) (Writing Intensive) (Prereq: Satisfactory completion of English 101 and 102). Selected readings of Western and non-Western literature from the Renaissance to modern times. Students write primarily analytical essays. Some research is required. All readings are in English. F, S, Su.

287 Major Writers of American Literature. (3) (Writing Intensive) (Prereq: Satisfactory completion of English 101 and 102). Extensive reading in the works of the major writers of American literature. Writers are studied with reference to background, school, technique, and philosophy. Some research is required. F, S, Su.

288 Major Writers of British Literature. (3) (Writing Intensive) (Prereq: Satisfactory completion of English 101 and 102). Selected readings in the works of major authors of Great Britain and Ireland. The works represent a variety of eras. Students write primarily analytical essays. Some research is required. F, S, Su.


307 The Age of Chaucer. (3) Masterpieces of fourteenth-century poetry and drama, including Pearl, Sir Gawain and the Green Knight, and works of the Wakefield Master. About one-third of the course is devoted to works of Chaucer not read in English 401.

308 Seventeenth-Century British Literature. (3) A study of the major English poets, dramatists, and prose writers of the Seventeenth Century.


315 The British Novel I. (3) A survey of the British novel from the beginning through the early Victorian era.

316 The British Novel II. (3) A survey of the British novel from the mid-Victorian era to the present.


318 The Victorian Age. (3) (Writing Intensive) A study of major mid- and late-Nineteenth-Century British writers, including Hardy, George Eliot, Dickens, Tennyson, the Brownings, and others.
Latin American Literature in Translation. (3) (= Spanish 322) (Writing Intensive) Selected readings of Latin American Literature in translation. Students write primary critical essays. All readings are in English. Even Years.

Modern British and Irish Literature. (3) A study of the works of British and Irish writers from the turn of the Twentieth Century to 1945.

Colonial and Revolutionary American Literature. (3) A study of early American literature with emphasis on the religious, philosophical, social, and political aspects.

American Literature 1800-1865. (3) A reading of representative works of Poe, Hawthorne, Melville, Emerson, Thoreau, Whitman, Dickinson, and other writers of the period.

American Literature 1860-1910. (3) A study of American literature from the Civil War to the early Twentieth Century. Emphasis on the changing attitudes reflected in the works of writers of this period.

Modern American Writers. (3) (Writing Intensive) A study of the works of American writers in the first half of the Twentieth Century.

Autobiographies, Journals, and Memoirs. (3) (Prereq: one sophomore-level literature course) (Writing Intensive) A study of selected Eighteenth-, Nineteenth-, and Twentieth-Century autobiographical writing in English. Students read selected Eighteenth- and Nineteenth-Century autobiographies, journals, and memoirs and explore the ways in which recent writers (in particular women and minorities) have challenged and revised the conventions of this genre. Students are required to produce some autobiographical writing.

The American Novel. (3) A study of selected American novels.

Contemporary American Literature. (3) (Writing Intensive) A study of the literary trends in America from 1945 to the present.

African-American Literature, 1750-present. (3) A survey of Nineteenth and Twentieth-Century literature. Emphasis on the classic works of Frederick Douglass, Charles Chesnutt, Zora Neale Hurston, Toni Morrison, and Ralph Ellison.

Studies in World Film. (3) (= Spanish 380, Theater 380) This course is a survey of world film with an emphasis on Hispanic cinema. It provides a general introduction to contemporary film-critical discourses which are currently under the rubric of film semiotics. Key elements of the language of cinema are studied with the goal of developing both critical and creative skills.

Modern British and American Drama. (3) (= Theater 381) A critical and historical survey of the development of British and American drama from the eighteenth century to the present. Possible authors include Sheridan, Wilde, Shaw, Pinter, Miller, Williams, Hansberry, and Mamet.
Contemporary Fiction. (3) A study of new fiction in English and other languages (in translation).

Contemporary Poetry. (3) A study of the poetry of a variety of contemporary American and British poets.

Business and Professional Communication. (3) (Writing Intensive) (Prereq: junior or senior standing) Designed to improve practical communication, both written and oral. Students learn business style and formats (the letter, memo, resume, and report), as well as strategies for presenting neutral, negative, and persuasive messages. Students will speak on business or professional topics.

Independent Study. (3) (Prereq: written contract between student and instructor, approved by adviser, Chair of the English Department, and Associate Dean of Humanities and Fine Arts. Approval must be gained by the end of the semester that precedes the semester in which the independent study is undertaken.) A maximum of 12 credit hours of 399 may be applied to a B.A. degree. Courses numbered 399 may not be used to fulfill requirements for core curriculum or English core (Major). May be repeated for credit under different topics.

Chaucer. (3) A study of Chaucer’s Canterbury Tales, with some attention to his other major works.

Studies in Shakespeare’s Tragedies. (3) (Writing Intensive) A study of Shakespeare’s tragedies.

Studies in Shakespeare’s Comedies and Histories. (3) (Writing Intensive) A study of Shakespeare’s comedies and histories.

Studies in British Literature. (3) Intensive study of topics selected by the professor teaching the course. May be repeated with the approval of the department chair. May be repeated for credit under different topics.

World Dramatic Literature. (3) (Theater 425) A critical and historical survey of the cardinal works of dramatic literature across the epochs of theatrical performance. The course accents analysis and interpretation.

Major American Poets. (3) (Writing Intensive) A study of the poetry of a variety of transitional and modern American poets, such as Walt Whitman, Emily Dickinson, Robert Frost, and T.S. Eliot.


Studies in Women Writers. (3) A study of selected works of Western and non-Western women writers.
444 **Women Writers of the South.** (3) A study of literature by Southern women writers from the pre-Civil war era through the present. Includes an examination of the historical and cultural conditions which affect the work of women writers.

451 **Introduction to the Study of Language and Modern Grammar.** (3) An introduction to the general principles concerning the design and function of human language, and an overview of the history of grammar with emphasis upon modern grammatical theory. Illustrative material is drawn from the English language, modern European languages, and others. F.

453 **Development of the English Language.** (3) A study of the origins and development of languages in general, and of English and related languages in particular. No previous knowledge of Old and Middle English necessary. S.

454 **Psycholinguistics.** (3) (= Psychology 402) (Prereq: junior or senior status) A survey of selected aspects of the field focusing on the cognitive and behavioral foundations of child and adult language acquisition. Other topics may include developmental and catastrophic language disorders, neurolinguistics, and the language-thought interaction.

459 **Advanced Composition and Rhetoric.** (3) (Writing Intensive) Writing that involves different aims, types, and audiences. Students learn theory about composition, rhetoric, and reading. Students also read examples, do library research, and review grammar, punctuation, and editing.

462 **Writing Workshop-Fiction.** (3) (Prereq: Permission of the instructor) A workshop course in the writing of prose fiction. Students have the opportunity to have their works read and criticized by a group of fellow writers.

468 **Writing Workshop-Poetry.** (3) A workshop course in the writing of poetry. Students learn the craft of poetry, have their poems discussed in a workshop setting, and are guided in the preparation and submission of manuscripts for publication.

470 **Early British Drama.** (3) A study of the development of the religious drama in Western Europe and in medieval England, and of the British drama of the Sixteenth Century.

480 **Special Topics in Technical Communications.** (3) (Prereq: Completion of English 210 and English 211, with a B or above and English 212 and Arts 201; Junior standing) An intensive workshop focusing on a specific topic in technical communication. Topics will vary and may include Computer Documentation (hardware and software, including user guides, reference manuals, quick reference guides, tutorials, and online documentation); Grant/Proposal Writing; Scientific/Medical Writing; Hypermedia authoring. May be repeated for academic credit. F.

483 **Theory of Literary Criticism.** (3) A study of various theories of literary criticism as applied to the major genres (fiction, poetry, and drama) with the aim of establishing standards of judgment.
(English, Environmental Science)

484 **Children’s Literature.** (3) An extensive study of works appropriate for the elementary and middle school child. Required of all students specializing in Early Childhood and Elementary Education.

485 **Adolescent Literature.** (3) An extensive study of works appropriate for the adolescent. Required of all Secondary English Education students.

488 **Studies in World Literature.** (3) Intensive study of topics selected by the professor teaching this course. May be repeated and used for English credit with approval of the department chair.

490 **Internship in Technical and Professional Writing.** (3) (Prereq: Completion of English 210 and English 211 with a B or above and Arts 201 and English 212; Junior standing) Supervised technical communication work in industry, science, government, or business. Enrollment requires a proposal and approval of English Department faculty. Portfolio and report required. F.

495 **Internship for English Majors** (3 ch.) Students will receive instruction and gain professional experience in an internship while working at least 10 hours per week with a local business or organization. Course contract must be approved prior to registration.

499 **Studies in American Literature.** (3) Intensive study of topics selected by the professor teaching the course. May be repeated with the approval of the department chair.

**ENVIRONMENTAL SCIENCE (ENVI)**

201 **Introduction to Environmental Science.** (3) (Prereq: Biology 121 or 122 or Chemistry 112 or Marine Science 112) The course brings together fundamental scientific disciplines (biology, chemistry, physics, geology and oceanography) in a cogent, multidisciplinary approach to investigate the interaction of human activity and the environment. The lab consists of two 7-week modules that focus on the environment of a specific geographic region. Each week a different component of that system is examined. Three lecture hours per week. S.

201L **Introduction to Environmental Science Laboratory.** (1) (Coreq: Environmental Science 201) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

331 **Introduction to Geographic Information Systems (GIS) and Remote Sensing.** (3) (=Marine Science 331) (Prereq: One Computer course and one Statistics course and Mathematics 160) (Coreq: Environmental Science 331L) An introduction to the fundamental concepts of Geographic Information Systems (GIS) and remote sensing. Using a database tied to particular geographic coordinates, a GIS is an automated system for storing, transforming, analyzing and displaying spatial data. This course discusses input methods, data storage, data accuracy, data models, types of query and analysis, and map output. Each student designs, conducts and presents a term research project. Three lecture hours per week. F, S.
Introduction to Geographic information Systems Laboratory. (1) (=Marine Science 331L) (Coreq: Environmental Science 331) This laboratory demonstrates the techniques and principles presented in Environmental Science 331. It introduces students to GIS computer software and the collection, entry, storage, query, analysis and presentation of spatial data. Three laboratory hours per week. F, S.

Independent Study/Internship. (1-4) (Prereq: A contract must be approved by the instructor and the department chair by the time of registration). Directed study of specific topics or supervised work as part of an approved off-campus internship. F, S, Su.

Advanced Environmental Science. (3) (=Marine Science 420) (Prereq: Biology 112 or 113, Mathematics 160, Chemistry 112 and Physics 201 or 211) (Coreq: Environmental Science 420L) Students actively investigate the earth system along with current environmental issues. Emphasis is placed on the integration of the many subsystems that comprise the earth system. Environmental issues are scientifically explored in an effort to develop sustainable solutions. The lab is project oriented, including both a local environmental study and a global remote sensing study. Three lecture hours per week. S.

Advanced Environmental Science Laboratory. (1) (=Marine Science 420L) (Coreq: Environmental Science 420) The laboratory demonstrates the topics and principles presented in the lecture. Three laboratory hours per week. S.

Selected Topics in Environmental Science. (1-6) (Prereq: Environmental Science 201 and permission of instructor) These topics are designed to allow the development of seminars and courses in special areas of environmental science. Offered on demand.

Directed Undergraduate Research. (3-6) (Prereq: A contract must be approved by the instructor and the department chair by the time of registration.) Structured undergraduate research projects conducted with faculty direction and participation, or within the context of an approved off-campus internship. Projects explore environmental problems using the scientific method. One conference and no less than five laboratory or field research hours per week. F, S, Su.

FRENCH (FREN)

Introductory French I. (3) Fundamentals of the language through aural comprehension, speaking, reading and writing. F, S.

Introductory French I-II (Intensive). (3) Fundamentals of the language through aural comprehension, speaking, reading, and writing. Equivalent to French 110-120. Intended for students with two years of high school French with an average grade of B or better.

Introductory French II. (3) (Prereq: French 110 or by placement) A continuation of French 110. Fundamentals of the language through aural comprehension, speaking, reading, and writing. F, S.
130  **Introductory French III.** (3) (Prereq: French 120, 111 or by placement) Further development of fundamental language skills (listening, speaking, reading, and writing), with additional consideration of culture.  F, S.

210  **Intermediate French I.** (3) (Prereq: French 130 or by placement) Intensive review of fundamental language skills in preparation for advanced-level coursework, with particular emphasis on reading.  S.

310  **French Grammar and Composition.** (3) (Writing Intensive) (Prereq: French 210 or equivalent) Intensive practice in French grammar and composition.

311  **French Conversation.** (3) (Prereq: French 210 or equivalent) Intensive practice in spoken French.

316  **French Phonetics.** (3) (Prereq: French 210 or equivalent) A course in pronunciation of French with attention to correction of difficulties encountered by English speakers.  Students will make regular use of the language laboratory.

350  **French Language Study Abroad.** (3-6) (Prereq: Approval by Foreign Language faculty) Language study abroad with instruction by native speakers.  Credit hours granted dependent on the number of hours taken.  Upon successful completion of an approved program students must furnish a certificate and/or examination results.  Prior consultation with the Chair of the Department of Foreign Languages is mandatory before enrollment.

390  **Introduction to French Literature I.** (3) (Prereq: French 210 or equivalent) A survey of French literature from the Middle Ages through the 18th century.

391  **Introduction to French Literature II.** (3) (Prereq: French 210 or equivalent) A survey of French literature of the 19th century and 20th century.

399  **Independent Study.** (3) (Prereq: A written contract between the student and instructor for a special topic dealing with French language or culture, and approved by the Dean of the Edwards College of Humanities and Fine Arts) May not be used to satisfy the French Minor Core.  May be repeated for credits under different topics.

400  **French Civilization.** (3) (Prereq: French 210 or equivalent) Practice in oral and written French through a study of the culture, history and development of France from its beginnings to the present day.

401  **La France Contemporaine.** (3) (Prereq: French 210 or equivalent) Reading and discussions on the culture of contemporary France.

415  **French Linguistics.** (3) (Prereq: French 210 or equivalent) Presentation and evaluation of various linguistic models and their application to the teaching of French.

448  **Teaching of French.** (3) (Prereq: Permission of the Department) Study of the latest methodologies, theories, and materials for teaching modern languages.
(Geography, Geology)

GEOGRAPHY (GEOG)

121  World Regional Geography. (3) An introduction to basic geographical concepts used by geographers in examining the fundamental contrasts between various countries of the world. Analysis of regions of the world, western and non-western, with respect to physical, cultural (both majority and minority), political and economic orientation.

121A  Tools of Geographic Instruction. (1) (Prereq or Coreq: Geography 121) Basic tools of geography such as globe characteristics, map essentials, atlas fundamentals and compass use. One two-hour laboratory meeting per week.

201  Introduction to Physical Geography. (4) The spatial significance of landforms, water bodies and soils. Emphasis is placed on both the man-land relationship and the concept of location. Three lectures and one two-hour laboratory per week. F.

202  Introduction to Weather and Climate. (4) The interrelationship of weather elements and controls and the spatial distributions of climate and vegetation. Three lectures and one two-hour laboratory a week. S.

205  The World of Maps and Mapping. (3) Understanding and appreciation of maps for the amateur as user, maker, or collector. Two lectures and one two-hour laboratory per week.

399  Independent Study. (1-6) (Prereq: Written contract between student and instructor) May be repeated for credit under different topics.

424  Geography of North America. (3) Physical and cultural geography of North America with emphasis on the United States.

425  Geography of Europe. (3) Physical and cultural geography of Europe.

426  Geography of Latin America. (3) Physical, cultural, and economic geography of Latin America.

GEOLOGY (GEOL)

102  Environmental Geology. (3) (=Marine Science 102) (Coreq: Geology 102L) The geologic processes and features that affect human usage and development of Earth's resources. Topics include natural hazards such as earthquakes, floods and volcanic eruptions, use of natural resources such as surface and ground waters, soils, and the coastal zone as well as contamination control. Three lecture hours per week. F, Su.

102L  Environmental Geology Laboratory. (1) (=Marine Science 102L) (Coreq: Geology 102) The environmental geology laboratory course focuses on active learning exercises demonstrating the dynamic interrelationships of Earth's inhabitants, natural resources and geohazards. Specific exercises, conducted in the classroom and in the field, concern the resources and geohazards associated with mineral and rocks, global plate motions, earthquakes and volcanoes, wetlands and coastal regions and land-use issues. Three laboratory hours per week. F, Su.
111 **Physical Geology.** (3) (Coreq: Geology 111L) This course illustrates the methods and enterprise of science as they have been applied to interpret the earth. The technical subject matter is concerned as much with natural processes as with their products—the minerals, rocks, fossils, structure and surface forms of the earth. The course emphasizes the interplay between hypothesis, experiment, and observable fact that characterizes productive physical science. Three lecture hours per week. Offered on demand.

111L **Physical Geology Laboratory.** (1) (Coreq: Geology 111) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. Offered on demand.

112 **The Origin and Evolution of the Marine Environment.** (3) (= Marine Science 112) (Prereq: Geology 111, Marine Science 111 and 111L) (Coreq: Geology 112L) Concepts concerning the origin and evolution of the earth and seas, with ecological processes related to their development. The origin and evolution of life including primitive forms in the marine environment. Three lecture hours per week. F, S.

112L **Marine Environment Laboratory.** (1) (= Marine Science 112L) (Coreq: Geology 112) Laboratory and field experiences to illustrate the process of evolution in the oceans and associated marine life. Three laboratory hours per week. F, S.

304 **Marine Geology.** (3) (= Marine Science 304) (Prereq: Geology 112 and 112L) (Coreq: Geology 304L) A comprehensive study of the origin and development of the major structural features of the ocean basin and the continental margins. Discussion of the techniques used in obtaining geologic data and the interpretation of sedimentary processes, volcanism and the stratigraphy of the ocean basins. Three lecture hours per week. F, S.

304L **Marine Geology Laboratory.** (1) (= Marine Science 304L) (Coreq: Marine Geology 304) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F, S.

316 **Sedimentary Geology.** (3) (= Marine Science 316) (Prereq: Permission of instructor) (Coreq: Geology 316L) Introduction to concepts and practices in the field of sedimentary geology including classical stratigraphic concepts, elementary sedimentary petrology and depositional environments. Each student is required to give an oral presentation. Three lecture hours per week. S.

316L **Sedimentary Geology Laboratory.** (1) (= Marine Science 316L) (Coreq: Marine Geology 316) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

318 **Physical Analysis of Sediments.** (3) (= Marine Science 318) (Prereq: Permission of instructor) (Coreq: Geology 318L) Detailed treatment of modern approaches to sedimentary analysis including textural and structural studies, mineral separation, beneficiation, and suspended sediment treatment of unconsolidated laboratory materials. Each student is required to give an oral presentation. Three lecture hours per week. F.
(Geology)

318L  **Physical Analysis of Sediments Laboratory.** (1) (= Marine Science 318L)(Coreq: Marine Geology 318) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

399  **Independent Study.** (1-6) (Prereq: Permission of instructor and approved contract.) Directed study and/or research on specific topics. F,S, Su.

416  **Hydrogeology.** (3) (=Marine Science 416) (Prereq: Marine Science 304 or permission of the instructor) This course will cover the elements of the hydrologic cycle, emphasizing ground and surface water movement through the hydrologic system. Topics will include hydrogeology, streams and floods, estuarine and wetland hydrology, properties of water, and the hydrologic continuum between rivers and the sea. Lecture will focus on theoretical aspects of water movement and the hydrologic system. Three lecture hours per week.

416L  **Hydrogeology Laboratory.** (1) (=Marine Science 416L) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week.
GERMAN (GERM)

110  **Introductory German I.** (3) Fundamentals of the language through aural comprehension, speaking, reading, and writing. F, S.

111  **Introductory German I -II(Intensive).** (3) Fundamentals of the language through aural comprehension, speaking, reading, and writing. Equivalent to German 110-120. Intended for students with two years of high school German with an average of B or better, or by placement.

120  **Introductory German II.** (3) (Prereq: German 110 or by placement) A continuation of German 110. Fundamentals of the language through aural comprehension, speaking, reading, and writing. F, S.

130  **Introductory German III.** (3) (Prereq: German 120, 111, or by placement) Further development of fundamental language skills (listening, speaking, reading, and writing), with additional consideration of culture. F.

210  **Intermediate German I.** (3) (Prereq: German 130 or by placement) Intensive review of fundamental language skills in preparation for advanced-level course work, with particular emphasis on reading. S.

310  **German Grammar and Composition.** (3) (Writing Intensive) (Prereq: German 210 or equivalent; permission of the Department) Intensive practice in German grammar and composition.

311  **German Conversation.** (3) (Prereq: German 210 and permission of the Department) Intensive practice in spoken German.

350  **German Language Study Abroad.** (3-6) (Prereq: Approval by Foreign Language faculty) Language study abroad with instruction by native speakers. Credit hours granted dependent on the number of hours taken. Upon successful completion of an approved program students must furnish a certificate and/or examination results. Prior consultation with the Chair of the Department of Foreign Languages is mandatory before enrollment.

390  **Introduction to German Literature I.** (3) (Prereq: German 210 or equivalent; permission of the Department) Reading and discussion of representative works of German prose, drama, and lyric poetry from Germanic times through the late eighteenth century.

391  **Introduction to German Literature II.** (3) (Prereq: German 210 or equivalent; permission of the Department) Reading and discussion of representative works of German prose, drama, and lyric poetry from the nineteenth and twentieth centuries.

398  **Selected Topics in Translation.** (3) (Prereq: Permission of the Department) Selected topics in German literature and culture. Readings in English; topics announced in advance. May be repeated for credit under different topics.
Independent Study. (3) (Prereq: A written contract between the student and the instructor for a special topic dealing with German language or culture, and approved by the Dean of the Edwards College of Humanities and Fine Arts.) May not be used to satisfy the German Minor Core. May be repeated for credit under different topics.

German Civilization. (3) (Prereq: German 210 or equivalent; permission of the Department) A broad survey of German civilization and cultural history from the Germanic origins through the Third Reich/World War II.

Contemporary Germany. (3) (Prereq: German 210 or equivalent; permission of the Department) An in-depth examination of the civilization and cultural life of post-war Germany with additional consideration of Austria and Switzerland.

Topics in German. (3) (Prereq: German 210 or equivalent; permission of the Department) Reading and discussion on selected topics in German language, literature, and culture. May be repeated for credit under different topics.

German Linguistics and Phonology. (3) (Prereq: German 210 or equivalent; permission of the Department) An overview of the history of the German language and introduction to German phonology, with an emphasis on teaching applications.

Teaching of German. (3) (Prereq: Permission of the Department) Study of the latest methodologies, theories, and materials for teaching modern languages.

GREEK (GREK)

Elementary Ancient Greek I-II. (3 each) (Prereq: English 101) An introduction to the fundamentals of ancient Greek grammar in preparation for reading ancient Attic and Koine Greek. Not available for the core foreign language requirement.

HEALTH EDUCATION (HLED)

Personal and Community Health. (3) An investigation of issues related to improving personal health and community health. Emphasis will be on physical fitness, mental health, nutrition, stress management, sexuality, relationships, diseases, and complementary medicine for self-care.

Philosophy and Principles of Health Promotion and Education. (3) (Prereq: Health Education 121) An exploration of underlying philosophies of health education and promotion. An overview of social, cultural, and physical environmental factors which influence perceptions and valuation of health, and condition responses to health related knowledge.
235 Advanced Emergency Care and First Aid. (3) This course is designed to prepare the student to respond appropriately when faced with an emergency situation. Emergency Response certification may be earned with a score of 80% or better. Physical activity to perform various skills in CPR and First Aid is required.

310 Issues in Family Life and Sexuality. (3) An overview of problems and questions relative to family life and sex education. Topics include: communication, relationships, intimacy, marriage, parenting, male/female sexual anatomy, sexually transmitted diseases, contraceptives and childbirth.

331 Health Education for the Primary and Elementary School. (3) (Prereq: Health Education 121) An exploration of the major health problems that affect school age children and have implications for learning. Special emphasis will be placed upon how the teacher may influence the health knowledge, attitudes and beliefs of children in preschool through grade eight.

333 Environmental Health. (3) (Prereq: Health Education 121) Study to provide students with an understanding and appreciation of the complex interaction of humans and the environment, the multi-disciplinary areas of the environmental health sciences and the impact degradation of the environment may have on the health of living organisms. Environmental pollution, its sources, modes of transport and transformation, and methods of prevention are addressed.

340 Drug Education. (3) The nature of drug actions, motivational factors that influence the use of drugs, and evaluation of procedures to provide effective drug education.

347 Consumer Health Education. (3) Responsibility of individuals and families for the proper evaluation of health and medical information as it relates to the adequate and proper utilization of health practices and services.

349 Peer Educator Training. (3) A course designed to educate students to be peer educators so they may educate others about sexual assault, date rape, intimate partner violent sexual harassment and to emphasize prevention and risk reduction.

350 Professional and Program Development in Health Promotion and Education. (3) (Prereq: Health Education 121 and 201) (Writing Intensive) Overview of the skills necessary for excellence and quality in the implementation of health promotion programs. Topics include coalition building, presentation skills, program planning, health communication, legislative involvement, and promoting multicultural diversity.

382 Diseases and Disorders. (3) (Prereq: Health Education 121) The epidemiology of chronic and communicable diseases to include a study of their causes and progressions, departures from normal body functioning, relationships of disease to functional ability, and preventative and curative aspects.

399 Independent Study. (1-3)
(Health Education)

404 Nutrition.  (3) A study of the metabolic mechanisms and requirements of food groups and nutrients as related to health, various age groups, and physical activity. Special attention is given to risk reduction of chronic disease through proper nutritional health and individual eating practices along with the evaluation of these habits against the guidelines that support good health.

410 Epidemiology and Quantitative Research Methods.  (3) (Prereq: Health Education 350, 382; Statistics 201 or the equivalent) An overview of epidemiological models and quantitative research methods used by public health agencies and health care providers to analyze patterns of acute and chronic diseases.

434 Health Problems in the School.  (3) Methods and materials for teaching health K-12 with special emphasis on current problem areas. Integration and correlation of material developed on the primary, intermediate and secondary levels.

480 Women's Health Issues.  (3) An overview of current health concerns related to women throughout their life-span. Current diagnostic, technological and other medical/scientific advances will be discussed. Open to men and women.

481 Behavioral Foundations and Decision Making in Health Education.  (3)(Writing Intensive) (Prereq: Health Education 121 and senior standing) A study of the interaction between health education and the applied behavioral sciences to effect positive health behavior change in persons, institutions, and communities. Included is the study and identification of theoretical foundations to plan effective promotion and health education programs.

485 Internship in Health Careers.  (9) (Prereq: Admission to the Health Promotion program. Senior standing, and Health Education 350) Supervised work experience through health-related agencies for a minimum of 290 hours. The internship requires 90 or more hours of collegiate credit with a GPA of 2.25 or greater; formal application with a resume by stipulated deadline; and a contract with the internship agency, the student, and the department. A journal detailing work activities and portfolio will also be required.

491 Needs Assessment and Evaluation of Health Programs.  (3)(Prereq: Health Education 350; Statistics 201 or the equivalent; senior standing) Needs assessment and evaluation models will be reviewed with practical applications in the classroom, laboratory, and field settings. Major emphasis on qualitative design and analysis, but an application of quantitative design and instruments will be provided.

495 Senior Seminar - CHES Review.  (1) (Prereq: Senior Standing and Health Education 350. Coreq: Health Education 485). A review of the skills and processes of health education which will assist in the preparation to certify as a Certified Health Education Specialist (CHES). (Pass/Fail only).

499 Directed Undergraduate Research.  (1-6) (Prereq: Permission of instructor and approved contract) Directed undergraduate research on a topic to be developed by the student and instructor.
HISTORY (HIST)

101  The Foundations of European Civilization to 1648. (3) An introduction to the foundations of European Civilization, beginning with the early civilizations of Egypt and Mesopotamia, followed by a survey of the history of ancient Greece and Rome, the rise of Christianity, the transmission of this heritage to Europe, the Middle Ages, the Renaissance, and the Reformation.

102  Introduction to European Civilization from 1648 to the Present. (3) A survey of the rise of European civilization from the end of the Thirty Years’ War to the present.

201, 202  History of the United States from Discovery to the Present. (3 each) A general survey of the United States from the era of discovery to the present, emphasizing major political, economic, social, and intellectual developments. 201: Discovery through Reconstruction. 202: Reconstruction to the present.

The Following Courses Require Sophomore Standing or Above or Permission of the Instructor.

300  The Philosophy and Methodology of History. (3) (Writing Intensive) A seminar which examines, with the help of examples from historical writers of all ages, the value underlying historical study and the methods used by historians. F.

302  The Middle Ages (500-1250). (3) A study of the causes and course of the split of the Roman world into Western European, Eastern Orthodox and Islamic culture, followed by a discussion of the civilization of the High Middle Ages and the problems of cultural change in the late medieval period.

303  Renaissance and Reformation (1250-1648). (3) A consideration of the decline of the medieval world and the dawn of modern civilization as exemplified by the emergence of the modern state, the Renaissance, the Reformation, the New Science, the Age of Exploration and the secularization of society.

304  The Enlightenment: Europe (1648-1789). (3) A survey of the main currents of European thought, cultural development, and politics between the Thirty Years’ War and the French Revolution.

307  European History (1848-1914). (3) A study of the main currents of European thought, from the Revolutions of 1848 to the rise of industrial power, imperialism, diplomatic realignment, nationalism, and the road to World War I.

308  World War I and the Twenty Years’ Truce. (3) An inquiry into the causes and conduct of the First World War; the peace settlement of 1919-1923; the rise of totalitarianism and the struggle of the European democracies; the road to the Second World War.
(History)

313 **The History of Russia to 1855.** (3) An introduction to the civilization of the Russian and Slavic peoples. The historical traditions and culture of the people who occupied the Russian plains from the eighth century A.D. to the mid 19th century.

314 **The History of Modern Russia and the Soviet Union Since 1855.** (3) The decline of Imperial Russia, the Revolution of 1917, and the development of the Soviet Union.

316 **Roman Republic and Empire.** (3) (= Classical Studies 316) An examination of the political history of the Roman state, from its foundation by the legendary Romulus to its destruction by barbarian invaders. Special emphasis upon the failure of Republican government and the disappearance of personal freedom as one family of unparalleled ability and wealth fights for victory in a bloody civil war. Imperialism, militarism, bureaucratization and the advent of Christianity highlighted. Colorful personalities, such as those of Marc Antony and Cleopatra, examined in some detail.

317 **Comparative Revolutions.** (3) (Writing Intensive) (= Politics 317) (Prereq: sophomore standing) Case studies of the classic revolutions (English, American, French, and Russian) and analyses of these and other revolutions as political phenomena. Attention will be given to the political philosophy of revolution.

320 **Introduction to Latin America Civilization.** (3) (= Politics 320) A broadly based study of life in Central and South America that will include a preliminary study of the historical and geographical dimensions of the area, lifestyles and folkways, politics and political movements, and economic conditions.

321 **State and Society in Modern Latin America.** (3) (= Politics 321) A survey of the social, economic, cultural, and political development of Latin American states from the achievement of independence (the early national period) to the present time, employing case studies to illustrate the connection between the Latin American experience and that of the world of developing nations at large.

326 **History of Germany Since 1870.** (3) A critical study of the creation of the German Empire, Bismarck, Wilhelmian Germany, the First World War, the Weimar Republic, the Third Reich, the Second World War, and the fate of German speaking peoples since then.

327 **Eastern Europe and the Soviet Union: 1918 to the Present.** (3) History of the new East European states and the Soviet Union from the end of World War I to the present. Emphasis on their domestic and foreign problems during the interwar period, the Russian expansion and domination of Eastern Europe since 1945, the establishment of the "People's Democratic Republics" in Poland, East Germany, Czechoslovakia, Hungary, Bulgaria, Yugoslavia, and Albania, and the revolutionary upheavals in the 1980's leading to the fall and collapse of the Communist system and ideology in Eastern Europe and the Soviet Union.

333 **Modern France: 1715 to the Present.** (3) A political and social history of the French nation from the end of Louis XIV's reign, and the Revolutions of 1789 and 1792, to modern-day France.
The History of Britain: 1714 to the Present. (3) The social, intellectual, economic, and political history of the British Isles from the beginning of the Hanoverian dynasty, through the Age of Victoria, the decline of the Empire, the catastrophe of two world wars, to the present time.

Intellectual History of Early Modern Europe. (3) "Great books" from the High Middle Ages to the Romantic era, set within the broader social, economic, and political context. Topics include scholasticism, humanism, Renaissance Platonism, Reformation and Counter-Reformation theology, skepticism, the new science, British empiricism, the Enlightenment, and the Romantic reaction.

History of Japan. (3) A survey of the origins and the Tokugawa period followed by a more thorough treatment of Japan’s rise to world power, World War II, and socioeconomic and political developments since then.

History of China. (3) The historical foundations of the social, political and cultural evolution of China followed by a more detailed treatment of the 19th and 20th centuries.

Comparative New World Empires. (3) A topical study of the colonial empires of the Spanish, Portuguese, French, Dutch, and English in the New World from 1492 to the mid-1700's. Emphasis is placed on the cultural interactions between Europeans and natives, the growth of creole societies, and the development of political and economic institutions, including slavery.

Colonial America. (3) An examination of the history of the American colonies from their beginnings through their evolution into mature provincial societies. Emphasis is placed on the interactions among colonists, native Americans, and African slaves, as well as the development of distinctive regions.

The Frontier in U.S. History. (3) A thorough examination of America’s westward expansion and the impact of a frontier on the social, political, and economic development of the United States. Included will be a study of frontier life, myths, and legends.

Native American History. (3) A detailed examination of North American Indian cultures and history from early colonization to the present including Indian wars, federal Indian policy, and the contemporary ethnocentric movement.

Revolutionary America. (3) Study of the American Revolution era: the social and political causes of the rebellion, the war, the turbulent decade of the 1780's and the ratification of the Constitution. Emphasis is placed on the political debates of the period and the lives of ordinary Americans during these times.

Civil War and Reconstruction. (3) Analysis of major problems of American history from the sectional conflict over slavery and secession through the war years and the reconstruction of the nation.

U.S. History 1876-1917. (3) From the end of the Reconstruction to the First World War; Industrialization, Imperialism, and Reform.
U.S. History 1917-1945. (3) Political, economic, social and cultural development during World War I, the “Roaring Twenties,” the Depression, and the Second World War. F.

U.S. History 1945 to the Present. (3) A study of the political, economic, social, and cultural development of the United States since the end of World War II, the “Cold War,” and the global confrontation between the United States and the communist world.

The Foreign Policy of the United States. (3 each semester) (377=Politics 341) First semester: From the establishment of the foundations in the Colonial Period and Revolution to the background of World War I. Second semester: From World War I to the present.

History of the Colony and State of South Carolina. (3) A study of South Carolina’s origins and development and a survey of recent South Carolina history with emphasis on social and institutional development.

History of Horry and Georgetown Counties. (3) Insights into regional and local developments since the settlement of this area.

History of American Women. (3) The social, political and economic roles and changing status of women in America.

Black Americans. (3) A survey of the historical development of black people in the Western Hemisphere.

Hollywood’s America (3) An examination of selected topics in American political, social and cultural history through the medium of Hollywood-produced films. Topics may include the filmed presentation of World War II, gender and race issues, Cold War American culture, and “American Memory” through film.

The New South. (3)(Writing Intensive) (Prereq: sophomore standing) The Bourbon era, agrarian revolt, industrial revolution, racial problems, and the changes resulting from the impact of the Depression, New Deal, and two world wars.

Independent Study. (1-6) (Prereq: Written contract between student and instructor, approved by the Associate Dean, College of Humanities and Fine Arts). May be repeated for credit under different topics.

Topics in History. (3 each semester) Reading and research on selected historical subjects. May be repeated for credit under different topics.

Internship in History. (3) (Prereq: Permission of Chair required) Open to senior history majors with a minimum 3.00 GPA and subject to availability. The supervised internship requires 120 hours of on-site employment, a journal, and a term paper. The purpose of the internship is to provide students with practical training and experience in history-related work and introduce them to local and regional employers in fields of applied history.
**Topics in Latin American Politics and Culture.** (3) (=Politics 496) A topical approach to Latin America employing a variety of teaching materials and techniques. Among the topics treated are women and race, recent and contemporary themes in Latin American civilization, political institutions and ideology.

**Senior Thesis.** (3) A course designed to introduce the student to the principles of historical research and writing. History majors may apply during their junior year through the department chair. Only selected seniors will be admitted. Primary criteria are an outstanding academic record and a genuine interest in graduate school.

### HONORS (HONR)

An enhanced academic curriculum includes honors sections of core curriculum courses, enriched courses within majors, and advanced interdisciplinary courses for juniors and seniors.

Honors courses are restricted to students in good standing in the honors program. Registration requires the permission of the director of the honors program. See the director for additional course offerings each semester.

**101 Honors Seminar.** (3) A cross-disciplinary course designed to introduce students to the foundations of human thought and expression through a variety "great books" and "great works". Students will be exposed to some of the central artistic, literary, philosophical, and historical statements of our civilization to advance their own critical, writing, and thinking.

In their third year, honors program students take courses in their major arranged with the instructor and honors program director for honors credit.

**325 Service Learning.** (3) Students will participate in public service with local agencies in order to understand the relationship between civic responsibility and higher education. In the classroom, students will reflect upon the function and necessity of their service as well as on its limitations in responding to specific community needs and general social problems.

**399 Independent Study.** (1-6) This course will be offered as an elective to satisfy a Junior Level Honors Program requirement.

**498 Honors Capstone Seminar.** (3) Reading and writing on a selected theme. Class presentations will be provided by faculty from a variety of disciplines.

**499 Honors Senior Thesis/Project.** (3) (=Prereq: Honors 498) Each student will plan, execute, and write about an original research project under the supervision of a faculty member in the student's major area of study.
(Japanese, Journalism)

JAPANESE

110 Introductory Japanese I. (3) For students with no or very limited background in Japanese. Emphasis on the mastery of the basic structure of Japanese through intensive conversational exercise and practice development of reading and writing skills. Introduction to Japanese culture.

120 Introductory Japanese II. (3) (Prereq: Japanese 110 or by placement) Continued emphasis on the mastery of the basic structure of Japanese through intensive conversational exercise and practice. Further development of reading and writing skills. Introduction to Japanese culture.

130 Introductory Japanese III. (3) (Prereq: Japanese 120 or by placement) Continued emphasis on the mastery of the basic structure of Japanese through intensive conversational exercise and practice. Further development of reading and writing skills. Introduction to Japanese culture.

JOURNALISM

201 Foundations of Journalism and Mass Communication. (3) (Pre-req: English 101, 102) Survey of the history and principles of print journalism and the broadcast communications industry, concentrating on their development, philosophical foundations, processes, economics, influences on society, and directions for the future.

304 Journalism Writing and Reporting Skills I. (3) (Writing Intensive) (Prereq: English 101, 102; Journalism 201) Workshop on the basics of preparing and producing news stories for a variety of media. Emphasis is on news judgment, writing copy, story development, reporting, interviewing, copy editing, and career options in the industry.

305 Journalism Writing and Reporting Skills II. (3) (Writing Intensive) (Prereq: English 101, 102; Journalism 201, 304) Workshop on copy editing, investigative news reporting, feature writing, editorial writing, sports writing, and free-lance for magazines.

306 Journalism Law and Ethics. (3) (Prereq: Journalism 201) The legal history and philosophy of the media in light of the First Amendment, including discussion of libel and slander laws, shield laws, the Freedom of Information Act, privacy laws, and other issues affecting the rights and responsibilities of the media.

307 Copy Editing. (3) (Prereq: Journalism 201, 304) A rigorous workshop designed to develop editing skills. Students learn to catch fact, style, and grammar errors in copy; tighten and rewrite stories, create headlines, and manage deadlines.
Public Opinion and Propaganda. (3) (Prereq: Journalism 201) This course offers historical analyses of propaganda as persuasive communication and explores how public opinion and propaganda impact each other and society. S, odd years.

Introduction to Public Relations. (3) (Prereq: Journalism 201) A survey course in the concepts, strategies, and tactics of public relations as a career field and as it relates to journalism, advertising, and marketing. S, odd years.

Writing for Broadcast. (3) (Prereq: English 101, 102; Journalism 201) This course offers students an introduction to broadcast media as well as reporting. Students learn components of script writing, videotape editing and the impact of broadcast. S.

Women and Media (3) (= Women's Studies 365) This is a survey course about the history of women's roles in the media, their contributions, employment, and media effects on women.

Journalism Special Topics Seminar. (3) (Prereq: English 101, 102; Journalism 201 or permission of instructor) Exact topics will vary, but each will be an interdisciplinary seminar emphasizing the relationships between journalism, mass media, and various aspects of society. The course may be repeated for Journalism elective credit.

Journalism Internship. (3)(Prereq: Journalism 201, 304, and 305) Students will receive professional experience and instruction in a substantial internship while working 10 hours per week with a local media organization. Contracts outlining content, supervision and grading criteria must be approved in advance by the Dean of the Edwards College of Humanities and Fine Arts.

LATIN (LATN)


Introductory Latin II. (3) (Prereq: Latin 110 or by placement) A continuation of Latin 101 with the introduction of additional vocabulary and grammatical constructions.

Introductory Latin III. (3) (Prereq: Latin 120 or by placement) Mastery of complex constructions and English translation. Emphasis on composition and oral/silent reading skills.

LATIN AMERICAN STUDIES (LATS)

Independent Study in Latin America. (3) An independent study course conducted under faculty supervision in Latin America. The course may be conducted through any university department. It is normally taken by students enrolled in SPAN 350, Study Abroad.
(Marine Science)

MARINE SCIENCE (MSCI)

101  **The Sea.** (3) (Coreq: Marine Science 101L) A non-technical introduction to oceanography for non-majors. Stresses basics of marine science and their relationship to people. Students may not receive credit for both Marine Science 101 and Marine Science 111. Three lecture hours per week. S, Su.

101L  **Laboratory for The Sea.** (1) (Coreq: Marine Science 101) Laboratory exercises to accompany Marine Science 101. Three laboratory hours per week. S, Su.

102  **Environmental Geology.** (3) (= Geology 102) (Coreq: Marine Science 102L) The geologic processes and features that affect human usage and development of the earth's resources. Topics include natural hazards such as earthquakes, floods and volcanic eruptions, use of natural resources such as surface and ground water, soils and the coastal zone and contamination control. Three lecture hours and three laboratory hours per week. F, Su.

102L  **Environmental Geology Laboratory.** (1) (= Geology 102L) (Coreq: Marine Science 102) The environmental geology laboratory course focuses on active learning exercises demonstrating the dynamic interrelationships of Earth's inhabitants, natural resources and geohazards. Specific exercises, conducted in the classroom and in the field, concern the resources and geohazards associated with mineral and rocks, global plate motions, earthquakes and volcanoes, wetlands and coastal regions and land-use issues. F, Su.

103  **Navigation and Seamanship.** (3) An introduction to the theory of electronic, celestial and dead reckoning navigation with each applied to practical problems in the laboratory and at sea. Boat safety, boat handling at sea and in harbor, rules of the road, minor repairs, first aid and use of a boat as a marine sampling platform are presented and applied. One lecture and three laboratory hours per week. F, S.

111  **Introduction to Marine Science.** (3) (Prereq or Coreq: Completion of, or concurrent enrollment in, Mathematics 131 or higher; Coreq: Marine Science 111L) An introduction to the general theory and principles of marine science covering the physical, biological, geological, and chemical characteristics of seawater and sediments. Three lecture hours per week. F, S.

111L  **The Present-Day Marine Environment Laboratory.** (1) (Coreq: Marine Science 111) Laboratory and field experiences to demonstrate the functioning of the marine environment. Three laboratory hours per week. F, S.

112  **The Origin and Evolution of the Marine Environment.** (3) (= Geology 112) (Prereq: Geology 111 and 111L or Marine Science 111 and 111L) (Coreq: Marine Science 112L) Concepts concerning the origin and evolution of the earth and seas, with geological processes related to their development. The origin and evolution of life including primitive forms in the marine environment. Three lecture hours per week. F, S.
112L Marine Environment Laboratory. (1) (=Geology 112L) (Coreq: Marine Science 112) Laboratory and field experiences to illustrate the process of evolution in the oceans and associated marine life. Three laboratory hours per week. F, S.

201 Introduction to Environmental Science. (3) (=Environmental Science 201) (Prereq: Biology 122 or Chemistry 112 or Marine Science 112) (Coreq: Marine Science 201L) The course brings together fundamental scientific disciplines (biology, chemistry, physics, geology and oceanography) in a cogent, multidisciplinary approach to investigate the interaction of human activity and the environment. The lab consists of two 7-week modules that focus on the environment of a specific geographic region. Each week a different component of that system is examined. Three lecture hours per week. S.

201L Introduction to Environmental Science Laboratory. (1) (=Environmental Science 201L) (Coreq: Marine Science 201) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

301 Physical Oceanography. (3) (Prereq: Students must earn a grade of C or better in Marine Science 112, Mathematics 161 and Physics 212) (Coreq: Marine Science 301L) A comprehensive study of the field of physical oceanography. Topics include physical properties of the ocean, ocean dynamics, air-sea interactions, waves, tides, and the ocean's role in climate. In the lab, students analyze real-time global ocean data, and quantitative analysis skills are developed. Three lecture hours per week. F, S.

301L Physical Oceanography Laboratory. (1) (Coreq: Marine Science 301) The laboratory will demonstrate the topics and principles presented in lecture. Three laboratory hours per week. F, S.

302 Marine Biology. (3) (Writing Intensive) (= Biology 302) (Prereq: Marine Science 112 and Biology 122) (Coreq: Marine Science 302L) Study of the adaptive and evolutionary mechanisms by which organisms are able to occupy the various marine habitats. The evolutionary development of the diversity of marine organisms. Three lecture hours per week. F, S.

302L Marine Biology Laboratory. (1) (Writing Intensive) (=Biology 302L) (Coreq: Marine Science 302) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F, S.

303 Aquaculture. (3) (Prereq: Marine Science 112, Biology 122) A general introduction to the principles of culturing organisms, including types of culture, water quality, feeding, breeding, and diseases of common species. Three lecture hours per week. Each student will be required to give an oral presentation. F.

304 Marine Geology. (3) (=Geology 304) (Prereq: Marine Science 112) (Coreq: Marine Science 304L) A comprehensive study of the origin and development of the major structural features of ocean basins and the continental margins. Discussion of the techniques used in obtaining geological data and the interpretation of processes, vulcanism and the stratigraphy of ocean basins. Three lecture hours per week. F, S.
304L  Marine Geology Laboratory. (1) (=Geology 304L) (Coreq: Marine Science 304) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F, S.

305  Marine Chemistry. (3) (Writing Intensive) (Prereq: A grade of C or better in Marine Science 111, 112, Mathematics 161 and Chemistry 112/112L) (Coreq: Marine Science 305L) An introduction to the chemistry of seawater, marine organisms and sediments. The impact of humans on the biogeochemistry of the ocean is emphasized. Laboratories involve the collection and chemical analysis of seawater. Techniques for solving word problems are developed during recitation. Three lecture hours per week. F, S.

305L  Marine Chemistry Laboratory. (1) (Writing Intensive) (Coreq: Marine Science 305) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F, S.

311  Hydrographic Techniques. (3) (Prereq: Marine Science 111) (Coreq: Marine Science 311L) Basic electrical and mechanical skills needed to operate standard shipboard oceanographic equipment. Maintenance and troubleshooting techniques will also be covered. Each student will be required to give an oral presentation. Two lecture hours per week. F.

311L  Hydrographic Techniques Laboratory. (1) (Coreq: Marine Science 311) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

316  Sedimentary Geology. (3) (=Geology 316) (Prereq: Permission of instructor) (Coreq: Marine Science 316L) Introduction to concepts and practices in the field of sedimentary geology including classical stratigraphic concepts, elementary sedimentary petrology and depositional environments. Each student will be required to give an oral presentation. Three lecture hours per week. S.

316L  Sedimentary Geology Laboratory. (1) (=Geology 316L) (Coreq: Marine Science 316) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

318  Physical Analysis of Sediments. (3) (=Geology 318) (Prereq: Permission of instructor) (Coreq: Marine Science 318L) Detailed treatment of modern approaches to sedimentary analysis including textural and structural studies, mineral separation, beneficiation, and suspended sediment treatment of unconsolidated laboratory materials. Each student is required to give an oral presentation. Three lecture hours per week. F.

318L  Physical Analysis of Sediments Laboratory. (1) (=Geology 318L) (Coreq: Marine Science 318) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

321  Atmospheric Science. (3) (Prereq: A grade of C or better in Physics 211) (Coreq: Marine Science 321L) An introduction to the fundamentals of atmospheric physics, meteorology, and climatology. All scales of atmospheric phenomena are examined from the global circulation to hurricanes. Emphasis is placed on current
concerns such as ozone depletion, acid rain, and global warming. Three lecture hours per week. S.

321L Atmospheric Science Laboratory. (1) (Coreq: Marine Science 321) The laboratory demonstrates the topics and principles presented in lecture, and students analyze real-time global data available on the Internet. Three laboratory hours per week. S.

331 Introduction to Geographic Information Systems (GIS) and Remote Sensing. (3) (=Environmental Science 331) (Prereq: one Computer Science course and one Statistics course and Mathematics 160) (Coreq: Marine Science 331L) An introduction to the fundamental concepts of Geographic Information Systems (GIS) and remote sensing. Using a database tied to particular geographic coordinates, a GIS is an automated system for storing, transforming, analyzing and displaying spatial data. This course discusses input methods, data storage, data accuracy, data models, types of query and analysis, and map output. Each student designs, conducts and presents a term research project. Three lecture hours per week. F, S.

331L Introduction to Geographic Information Systems Laboratory. (1) (=Environmental Science 331L) (Coreq: Marine Science 331) The laboratory demonstrates the topics and principles presented in lecture. It introduces students to GIS computer software and the collection, entry, storage, query, analysis and presentation of spatial data. Three laboratory hours per week. F, S.

355 Introduction to Environmental Ecotoxicology. (3) (Prereq: Chemistry 111/111L, 112/112L, Biology 121, Mathematics 160) (Coreq: Marine Science 355L) Introduction to the impacts of pollutants upon ecological systems from a molecular to global perspective, the fate and transformation of chemical contaminants in the biosphere. Emphasis is placed on the integration and assimilation of chemical, biological and mathematical principles as they relate to the field of ecotoxicology.

355L Introduction to Environmental Ecotoxicology Laboratory. (1) (Coreq: Marine Science 355) The lab focuses on quantitative inquiry-based exercises as well as an introduction to the techniques and analytical instrumentation used to detect and quantify contaminants in the environmental matrices.

375 Biology of Marine Mammals. (3) (=Biology 375) (Prereq: Marine Science 302 or Biology 370) (Coreq: Marine Science 375L) A comprehensive survey of the biology and ecology of marine mammals, emphasizing the cetaceans, pinnipeds, sirenians, and sea otters. Major topics include evolution and classification, anatomy and physiology, feeding and trophic interactions, life history, social organization and behavior, communication and cognition, and interactions with humans. Each student will be required to give an oral presentation. Three lecture hours per week. F.

375L Biology of Marine Mammals Laboratory. (1) (=Marine Biology 375L) (Coreq: Marine Science 375) The laboratory demonstrates the topics and principles presented in lecture. Each student will be required to give an oral presentation. Three laboratory hours per week. F.
Biology of Sea Turtles. (3) (Prereq: Marine Science 302, Biology 122 or permission of the instructor) A comprehensive investigation of the evolution, biology, and ecology of sea turtles (order Chelonia) will be covered in this course. Topics to be focused on include: phylogeny, molecular evolution, anatomy, reproduction, ontogenetic changes, sensory capabilities, navigation, feeding behaviors, diving physiology, thermal biology, ecological roles, and matters of conservation. Eight lecture hours per week during the Summer.

Biology of Sea Turtles Laboratory. (1)(Coreq: Marine Science 376) The laboratory demonstrates the topics and principles presented in lecture, involves field research, and conservation and regulatory interest site visitation. Eight to ten hours per week.

Independent Study/Internship. (1-4) (Prereq: A contract must be approved by the instructor and the department chair by the time of registration). Directed study of specific topics or supervised work as part of an approved off-campus internship. F, S, Su.

Environmental Chemistry. (3) (Prereq: Biology 121 and Chemistry 112 and 112L) (Coreq: Marine Science 401L) An introduction to the chemistry of natural and industrial processes. Current governmental approaches to regulation, treatment and storage of human wastes are also covered. Each student is required to give an oral presentation. Three lecture hours per week. F.

Environmental Chemistry Laboratory. (1) (Coreq: Marine Science 401) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

Analytical and Field Methods in Environmental Chemistry. (3) (Prereq: Marine Science 305 or Chemistry 321 or by permission of instructor) (Coreq: Marine Science 402L) Laboratory analysis and field sampling skills needed to conduct measurements of chemical and physical characteristics of water, soils, organisms, and the atmosphere. EPA methods including statistical techniques for quality control and assurance are taught, as well as techniques for computerized data recording, calculation, graphical presentation, and library researching. Students are given a background in instrumental theory for all equipment used. Each student is required to give an oral presentation. Three lecture hours per week. F.

Analytical and Field Methods in Environmental Chemistry Laboratory. (1) (Coreq: Marine Science 402) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

Environmental Internships. (3) (Prereq or Coreq: Marine Science 305 or Marine Science 401) Supervised work with a governmental agency, environmental organization, or commercial enterprise related to environmental concerns. Typical internships include experiences in environmental quality laboratories, landfill design and management, development and implementation of hazardous waste audits and recycling programs, as well as environmental education programs in composting and home hazardous waste disposal. Students must present their work as a written report and as an oral presentation in the College of Natural and Applied Sciences’ Annual Student Research Symposium. Students are responsible...
for transportation to the work site. Six to nine hours on site per week. Course may be taken a maximum of two times. F, S, Su.

416 Hydrogeology. (3) (=Geology 416) (Prereq: Marine Science 304 or permission of the instructor) This course will cover the elements of the hydrologic cycle, emphasizing ground and surface water movement through the hydrologic system. Topics will include hydrogeology, streams and floods, estuarine and wetland hydrology, properties of water, and the hydrologic continuum between rivers and the sea. Lecture will focus on theoretical aspects of water movement and the hydrologic system. Three lecture hours per week.

416L Hydrogeology Laboratory. (1) (=Geology 416L) (Coreq: Marine Science 416) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week.

420 Advanced Environmental Science. (3) (=Environmental Science 420) (Prereq: Biology 122, Mathematics 160, Chemistry 112 and Physics 201 or 211) (Coreq: Marine Science 420L) Students actively investigate the earth system along with current environmental issues. Emphasis is placed on the integration of the many subsystems that comprise the earth system. Environmental issues are scientifically explored in an effort to develop sustainable solutions. The lab is project oriented, including both a local environmental study and a global remote sensing study. Three lecture hours per week. S.

420L Advanced Environmental Science Laboratory. (1) (=Environmental Science 420L) (Coreq: Marine Science 420) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

445 Coastal Processes. (3) (Prereq: Marine Science 304, and Mathematics 161 or permission of instructor) (Coreq: Marine Science 445L) A comprehensive study of the physical and geological processes controlling the morphology and circulation within the coastal ocean. Beach, estuarine and shelf processes and environments are examined in detail. The importance of these processes to coastal management and protection is addressed. The course includes a laboratory where students will undertake a field study examining coastal processes and respond to, as well as discuss, relevant papers from the literature. Three lecture per week. S.

445L Coastal Processes Laboratory. (1) (Coreq: Marine Science 445) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

455 Marine Botany. (3) (=Biology 455) (Prereq: Biology 122, or Marine Science 302, or consent of instructor) (Coreq: Marine Science 455L) A field course in marine flora with emphasis on ecology and functional morphology. Work will stress the roles of marine bacteria, fungi, algae and angiosperms in coastal marine communities. Three lecture per week. F.

455L Marine Botany Laboratory. (1) (=Biology 555L) (Coreq: Marine Science 455) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.
(Marine Science)

457 Marine Zooplankton. (3) (Prereq: Marine Science 302 or Biology 310) (Coreq: Marine Science 457L) An introduction to the zooplankton populations found in coastal and oceanic waters. History of the field, sampling, ecological relationships, feeding, reproduction, and predator-prey interactions. Laboratory deals with the morphology and taxonomy of the major groups. Three lecture hours per week. S.

457L Marine Zooplankton Laboratory. (1) (Coreq: Marine Science 457) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

458 Fisheries Science. (3) (Prereq: Marine Science 302 and Math 160) An introduction to the practices and techniques of fisheries science. Topics include analytical and empirical models, stock assessment, age and growth analysis, mortality, recruitment and yield, production and early life history, harvesting techniques, and detailed study of important fisheries.

458L Fisheries Science Laboratory. (1) (Coreq: Marine Science 458) The laboratory demonstrates the topics and principles presented in lecture.

473 Field Studies in Shark Biology. (2) (=Biology 473)(Prereq: Biology 122 and permission of the instructor) An introduction to the biology of sharks. Lecture component held on campus covers evolution, anatomy, behavior, natural history, physiology, conservation and ecology. The one-week laboratory will be held at the Bimini Biological Field Station and will include capture and telemetry tracing of sharks and observation of sharks in both their natural habitat and captivity. F.

474 Ecosystems Analysis. (3) (Prereq: Permission of instructor) (Coreq: Marine Science 474L) The formulation of compartment models of marine and terrestrial ecosystems with complex nutrient cycling, food chains and energy flow. Analog and digital simulation techniques investigating ecosystem stability, sensitivity, organization structure and diversity. Three lecture hours per week. S.

474L Ecosystems Analysis Laboratory. (1) (Coreq: Marine Science 474) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

475 Marine Ecology. (3) (=Biology 475) (Prereq: Permission of instructor) Principles of organismic environmental interactions in various marine habitats. Emphasis on marshes, estuaries, and coastal waters. Each student is required to give an oral presentation. Three lecture hours per week. F.

475L Marine Ecology Laboratory. (1) (Coreq: Biology 475) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

476 Marine Plankton. (3) (=Biology 476) (Prereq: Marine Science 302) (Coreq: Marine Science 476L) This course explores the structure and function of planktonic communities. The role of phytoplankton, zooplankton and bacteria are examined in detail. Concepts such as: mineral cycling, energy flow, predator/prey relationships,
trophic interactions as well as spatial and temporal dynamics are investigated in lecture, discussion, and an integrated laboratory setting. Three lecture hours per week. S.

476L *Marine Plankton Laboratory.* (1) (=Biology 476L) (Coreq: Marine Science 476) The laboratory will demonstrate the topics and principles presented in lecture. The laboratory consists of field studies conducted in estuarine and marine environments and may require weekend commitments. Three laboratory hours per week. S.

477 *Ecology of Coral Reefs.* (3) (=Biology 477) (Prereq: Permission of instructor) Principles of organization, structure, productivity and biological diversity of coral reef ecosystem, with emphasis on their sensitivity and stability. Three lecture hours per week plus a two-week field experience on a tropical coral reef. Su.

478 *Wetland Plant Ecology.* (3) (=Biology 478) (Prereq: Biology 122 or Marine Science 302; Biology 370 is recommended) (Coreq: Marine Science 478L) An introduction to wetland types, wetland processes, and wetland management. Types of wetlands covered will include tidal freshwater, tidal saltwater, mangroves, interior freshwater, bogs, swamps, and riparian. Processes covered include hydrology, biogeochemistry, and biological adaptation. Wetland management topics include wetland definitions, classification, evaluation, manipulation, creation, and protection. Three lecture hours per week. F.

478L *Wetland Plant Ecology Laboratory.* (1) (=Biology 478L)(Coreq: Marine Science 478) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. F.

479 *Marine Benthic Ecology.* (3) (Prereq: Marine Science 302) (Coreq: Marine Science 479L) This course presents a comprehensive review of the structure and function of soft bottom marine communities. Taxonomic coverage ranges from microbial members (bacteria and microphytobenthos) to megafauna and demersal fishes. Ecological predation, cryptic coloration, diversity, benthic pelagic coupling and more. Three lecture hours per week. S.

479L *Marine Benthic Ecology Laboratory.* (1) (Coreq: Marine Science 479) The laboratory demonstrates the topics and principles presented in lecture. The lab involves group work in the field and laboratory culminating with oral presentations at the end of the course. Three laboratory hours per week. S.

487, 488, 489 *Selected Topics in Marine Science.* (1-4) (Prereq: Permission of instructor) These topics are designed to allow the development of seminars and courses in special areas of marine science. Offered on demand.

495 *Marine Environmental Issues.* (3) (Prereq: Marine Science 301 or 302 or 304, or 305 or by permission of instructor) (Coreq: Marine Science 495L) Theoretical and applied approaches to present day environmental problems are presented and critically discussed. Emphasis is placed on the solutions and future impacts. Students are presented overviews of several environmental issues and will generate a comprehensive analysis of the associated technical, economic, social and political issues and proposed solutions. The class meets with several
state and federal agencies involved in present day environmental issues providing students with exposure to "real world" applications. Each student will be required to give an oral presentation. Three lecture hours per week. S.

495L Marine Environmental Issues Laboratory. (1) (Coreq: Marine Science 495) The laboratory demonstrates the topics and principles presented in lecture. Three laboratory hours per week. S.

497 Marine Science Senior Thesis. (3) (Prereq: Completion of the Marine Science Core or Permission of Chair. A contract must be approved by the instructor and the department chair by the time of registration.) Each student plans and executes an original research project with guidance and supervision of a Marine Science faculty member. Results are presented in written and oral form. Senior thesis is strongly suggested for students intending to pursue graduate studies. F, S, Su.

499 Directed Undergraduate Research. (3-6) (Prereq: A contract must be approved by the instructor and the department chair by the time of registration.) Structured undergraduate research projects conducted with faculty direction and participation, or within the context of an approved off-campus internship. Projects explore marine or related problems using the scientific method. One conference and no less than five laboratory or field research hours per week. F, S, SU.

599 Directed Research (3-6) Structured research project for in-service teachers, conducted with faculty direction and participation. Projects explore marine or related problems using the scientific method.

MATHEMATICS (MATH)

101, 102 Basic Concepts of Contemporary Mathematics I, II. (3, 3) (Prereq: Placement test) Courses designed for liberal arts students not intending to take an advanced course in mathematics. Selected topics include number theory, set theory, logic, statistics, probability, consumer mathematics, the metric system, algebra, and geometry, with emphasis on critical thinking, problem solving, and applications to the liberal arts. F, S, Su.

130 College Algebra. (3) (Prereq: Placement test) Properties of functions, techniques of graphing polynomial and rational functions, systems of equations, and properties and applications of exponential and logarithmic functions. F, S, Su.


131 Trigonometry and Analytic Geometry. (3) (Prereq: Mathematics 130 or 130I or placement test) Right triangle and circular trigonometry, graphs of trigonometric and inverse trigonometric functions, trigonometric identities, solving trigonometric equations, vectors, complex numbers, and their applications. F, S, Su.
132 Calculus for Business and Social Science. (3) (Prereq: Mathematics 130 or 130I or placement test) Limits, derivatives of algebraic, exponential, and logarithmic functions, curve sketching, applications to optimizing, and antidifferentiation. F, S, Su.

150 Applied Calculus I. (3) (Prereq: Mathematics 130 or 130I and 131 or placement test) Limits, continuity, differentiation of algebraic and trigonometric functions, curve sketching, applications to optimizing, related rates and antidifferentiation. Offered on demand.

160 Calculus I. (4) (Prereq: Mathematics 130 or 130I and Mathematics 131 or placement test.) Limits, continuity, differentiation and integration of algebraic and transcendental functions, applications of the derivative to curve sketching, optimization and related rates. F, S, Su.

161 Calculus II. (4) (Prereq: Mathematics 160) Applications of ration, techniques of integration, conic sections, parametric equations, the polar coordinate system, vectors, sequences and series. F, S, Su.

174 Introduction to Discrete Mathematics. (3) (Prereq: Mathematics 130 or 130I) Set theory, logic, divisibility, matrix algebra, combinatorics, relations, functions, digraphs, and Boolean algebra. F, S.

201 Mathematics for Early Childhood and Elementary Education Majors I. (3) (Prereq: Mathematics Placement Test results into Mathematics 130 or 130I) Set theory, the meaning of number and the structure of the real number system, algorithms, elementary number theory, and problem solving. Open only to students in early childhood and elementary education. F, S, Su.

202 Mathematics for Early Childhood and Elementary Education Majors II. (3) (Prereq: Mathematics 201) Informal geometry and basic concepts of algebra. Open only to students in early childhood and elementary education. F, S, Su.

203 Mathematics for Early Childhood and Elementary Education Majors III. (3) (Prereq: Mathematics 201 and 202) Coordinate geometry, algebra, probability and statistics, computer applications, and calculators. Open only to students in early childhood and elementary education. F, S, Su.

210 Introduction to Operations Research. (3) (Prereq: Mathematics 130 or 130I) Elementary matrix theory, systems of linear equations, linear programming, combinatorics, probability theory, and the theory of games. S.

242 Modeling for Scientists. (3) (Writing Intensive) (Computer Usage) (Prereq: Mathematics 161) (Coreq: Mathematics 242L) An introductory course in the fundamentals of mathematical modeling for science and mathematics students. The class is designed to introduce students to concepts in mathematical modeling with differential equations. Models of population dynamics, growth and decay, rate balance and others will be discussed. An introduction of partial differential equations and diffusion modeling are discussed. Emphasis is on formulation and interpretation of the models. Computers are used to solve the models numerically. S, even years.

242L Modeling for Scientists Lab. (1) (Prereq: Mathematics 161) (Coreq: Mathematics 242) Students are introduced to a computer software package aiding in the solution of models developed in class. Lab assignments help students understand concepts of mathematical modeling. Three (3) laboratory hours per week. S, even years.

260 Calculus III. (4) (Prereq: Mathematics 161) Lines, planes and surfaces in space; spherical and cylindrical coordinate systems; vector valued functions; differentiation of functions of several variables; multiple integration and applications; topics in vector analysis. F, S.

320 Elementary Differential Equations. (3) (Prereq: Mathematics 161) Ordinary differential equations of the first order, higher order linear differential equations, methods of Laplace transforms and series, and numerical solutions to differential equations. Applications to the physical sciences and engineering. S.

331 Foundation of Geometry. (3) (Writing Intensive) (Prereq: Mathematics 220) The study of geometry as a logical system based upon postulates and undefined terms. The fundamental concepts and relations of Euclidean geometry developed rigorously on the basis of a set of postulates. Some topics from non-Euclidean geometry and topology. F, odd years.

332 Modern Geometry. (3) (Writing Intensive) (Prereq: Mathematics 220) Projective geometry, theorem of Desargues and Pappus, transformations, convexity, and topology. F, even years.

344 Linear Algebra. (3) (Prereq: Mathematics 161) Vector spaces, linear transformations, matrices, systems of equations, determinants, eigenvectors and eigenvalues. F.


370 Elementary Number Theory. (3) (Prereq: Mathematics 161 or permission of instructor) Divisibility theory, Diophantine equations, primes, congruences, Fermat's theorem, number theoretic functions, Euler's theorem, Pythagorean triples. Offered on demand.
Mathematics Practicum.  (1) (Prereq: Mathematics 260, GPA in mathematics courses greater than or equal to 3.0 and permission of the instructor) By working with faculty teaching introductory level college mathematics courses, students have the opportunity to enhance and/or increase their understanding of those concepts of mathematics that are the foundation of these courses. A student may not enroll in this course more than 3 times nor will the course satisfy any requirement for the major or minor in mathematics or any core requirement. Course will be graded pass/fail. F, S.

Independent Study/Internship. (1-4) (Prereq: A contract must be approved by the instructor and the department chair by the time of registration.) Directed study of specific topics or supervised work as part of an approved internship. F, S, Su.

Elements of General Topology. (3) (Prereq: Mathematics 260) Elementary properties of sets, functions, spaces, maps, separation axioms, compactness, completeness, convergence, connectedness, embedding and extension theorems, metric spaces, and compactification. Offered on demand.

Abstract Algebra. (3) (Prereq: Mathematics 220 and Mathematics 344) Fundamental properties of groups, rings, and fields. S.

Advanced Calculus I. (3) (Prereq: Mathematics 220 and 260) Sequences, series, continuity, differentiation and integration, and sequences and series of functions. S.

Complex Variables. (3) (Prereq: Mathematics 260) (Writing Intensive) Complex numbers and functions (trigonometric, exponential, logarithmic, hyperbolic, inverse, analytic, and harmonic), and complex limits, continuity, differentiation, integration, sequences and series. F.

Analysis. (3) (Prereq: Mathematics 450 or permission of the instructor) Least upper bound axiom, metric spaces, continuous functions on metric spaces, completeness, compactness, existence of the Riemann integral, and the fundamental theorem of calculus. Offered on demand.

Numerical Calculus. (3) (=Computer Science 360) (Prereq or Coreq: Mathematics 260 and a working knowledge of a programming language) Introduction to numerical methods, interpolation, quadrature, solution of linear and nonlinear systems of equations, and error analysis. Two lectures and two laboratories per week. S.

Applied Mathematics I. (3) (Prereq: Mathematics 320) Orthogonal sets of functions and the Sturm-Liouville eigenvalue problem; Fourier series and integrals, and solution of partial differential equations by separation of variables; boundary value problems in polar, cylindrical, and spherical coordinate systems, Bessel functions. F, odd years.

Applied Mathematics II. (3) (Prereq: Mathematics 465) Mechanics of rigid bodies and particle systems in two and three dimensions, Lagrange’s equations, and generalized coordinates. Offered on demand.
(Mathematics, Music)

474  **Discrete Mathematics I.** (3) (Prereq: Mathematics 160 and 174) Mathematical models, mathematical reasoning, enumeration, induction and recursion, tree structures, networks and graphs, and analysis of algorithms. Applications to computer science are discussed. S.

490  **Seminar in Mathematics.** (1) (Writing Intensive) (Prereq: Completion of 21 hours in mathematics in courses numbered 150 or higher) Problems from various areas of mathematics will be discussed with emphasis placed on developing the students capability to do research of an expository nature and to present their results in both written and oral form. F.

499  **Directed Undergraduate Research.** (1-3) Topics in pure and applied mathematics and/or selected to meet current faculty and student interest. F, S, Su.

**MUSIC (MUS)**

A description of Applied Music courses follows the course descriptions of all other music courses.

100  **Recital Class.** (0) Required attendance for all students enrolled in applied lessons. Attendance and participation in student performances, recitals, and seminars. Graded S or U.

110  **Introduction to Music.** (3) A course open to all students who are interested in gaining a comprehensive appreciation of music through intelligent listening. Representative masterpieces of the various periods of musical composition are studied. Emphasis on correlation of music to other arts. No previous study of music is required. F, S.

115, 116  **Introduction to Music Theory I, II.** (3 each) (Prereq: for 115, passing score on placement test and permission of instructor; 115 is prerequisite to 116.) Study of basic elements of music with emphasis on recognition by sight and sound. Various styles and genres of music are studied. Three class meetings per week.

117, 118  **Ear Training and Sight Singing I, II.** (1 each) (Prereq: for 117, placement test and permission of instructor; 117 is prerequisite to 118.) The study of basic musicianship skills emphasizing, visual, aural, and kinesthetic recognition and reproduction of melodic intervals, chords, chordal progressions, and rhythmic patterns. Two class meetings per week.

124A  **Symphonic Band.** (1) Study, rehearsal and performance of wind band music written for large instrumental ensembles. Includes several performances and concerts. Emphasis on attaining high musical standards.

124D  **Drumline.** (1) Examination of percussion performing techniques in an ensemble setting. Students participate in a drumline setting on percussion instruments. This is an ensemble experience designed to allow prospective teachers and performers to implement proper techniques used in school bands and professional performance.
**Marching Band.** (1) Marching Band serves as a creative and performing outlet for university students. Additionally, music education majors gain valuable pedagogical experience.

**Band/Pep.** (1) (Prereq: The equivalent of three years of high school ensemble playing plus audition and/or permission of instructor) Rehearsal and performance of typical pep band music, with required participation in off-campus and on-campus events including athletics and public relations events. Open to all qualified students at Coastal Carolina and all qualified members of the local community. May be repeated; students should check with their major department regarding applicable degree credit.

**Steel Drum Ensemble.** (1) Study, rehearsal and performance of steel drum music indigenous to Trinidad and Tobago. Includes several performances and concerts. Emphasis on attaining high musical standards and proficiency.

**Coastal Carolina Concert Choir.** (1) Members are chosen by individual auditions. The course is devoted to the study of the best works of choral literature. Public concerts. F, S. May be repeated; students should check with their major department regarding applicable degree credit.

**University Orchestra.** (1) (Prereq: permission of instructor) A course consisting of rehearsals and performances with the Long Bay Symphonic Society, playing standard orchestral literature with a renowned conductor. May be repeated; students should check with their major department regarding applicable degree credit.

**University Gospel Choir.** (1) A course offering students an opportunity to learn gospel music and to sing at gospel gatherings across the state. May be repeated; students should check with their major department regarding applicable degree credit.

**Ensemble.** (1) (Prereq: Performing ability in the applied music area concerned) The study and performance of literature, and/or ensemble works for piano, organ, voice, strings, woodwinds, and brasses. Two class meetings per week. F, S. May be repeated; students should check with their major department regarding applicable degree credit.

**Pop 101.** (1) (Prereq: individual audition) A vocal jazz ensemble dedicated to the best in authentic jazz and pop music. May be repeated for credit; students should check with their major departments regarding applicable degree credit.

**Ensemble-Piano Accompaniment.** (1) (Prereq: Piano performance ability and permission of instructor) The study and performance of solo and ensemble works with piano accompaniments, including works for voice, strings, woodwinds, brasses, etc. Two meetings per week. Times to be arranged. May be repeated; students should check with their major department regarding applicable degree credit.
Jazz After Hours. (1) (Prereq: Audition and/or permission of instructor) Rehearsal and performance of jazz and dance band music, with possible participation in off-campus and on-campus events. Open to all qualified students at Coastal Carolina University and all qualified members of the local community. May be repeated; students should check with their major department regarding applicable degree credit.

Class Guitar I. (2) This class is designed for non-major beginning guitar students who are interested in incorporating active musical participation into their daily life experience. Students will develop competency in functional acoustic guitar techniques, basic music theory fundamentals, and the use of the guitar as an accompaniment to the voice. Students are responsible for providing their own acoustic or classical guitar. F.

Class Guitar II. (2) (Prereq: Music 167 or permission of instructor) This course is a continuation of Music 167, and it is designed to help students develop increased competency in acoustical guitar techniques. Students will develop musicianship through the use of the guitar as a solo instrument and as an accompaniment to the voice. Students are responsible for providing their own acoustic or classical guitar. S.

Piano Proficiency Lab I. (2) (Prereq: Permission of Department of Performing Arts) The first in a series of two semesters designed for the development of basic keyboard skills. Taught in a multi-keyboard lab setting for: 1) the BA candidate with a music/minor in music; 2) the BA candidate in music theater; and 3) the MAT candidate in music (MAT candidates may exempt Music 175/176 with approval of the department of music after successful completion of equivalent courses at the undergraduate level, or by departmental examination prior to enrollment). Emphasis on the development of reading skills, performance from memory, accompanying simple melodies using I-IV-VI7-V7 chords with various accompanimental patterns, and playing Major/harmonic minor scales and arpeggios. F. S.

Piano Proficiency Lab II. (2) (Prereq: Permission of Department of Performing Arts) A continuation of Music 175, designed for more intensive development of basic keyboard skills. Taught in a multi-keyboard lab setting for: 1) the BA candidate with a music/minor in music; 2) the BA candidate in music theater; and 3) the MAT candidate in music (MAT candidates may exempt Music 175/176 with approval of the Department of Performing Arts after successful completion of equivalent courses at the undergraduate level, or by departmental examination prior to enrollment). PLEASE NOTE: (Music 176 is not required of candidates for the BA in music theater). Emphasis on the continued development of reading skills and performance from memory, reading of open instrumental and choral scores, reading of various combinations of clefs and transposing/non-transposing instruments, playing of dominant 7th and diminished 7th arpeggios, performance of vocal/instrumental accompaniments, and the transposition of grand staff notation to different keys. F. S.

Theory and Literature I, II. (3 each) (Prereq: 116 is prerequisite to 215; 215 is prerequisite to 216) A chronological study, theoretical and historical, of music in the Western tradition through the end of the nineteenth century. Special attention to visual and aural skills. Three class meetings per week. F. S.
217, 218 Ear Training and Sight Singing III, IV. (1 each) (118 is prerequisite to 217; 217 is prerequisite to 218) The continued study of basic musicianship skills emphasizing visual, aural, and kinesthetic recognition and reproduction of melodic intervals in both tonal and atonal contexts, and more complex chords, chordal progressions, and rhythmic patterns. Two class meetings per week.

253, 254 History of Western Music I, II. (3 each) (Prereq: for Music 253, at least two semesters of college-level music theory. Music 253 is prerequisite to Music 254.) A study of music and its place in Western civilization from the Middle Ages to the Baroque (first semester) and from the Eighteenth Century to the Twentieth Century (second semester).

300 Junior Recital. (0) Minimum 30-minute solo recital. Repertoire to be selected in consultation with applied teacher.

316 Elementary Piano Pedagogy. (3) (Prereq: Permission of instructor) Introduction to basic concepts, techniques, and materials for teaching elementary piano and intermediate piano. S.

333 Basic Choral and Instrumental Conducting. (2) (Prereq: Two semesters of college level music theory) A course in organizing, conducting and maintaining choral and instrumental organizations. Elementary conducting technique. F.

334 Choral Conducting. (2) (Prereq: Music 333) A study of the problems and techniques of choral conducting, principles of group tone production, and interpretive factors involved. Practical experience with college music organizations.

357 American Popular Music. (3) (Prereq: Music 110 or its equivalent) A survey of American popular music from the 19th Century to the present. This music is explored regarding its musical characteristics, its relationship to the European classical tradition, and, where appropriate, its role as social commentary.

385 Form and Analysis. (3) This course is an introduction to concepts of design, or form, in music as found in standard tonal literature. The primary focus of the course will be to learn how to perceive and analyze music. The intent is to have the student understand how tonality shaped the thinking of composers regarding how music is constructed, and to see how melody, harmony, and rhythm interact to create designs starting with phrases, and going on ultimately to entire compositions.

386 20th Century Music Theory. (3) A survey course intended to acquaint the students with the changes in music’s language and vocabulary that occurred during the twentieth century. Starting with the increased chromaticism of the later nineteenth century, the course will explore the changes in harmony, melody, rhythm, and form found in representative European and American composers.

399 Independent Study. (3) For more information, see Academic Regulations. May be repeated for credits under different topics.

400 Senior Recital. (0) Minimum 45-minute solo recital. Repertoire to be selected in consultation with applied teacher.
420  **Orchestration and Arranging.** (2) (Technology Intensive) To be able to write functional arrangements using current technology, with emphasis on the needs of the typical public school choral and instrumental ensemble. This course will introduce students to the instrument and vocal families and basic arranging and compositional concepts for a variety of ensembles. Both classical orchestration and jazz and commercial arranging will be covered as will the practical rearranging which is always required of school and church music directors (i.e. the CCU choir has no tenors at present). The aim is to give students the practical musical skill and technical knowledge needed to produce clean and correct scores and parts for performances by wind, brass, string, vocal, jazz, rock, and mixed ensembles.

414  **Piano Literature.** (3) (Prereq: Permission of instructor) Study of evolution and development of the instrument and its effects upon the repertoire illustrated by the major works of the various periods of piano composition. F.

434  **Vocal Literature.** (3) (Prereq: Junior Level and permission of the instructor) A survey of solo literature for voice from the seventeenth century to the present.

453  **Music and Musicians Since 1900.** (3) A study of the impact of western music and musicians on contemporary American and European Life. Special attention will be paid to the increasing role of women in composition and performance of music.

492  **Fundamentals of String Instruments.** (1) The primary objective of this class is to give students who will eventually be teaching string players a general working knowledge of the string family of instruments. Students will have hands-on experience playing each of the string instruments and will be presented with concise information regarding every facet of string playing.
(Applied Music, Music Education)

APPLIED MUSIC (2 Credit Hours each)

Piano ................................................................. 101, 111, 112, 211, 212, 311, 312, 411, 412
Organ ................................................................. 102, 121, 122, 221, 222, 321, 322, 421, 422
Voice ................................................................. 103, 131, 132, 231, 232, 331, 332, 431, 432
String Instruments .............................................. 104, 141, 142, 241, 242, 341, 342, 441, 442
Woodwind Instruments ................................. 105, 151, 152, 251, 252, 351, 352, 451, 452
(Flute, Clarinet)
Brass Instruments ............................................. 106, 161, 162, 261, 262, 361, 362, 461, 462
(Trumpet, Trombone, French Horn)

MUSIC EDUCATION (MUED)

163 Diction I. (2) Introduction to International Phonetic Alphabet and to the basic fundamentals of enunciation and articulation in singing English, Latin, Italian, German, and French.

164 Diction II (2) (Prereq: Music Education 163) Continuation of Music Education 163.

165, 166 Class Voice I, II. (2 each) (Prereq: for Music 165, permission of instructor. Music 165 or permission of instructor is prerequisite to Music 166) Elementary course in singing in which both group and individual techniques are employed. Emphasis on the study of voice production and principles of singing. Two class meetings per week. 165 F, 166 S.

244A Fundamentals of String Instruments. (1) (Prereq: Permission of instructor) An 8-week course teaching basic skills in playing stringed instruments and the methodology of teaching strings.

354 Music for Young Children. (3) Emphasis on such topics as the place of music in the education of young children, free and dramatic interpretation of music, listening and rhythmic activity, and rhythm instruments. Designed for students in early childhood and elementary education. Three meetings and one laboratory period each week. F, S.

391 Fundamentals of Brass Instruments. (1) The primary objective of this class is to give students who will eventually be teaching brass players a general working knowledge of the brass family of instruments. Students will have hands-on experience playing each of the brass instruments and will be presented with concise information regarding every facet of brass playing. At the completion of this course, students should be able to perform competently at the beginner level on each of the brass instruments and will possess a strong working knowledge of the technical aspects of the brass playing. Ultimately, the goal of the course is to provide the knowledge necessary to enable the student to be an effective educator for his or her brass students.

392 Fundamentals of Woodwind Instruments. (1) The primary objective of this course is to give students who will eventually be teaching flute and single reed players a general working knowledge of the woodwind family of instruments.
(Music Education)

Students will have hands-on experience playing each of the instruments and will be presented with concise information regarding every facet of woodwind playing. At the completion of this course, students should be able to perform competently at the beginner level on each of the woodwind instruments and will possess a strong working knowledge of the technical aspects of playing. Ultimately, the goal of the course is to provide the knowledge necessary to enable the student to be an effective educator to his or her woodwind students.

415 Elementary Piano Pedagogy. (3) (Prereq: Permission of instructor) Introduction to basic concepts, techniques, and materials for teaching elementary and intermediate piano students.

416 Piano Pedagogy Internship. (1) (Prereq: Junior Level and permission of the Instructor) (Coreq: Music 316) Piano Pedagogy and its application to the beginning piano student. Directed teaching of individual and group lessons.

435 Vocal Pedagogy Internship. (1) (Prereq: Junior Level and permission of the instructor) (Coreq: Music Education 336) Study of the voice production, quality, classification, registration, range, anatomy and physiology. Directed teaching of individual lessons and ensemble rehearsals.

436 Elementary Voice Pedagogy. (3) (Prereq: Junior level and permission of the instructor) (Coreq: Music Education 335) Introduction to basic concepts, techniques, and materials for teaching elementary and intermediate voice.

491 Fundamentals of Percussion Instruments. (1) The primary objective of this class is to give students who will eventually be teaching percussion players a general working knowledge of the percussion family of instruments.

492 Fundamentals of String Instruments. (1) The primary objective of this class is to give students who will eventually be teaching string players a general working knowledge of the String family of instruments. Students will have hands-on experience playing each of the instruments and will be presented with concise information regarding every facet of String playing. At the completion of this course, students should be able to perform competently at the beginner level on each of the String instruments and will possess a strong working knowledge of the technical aspects of playing. Ultimately, the goal of the course is to provide the knowledge necessary to enable the student to be an effective educator for his or her String students.

520 Orchestration and Arranging. (3) An introduction to the instrument and vocal families and basic arranging and compositional concepts for a variety of ensembles. Both classical orchestration and jazz and commercial arranging are covered as well as the practical rearranging required of school and church music directors. Technology Intensive.

542 Foundations of Elementary Music Education. (3) Principles and practices for teaching music in grades Pre K-6. Emphasis is given to planning, teaching and evaluating general music lessons at different levels based on the
National Standards for the Arts and to utilizing techniques and materials from a variety of approaches including Kodaly and Orff Pedagogy.

543 **Foundations of Secondary Music Education.** (3) Teaching and organization of music classes in middle and senior high school focusing on state and national standards. Emphasis will be given to the areas of general, instrumental, and vocal music. Includes consideration of performance and non-performance classes and implications of the National Standards for the Arts.

544 **Principles and Methods of Teaching Music.** (3) An overview of the total music program in a variety of school settings to include the development of artistry in musicianship, pedagogy, and scholarship. Demonstration and discussion of relevant approaches to the teaching and planning of choral, general, and instrumental music at all levels are included.

560 **World Music: Cross-Cultural Communication in Contemporary Education.** (3) Study of important musical genres and practices outside the direct influence of Western practice and history. Some of the world’s great musical and cultural traditions are experienced through performance, analysis, and discussion of the music within the greater context of the society. Ancillary topics include religion, philosophy, language patterns, cultural history and traditional customs.

**PHILOSOPHY (PHIL)**

101 **Introduction to Philosophy.** (3) This course is an introduction to the most central problems of philosophy. Topics include logic, God, mind, justice, personal identity, freedom and determinism, knowledge, skepticism, morality and responsibility. The course provides an introduction to argumentation, critical thinking conceptual analysis, and problem solving skills.

110 **Introduction to Logic I.** (3) This course provides an introduction to the essential elements in critical thinking, including the role of arguments and definitions, recognition of linguistic fallacies, and syllogistic and propositional techniques of deductive inferences. Extensive practical application will be examined, including specific examples for professional and graduate school admissions tests.

The Following Courses Require Sophomore Standing or Above, or Permission of the Instructor.

300 **Ancient Philosophy.** (3) (= Classical Studies 300) This course is a survey of the history of ancient Greek philosophy from the Milesians through Aristotle. It traces the development of philosophical themes among the Pre-Socratics and proceeds to their development in the works of Plato and Aristotle. The emphasis throughout will be on understanding, analyzing, and evaluating the arguments of the philosophers.

301 **Modern Philosophy.** (3) This course is a survey of Western philosophical thought from the early Renaissance through Hume. The chief emphasis is on the 17th and 18th century including Bacon, Descartes, Spinoza, Leibniz, Hobbes, Locke, Berkely and Hume. This course may be taken prior to Philosophy 300.
(Philosophy)

302 **18th and 19th Century Philosophy.** (3) (Prereq: Philosophy 101 and one philosophy course on the 300 level or permission of the instructor) This course centers upon philosophical developments after the Enlightenment period. The critical philosophy of Immanuel Kant (especially his *The Critique of Pure Reason*), the dialectical thought of G.W.F. Hegel and his anti-systemic critics are the focus of the course.

303 **American Philosophy.** (3) The principal movements of philosophical thought from Colonial times to the present, with special emphasis on the 18th and 20th centuries.

305 **Contemporary Moral Issues.** (3) This is a course in the application of ethical theory through the examination of moral issues confronting people in contemporary society. Topics vary but may include discussion of ethical problems related to abortion, drug use and laws, euthanasia, war and terrorism, homosexuality, violence, animal rights, the environment, and punishment.

309 **Philosophy of Mind.** (3) (Prereq: Philosophy 101) This course is an introduction to the fundamental questions, concepts and problems of contemporary philosophy of mind including those concerning the nature of mind, the relationship between mind and world, and understanding consciousness. Readings from Ryle, Armstrong, Lewis, Block, Churchland, Dennett, Jackson, Shoemaker, Tye, Dretske, et al.

310 **Philosophical Themes in Literature.** (3) Selected philosophical problems as they are presented in imaginative and theoretical literature. Works of fiction and philosophical treatments of issues involved in them are read and discussed.

311 **Ethical Theory.** (3) (Writing Intensive) (Prereq: Philosophy 101 or consent of instructor) A study of moral principles and the basic concepts underlying these principles, such as good, evil, right, wrong, justice, value, duty, and obligation. Using the original source readings from both classical and contemporary moral philosophy, this course develops an understanding of the philosophical foundations of various ethical theories.

313 **Philosophy of Art.** (3) Philosophical problems relating to the arts, with emphasis on questions pertaining to aesthetic experience.

314 **Social and Political Philosophy.** (3) An examination of modern political philosophers, their responses to political, social, economic and legal concepts and issues concerning liberties and rights in the authority-individual relationship.

315 **Technology and Human Values.** (3) (Prereq: Philosophy 101, permission of instructor) Technology has come to play an increasingly dominant role in human life. This course analyzes modern technology from several perspectives including: the ethical implications of employing information systems, the neutrality of non-neutrality of technology, the individual, social, and cultural impact of technology transfer, and the impact of technology upon the environment. The works of both critics and proponents of technology are explored.
Crime and Justice. (3) The fundamental concepts of a criminal justice system, and their philosophical bases. Rights, privacy, responsibility, and the problem of justification of state control of private behavior through punishment and theory.

Bio-Medical Ethics. (3) Ethical problems in medicine and biological research and the application of ethical principles to real-life situations involving patient autonomy, health care professionals, the beginning of life, the end of life, and human genetic experimentation.

Business Ethics. (3) Ethical theory is presented and applied to business cases involving individual, corporate, and governmental rights and responsibilities.

Environmental Ethics. (3) Ethical problems concerning the environment and the application of ethical principles to real-life situations involving development vs. preservation, human and nature, animals, bio-diversity, bio- and eco-centrism, deep ecology, and social and public policy.

Existentialism. (3) An introduction to existentialism themes in contemporary philosophy, literature, psychology and religion. The writings of existentialists such as Kierkegaard, Nietzsche, Camus, Sartre, Buber, May and Binswanger will be read and discussed.

Symbolic Logic. (3) (Prereq: Philosophy 110 or permission of instructor) This course explains the development, application, and theoretical properties of an artificial symbolic language designed to provide a clear representation of the logical structure of deductive arguments. The course might also explore first order calculus with identity and function symbols and some metatheorems about consistency, soundness, completeness and compactness.

Philosophy of Science. (3) (Prereq: Philosophy 101 or permission of instructor) A critical examination of methods and concepts of the sciences. Topics include scientific revolutions, the unity of science, experimentation, explanation, and evidence.

Special Topics. (3) A. Attitude Awareness. B. Philosophy of Mysticism. C. Morality of Ethical Leadership.

Independent Study. (3) For more information, see Academic Regulations section. May be repeated for credit under different topics.

Interdisciplinary Independent Study. (3-9) Directed independent study at the honors level in two or more departments. For more information, see Academic Regulations section in this Catalog. May be repeated for credit under different topics.

Philosophy of Religion. (3) This course focuses on some central questions in philosophy of religion. Is religious faith rational? Can God's existence be proved or disapproved? Can religious experience provide knowledge? Is there life after death? Philosophy of religion subjects the claims of religious faith to rational scrutiny and critical evaluation.
(Philosophy, Physical Education)

419  **Epistemology.** (3) (Prereq: Philosophy 101 and one philosophy course on the 300 level or permission of the instructor) This course is an introduction to the problems and methods of modern epistemology. It explores central questions such as “What is it to know something?” and “What is it about some beliefs that make them more highly justified than others?” The central focus of the course is the study of the relationship between justification and knowledge. It pays careful attention to the skeptics who claim curiously that no one ever knows anything and that no one is ever justified in believing anything.

420  **Metaphysics.** (3) (Prereq: Philosophy 101 and one philosophy course on the 300 level or permission of the instructor) This course focuses on issues that center around such notions as substance, causality, essential properties, individuation, time, possible but nonactual states of affairs, and identity. Among the questions considered are: “Do any of the things there are endure through time?” “How should we understand possible but nonactual states of affairs?” “Are subjects of consciousness just complexes of subatomic particles?” “Are material objects like tables and chairs ultimately made up of things that have no parts?”

490  **Capstone Seminar.** (3) (Prereq: Philosophy 311) This seminar engages philosophy majors in advanced research and discussion involving ethical theories, their philosophical foundations, and their application. Based upon the philosophy major's choice, the seminar will result in a written product either suited for submission to a scholarly journal or as a comprehensive final report for an applied ethics project.

495  **Internship for Philosophy.** (3) Students will receive instruction and gain professional experience in an internship while working 10 hours per week for 12 weeks with a local business. Course contract must be approved prior to registration.

**PHYSICAL EDUCATION (PHED)**

102  **Basketball.** (1) Study designed to introduce beginning and intermediate level skills instruction and strategies leading to active participation in game situations. May be taken up to three times for credit.

103  **Volleyball.** (1) Study designed to introduce beginning and intermediate level skills instruction and strategies leading to active participation in game situations.

104  **Adult Fitness.** (1) Measurement of cardiovascular fitness and implementation of a personalized exercise program for improving the heart and circulatory system, muscular system, respiratory system, and weight control.

106  **Aerobic Dance.** (1) Instruction and participation in low-impact to high-impact aerobic dance activities performed to music, using a variety of locomotor movements, with particular attention muscle toning and cardiovascular development.

107  **Golf.** (1) Emphasis on the mastery of individual skills, history, rules, etiquette and tournament play.
108 **Beginning Gymnastics.** (1) Fundamentals of gymnastics, trampoline, balance, tumbling and apparatus.

109 **Bowling.** (1) Instruction in bowling to include, grip, approaches, releases, spot bowling techniques, knowledge of rules, equipment, and safety procedures.

110 **Karate.** (1) Designed to teach the fundamentals of karate.

112 **Soccer and Field Hockey.** (1) Designed to teach fundamental skills for game performance, history, rules and game strategy.

113 **Softball.** (1) Designed to teach fundamental skills for game performance, history, rules and game strategy.

114 **Swimming.** (1) Designed to develop the basic strokes and skills necessary for safety and recreation in the water.

116 **Tennis.** (1) Emphasis on the mastery of individual skills, rules, scoring, etiquette and tournament play for the beginner in tennis.

118 **Weight Training and Body Dynamics.** (1) Designed to teach the fundamentals of weight training and body building. May be taken up to three times for credit.

119 **Wrestling.** (1) Development of skills necessary to participate in wrestling. May be taken up to three times for credit.

120 **Beginning Racquetball.** (1) Study to provide information, through on-court experiences, in scoring, rules, etiquette, and strategy of the game. Students also develop skills in proper grips and strokes of racquetball, as well as experience practice in match play. May be taken up to three times for credit.

126 **Fundamentals of Movement and Body Conditioning.** (1) Designed to develop basic axial and locomotor movements as they pertain to physical education activities. Emphasis on improvement of agility, flexibility, strength and endurance through body conditioning as necessary in skill performance. May be taken up to three times for credit.

132 **Foundations of Physical Education.** (3) To introduce the beginning student of physical education to the principles and philosophy of the profession; to develop sound concepts in the major academic areas that comprise the profession; and to develop an awareness of the need to implement this knowledge into a well-rounded physical education program in the schools and recreation departments. The course is taught through lecture, group activities, and the use of different formats. F, S.

143 **Football.** (1) Designed to teach the basic fundamental skills at various positions of football. May be taken up to three times for credit.
(Physical Education)

148 **In-line Skating.** (1) Instruction includes safe techniques of rollerblading in addition to care of skates, in-line skating and physical conditioning. (Students are encouraged to provide their own skates if available.) May be taken up to three times for credit.

149 **Backpacking.** (1) Instruction in the fundamentals of backpacking for those students who have had previous camping experience and are interested in learning basic wilderness and survival skills, to include basic first aid, low impact camping methods, physical conditioning and environmental living skills. (Students are responsible for costs associated with the trip.) May be taken up to three times for credit.

150 **Ropes Course.** (1) An introduction to the use and benefits of a ropes course using the Challenge Course at Coastal Carolina as a laboratory. Participation focuses on accepted terminology, concept development, and skill acquisition. May be taken up to three times for credit.

151 **Sailboarding.** (1) Instruction in the art and skill of sailboarding. The student develops the necessary basic techniques to perform the activity. (Fee required) May be taken up to three times for credit.

152 **Angling.** (1) Instruction in the proper techniques of bait casting, fly casting, and spin casting. Opportunities are provided for practicing each technique. (Fee required) May be taken up to three times for credit.

153 **Canoeing.** (1) Instruction includes the development of safety techniques and paddling skills in canoeing. Students learn to handle a canoe in a variety of water classifications. (Fee required) May be taken up to three times for credit.

154 **Horseback Riding.** (1) An introduction to the various aspects of horseback riding. The student develops the physical skills and the knowledge of safe practices and proper use of equipment. (Fee required) May be taken up to three times for credit.

155 **Orienteering.** (1) Instruction in the use and knowledge of the compass and topographic maps. Students learn how to navigate a simple orienteering course. (Fee required) May be taken up to three times for credit.

156 **Rock Climbing.** (1) The development of basic rock climbing skills. Students are required to develop a reasonable degree of strength and fitness and safety procedures prior to completing a variety of basic climbs. (Fee required) May be taken up to three times for credit.

157 **Cycling.** (1) Students develop a knowledge of the types and uses of different bicycles. Safety equipment and safe riding techniques are stressed along with the different levels of intensity of training and use of cycles. (Students are responsible for furnishing their own bicycle.) May be taken up to three times for credit.

158 **Snow Skiing.** (1) An introduction to the various aspects of snow skiing. Focus of the course is on skill and safety, correct attire and equipment, and skiing techniques prior to completing a ski trip. (Students are responsible for costs associated with the ski trip.) May be taken up to three times for credit.
Wilderness Camping. (1) Exposure to and study of the wilderness environment. Emphasis is on conservation of the natural environment and camping without a trace. Students develop skills in various aspects of campcraft. (Students are responsible for costs associated with the trip.) May be taken up to three times for credit.

Water Skiing. (1) The development of the basic skills and safety procedures of water skiing. Students practice basic drownproofing skills in the pool prior to completing the water skiing phase of the course. (Fee required) May be taken up to three times for credit.

Beginning Modern Dance. (1) Study designed to introduce fundamental skills and terminology as they apply to contemporary dance. May be taken up to three times for credit.

Advanced Modern Dance. (1) Advanced movement skills, techniques and organization for teaching skills. May be taken up to three times for credit.

Ballet. (1) Study designed to introduce fundamental skills and terminology as they apply to ballet. May be taken up to three times for credit.

Jazz. (1) Study designed to introduce fundamental skills and terminology as they apply to jazz dance. May be taken up to three times for credit.

Social Dancing. (1) Study designed to introduce fundamental skills and terminology in ballroom dancing. May be taken up to three times for credit.

Folk, Square and Social Dance. (1) Basic dance steps; sequence of movements and an overview of dances of various countries as they relate to their customs. May be taken up to three times for credit.

Advanced Swimming. (1) Study and practice of competitive swimming strokes for advanced swimmers. May be taken up to three times for credit.

Lifeguard Training. (3) (Prereq: Permission of instructor based on a preliminary swimming assessment during initial class meeting) Study designed to enable students to become certified through the American Red Cross in Lifeguard Training, Adult CPR, and Standard First Aid.

Water Safety Instructor Training. (3) (Prereq: Permission of instructor based on a preliminary swimming assessment during initial class meeting) Study designed to certify the student as an American Red Cross Water Safety Instructor. Teaching methodology and strategies are developed to enhance instructional abilities.

Skin and Scuba Diving. (1) (Prereq: Ability to swim well) Designed to enable students to use equipment safely and effectively and to understand the principles and physical laws upon which this sport is based. (Additional fees for supplies and equipment are required) May be taken up to three times for credit.
(Physical Education)

186 Advanced Rock Climbing. (1) Instruction in advanced rock climbing to include self-rescue techniques, repelling methods, selection of safe climbing sites, and conditioning skills. (Students are responsible for costs associated with the trip.) May be taken up to three times for credit.

193 Advanced Gymnastics. (1) Advanced movement and skill techniques necessary for competition and coaching. May be taken up to three times for credit.

200 Locomotor and Movement Skills and Patterns (3) Provides students with the research and applied practice of motor development from infancy through older adulthood.

210 Health Related Fitness/Swimming. (2) Provides students with the skill and knowledge of fitness and swimming at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. F.

211 Skill Development and Teaching Methods: Gymnastics/Dance. (2) Provides students with the skill and knowledge of gymnastics and dance at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. S.

212 Skill Development and Teaching Methods: Racquetball/Badminton. (2) Provides students with the skill and knowledge of racquetball/badminton at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. F.

213 Skill Development and Teaching Methods: Tennis/Golf. (2) Provides students with the skill and knowledge of tennis/golf at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. S.

214 Skill Development and Teaching Methods: Soccer/Football. (2) Provides students with the skill and knowledge of soccer and football at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. F.

215 Skill Development and Teaching Methods: Basketball/Volleyball. (2) Provides students with the skill and knowledge of basketball and volleyball at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. S.

216 Skill Development and Teaching Methods: Track and Field/Cross Country. (2) Provides students with the skill and knowledge of track and field and cross country at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. S.

217 Skill Development and Teaching Methods: Softball/Baseball. (2) Provides students with the skill and knowledge of softball and baseball at the elementary, middle and secondary levels so that they can plan, implement and evaluate physical education instruction. F.
(Physical Education)

226 Developing Motor Behavior in Children (Pre-School Through Elementary Levels). (3) Foundations and practices in perceptual motor learning; behavioral factors in efficient motor performance, and the effects of growth and development are studied in depth. Materials and methods in the selection and teaching of appropriate activities designed for the primary and elementary level child. Opportunities provided for teaching experiences.

243 Individual and Dual Sports. (3) The mastery of basic skills, materials and methods in the teaching of sports of carry-over value, adaptable to the school or recreational setting. Includes such sports as archery, badminton, bowling and tennis.

300 Outdoor Experiential Education. (3) (Crosslisted with Recreation and Sport Management 300) Lecture and field experiences in organization, administration, and participation in outdoor educational recreational activities. Emphasizes materials and methods on topics such as nature studies (animal life, plant life, ponds, streams), science, arts, crafts and camping. The purpose of this course is the extension of planned learning experiences from the classroom to the outdoor setting.

301 Principles of Coaching. (3) A study of coaching individual, dual and team sports. Includes generic principles of coaching as well as specialization in selected areas. Topics in ethical and legal issues, public relations, recruiting, scheduling, practice, and the psychological aspects of coaching are investigated.

315 Interpretation and Implementation of the Elementary School Physical Education Program. (3) An extensive study of the philosophic and scientific basis of elementary school physical education. Materials and methods focus on topics such as human growth and development, the theory of play, motor learning, fitness programs, lesson planning, use of facilities, and teaching techniques. Application of these skills to be incorporated through peer teaching and a field Practicum. S.

397 Practicum in Coaching. (3) A student may, with the permission of the coordinator of the program, elect to serve as an assistant coach in a sport at a junior or senior high school.

399 Independent Study. (1-3)

400 Measurement & Evaluation in Physical Education. (3) Provides the skills and knowledge for students of physical education to use and interpret a variety of tests used in the field: to develop concepts of construction of new tests, to utilize standardized tests, to develop a working knowledge of statistical techniques used in scoring and interpretation of the tests. F.

401 Kinesiology. (4) Analyzes human movement based on a knowledge of anatomy as applied to the function of the muscular skeletal complex. F, S.

402 Exercise Physiology. (3) Study of the physiological changes which occur in the body during muscular activity. Current research in fitness and test measurements now available in the field. F, S.
Adaptive Physical Education and Recreation. (3) Methods of working with students with special needs within regular physical education classes. Planning, organizing, and implementing adapted physical education learning experiences to meet the needs of special populations. The course has a clinical experience. S.

Prevention and Care of Athletic Injuries. (3) Modern principles and practices in health-related fitness, conditioning and care of injuries. Procedures for care of related injuries. Emergency First Aid and Adult CPR. (Training room observations along with actual game experience). This course includes a fitness assessment for physical education majors.

Advanced Theory and Teaching of Coaching Football. (3)

Advanced Theory and Teaching of Coaching Basketball. (3)

Advanced Theory and Teaching of Coaching Track and Field Events. (3)

Advanced Athletic Training. (3) Course designed to study modern practices in athletic training and care of injuries. Special emphasis on rehabilitation on the injured athlete.

Organization and Administration of Physical Education Recreation, and Athletics. (3) Course designed to introduce the undergraduate student to administrative duties of the physical education teacher, coach, recreation director, and athletic director. Topics of emphasis include organization structures, personnel management, budget planning, risk management, legal considerations, and evaluation for program accountability. F.

PHYSICS (PHYS)

Introduction to Physical Science I. (3) (Prereq: C or above in six credit hours in mathematics or statistics or permission of the instructor) (Coreq: Physics 101L) The course teaches physical principles as they relate to the societal use of energy. The following energy technologies with their associated pollution problems are examined: fossil fuels, heat engines, hydroelectric power, nuclear power, solar power, energy conservation, and small scale energy systems. Three hours lecture per week. F, Su.

Introduction to Physical Science I Laboratory. (1) (Coreq: Physics 101) The laboratory will demonstrate the topics and principles presented in the lecture. Problem sessions and three laboratory hours per week. F, Su.

Introduction to Physical Science II. (3) (Prereq: C or above in six credit hours in math or statistics or permission of the instructor.) (Coreq: Physics 102L) An introduction to physical science including physics, chemistry, geology, and astronomy. Three hours lecture per week. S, Su.

Introduction to Physical Science II Laboratory. (1) (Coreq: Physics 102) The laboratory will demonstrate the topics and principles presented in the lecture. Problem sessions and three laboratory hours per week. S, Su.
201  **General Physics I.** (3) (Prereq: Mathematics 131 with a C or above) (Coreq: Physics 201L) An introductory course for students not preparing for graduate work in physics. Includes a study of mechanics, thermodynamics and acoustics. Three hours lecture per week. F.

201L  **General Physics I Laboratory.** (1) (Coreq: Physics 201) The laboratory demonstrates the topics and principles presented in the lecture. F.

202  **General Physics II.** (3) (Prereq: Mathematics 131 with a C or above; Physics 201)(Coreq: Physics 202L) A continuation of Physics 201 which includes acoustics, wave motion, electromagnetic theory, optics, relativity, atomic and nuclear physics. Three hours lecture per week. S.

202L  **General Physics II Laboratory.** (1) (Coreq: Physics 202) The laboratory demonstrates the topics and principles presented in the lecture. S.

203  **General Physics III.** (4) (Prereq: Physics 202) A continuation of Physics 202 which includes optics, relativity, quantum mechanics, atomic physics and nuclear physics. Six hours lecture, problem sessions and laboratory per week. Offered on demand.

210  **Physics for High School Teachers.** (4) (Prereq or Coreq: One year college physics; be under contract to teach in Horry, Georgetown, or Williamsburg County; and hold a valid South Carolina teaching certificate.) The course centers on mechanics, thermodynamics, wave motion, sound, light, electricity, magnetism, and nuclear physics. Applications emphasize problem-solving techniques. Mathematical concepts are taught on an algebra and simple trigonometry level. Appropriate computer programs are reviewed. Available for teacher recertification credit only. Offered on demand.

211  **Essentials of Physics I.** (3) (Prereq: Math 160 with grade of C or better) (Coreq: Physics 211L) An introductory course for scientists and engineers. This calculus-level course covers classical mechanics and thermodynamics. Three hours lecture per week. F.

211L  **Essentials of Physics I Laboratory.** (1) (Coreq: Physics 211) The laboratory demonstrates the topics and principles presented in the lecture. Three hours of problem sessions and laboratory per week. F.

212  **Essentials of Physics II.** (3) (Prereq: Physics 211 and Math 161 with a grade of C or better) (Coreq: Physics 212L) A continuation of Physics 211. This calculus-level course covers wave behavior, electricity and magnetism. Three hours lecture per week. S.

212L  **Essentials of Physics II Laboratory.** (1) (Coreq: Physics 212) The laboratory demonstrates the topics and principles presented in the lecture. Three hours of problem sessions and laboratory per week. S.
(Physics)

213 Intermediate Modern Physics. (3) (Prereq: Physics 212 with a C or above) (Coreq: Physics 213L). Atomic View of matter, electricity and radiation, atomic models, relativity, x-rays, waves and particles, wave mechanics and radioactivity and nuclear processes. Three hours per week.

213L Intermediate Modern Physics Laboratory. (1) (Coreq: Physics 213) The laboratory will demonstrate the topics and principles presented in the lecture. Three hours per week.

301 Analytical Mechanics. (3) (Prereq: Physics 202 or 212 and Mathematics 161) A rigorous treatment of classical mechanics, including conservation of energy and momentum, rotating reference frames, physics of continuous media and wave motion. Three hours lecture per week.


303 Quantum Mechanics. (3) Principles of quantum mechanics, including operators in Hilbert space, matrix mechanics, angular momentum, spin, perturbation theory, and application. Three hour lecture per week.

310 Mathematic Methods in Physics. (3) (Prereq: Physics 212 and Mathematics 162) Physics applications of vector calculus, infinite series, complex analysis, differential equations, orthogonal functions, integral equations, linear algebra, and calculus of variations. Three hours lecture per week.

321 Electronics. (3) (Prereq: Physics 212 or Physics 202 with permission of instructor) A lab based class for the study of both analog and digital circuit elements, solid state devices, integrated circuits, and basic circuit design. One three hour class per week.

330 Computer Interfacing and Instrumentation. (3) (Prereq: Physics 212 and Mathematics 162) Applications of computers as integrated to scientific instruments, with emphasis on hardware and instrumentation, on-line data acquisition, and computer control of experiments. Students learn and use Labview to interface equipment and control experiments. One three hour class per week.

341 Thermodynamics and Statistical Mechanics. (3) (Prereq: Physics 212 and Mathematics 162) An introduction to thermal physics and statistical mechanics, covering entropy, heat, temperature, the Carnot Cycle, free energy, thermodynamic potential, phase equilibria, and the laws of thermodynamics. The connection between the interactions of single particles and the bulk properties of matter will be developed. Three hours lecture per week.

399 Independent Study. (1-6) (Prereq: Permission of instructor and approved contract) Directed study and/or research on specific topic. F, S.
399H  Interdisciplinary Independent Study. (3-9) (Prereq: Permission of instructor and approved contract) Directed study and/or research on specific topic of an interdisciplinary nature. F, S.

POLITICS (POLI)

101  Introduction to World Politics. (3) Principal forces and factors influencing world affairs, with emphasis on the role of the United States in issues relating to resources, food, arms control, human rights, the environment, rich and poor countries, the development gap and detente.

102  Introduction to World Politics: Regional Perspectives. (3) Principal forces and factors influencing world affairs, with emphasis on the problems and policy perspective of foreign countries and regions.

104  Regional Perspectives: The Middle East. (3) A general introductory study of the Middle East, which considers the geographical implications of the Middle East, the role played by the Islamic religion on political and cultural life, and a brief consideration of the political problems that have troubled this area.

110  The American Criminal Justice System. (3) An introduction to the structure of the law enforcement systems in the United States, from the local and state levels to the federal level. A consideration of the principal issues in law enforcement: arms control, internal security, organized crime and other problems of criminality.

201  American National Government. (3) The formation and development of the national government, its organizations and powers.

300  Introduction to Political Theory. (3) (Writing Intensive) Major themes in political theory, and one basic theme, as treated by three or four of the classical writers. Such matters as political obligation, order and freedom, the state, and justice are assessed to illustrate the enterprise of political theory.

302  Political Thought of Thucydides. (3) (Writing Intensive) (= Classical Studies 302) (Prereq: Politics 300, 301, or permission of instructor). A study of the political thought of Thucydides through an intensive reading of The War of the Peloponnesians and the Athenians.

303  American Government Through Literature and Film. (3) A survey of the various actors, institutions, and processes in the American political system by the use of fiction (motion pictures, novels, and plays). The roles of legislators, the judiciary, chief executives, and the press at the national, state, and local levels of government are included.

304  Latin America Through Film. (3) (Prereq: sophomore standing or permission of instructor) An examination of major topics in Latin American civilization through lecture, reading and writing, and the viewing and critical analysis of feature-length film.
(Politics)

305 **Introduction to Empirical Political Inquiry.** (3) (Prereq: Statistics 201, or Psychology 225, or Business 291 or permission of instructor.) An introduction to modern empirical methodology in political inquiry. A survey of the theoretical foundations of the modern quantitative approach to political inquiry; an introduction to theory building, data gathering, data analysis, data evaluation, and to the writing of a written report.

309 **African-American Political Thought.** (3) (Prereq: Politics 201 and sophomore standing.) A survey of the issues and major figures in the African-American political tradition. Primary writings of selected thinkers, statesmen, or activists such as Frederick Douglass, Booker T. Washington, W.E.B. DuBois, Martin Luther King, Jr., and Malcolm X will be the major focus of the course.

315 **International Relations.** (3) International political behavior and institutions.

316 **Comparative Politics.** (3) Comparative approaches to political systems, behavior and institutions.

317 **Comparative Revolutions.** (3) (Writing Intensive) (= History 317) (Prereq: sophomore standing) Case studies of the classic revolutions (American, French, Russian, and Mexican) and analyses of these and other revolutions as political phenomena. Attention will be given to the political philosophy of revolution.

318 **International Political Economy.** (3) (Prereq: sophomore standing or permission of instructor) Examines the interaction between international politics and international economics.

319 **European Fascism.** (3) (=History 319) A study of the philosophical and historical origins of the European Fascist movements that achieved significance in the twentieth century, followed by a survey of the actual process through which Mussolini’s Fascist Party and Hitler’s Nazi Movement won political power in the respective countries.

320 **Introduction to Latin American Civilization.** (3) (=History 320) (Prereq: sophomore standing or permission of instructor) A survey of Latin American civilization from earliest times through the wars for independence.

321 **State and Society in Modern Latin America.** (3) (=History 321) (Prereq: sophomore standing or permission of instructor) A survey of social, economic, political, and cultural development in Latin America during the nineteenth and twentieth centuries.

341 **Contemporary American Foreign Policy.** (3) (=History 377) A historical and political analysis of twentieth century American foreign policy.

342 **Politics and Governments of Europe.** (3) A comparative study of the individual governments of European societies, their interaction within international organizations like the European Community, and their political development since the end of the Cold War.

343 **Terrorism and Political Violence.** (3) A survey of the historical and ideological origins of selected revolutionary and/or terrorist movements with a consideration of the role played by political violence in modern society.
344  **Politics and Society in the United Kingdom.** (3) A consideration of political and social structures in England, Scotland, Wales, and Northern Ireland (Ulster).

345  **Politics and Governments of the Middle East.** (3) Politics, religion, and conflict in the contemporary Middle East, with emphasis upon the Israeli-Palestinian conflict and the Persian Gulf situation.

346  **The Politics of Central and Eastern Europe.** (3) (=History 327) Political life within and among those states that were once part of the former Soviet Union, as well as the previously Marxist countries of Central Europe.

360  **American Political Parties.** (3) (Prereq: Politics 201 or permission of instructor) A survey of the role of political parties in the American political system. Following an examination of the historical evolution of party systems in the United States, primary attention is given to three aspects of contemporary political parties: the parties as an organization, the party as an electorate, and the party as a governing elite.

361  **American Politics: Interest Groups.** (3) An examination of the role of interest groups in the operation of the American political system, with a particular emphasis on pluralist and elitist theories of democracy.

362  **Mass Media and American Politics.** (3) (Prereq: Politics 201) The development and nature of the mass media; the influence of the media on American culture, politics, and government.

363  **Southern Politics.** (3) Selected political patterns and trends in the eleven states of the American South, focusing on the post-1950 period.

365  **State Government.** (3) A study of state-federal relations, relations among states, state constitutions, and the structure and functions of the three branches of government. Emphasis is given to South Carolina.

370  **Introduction to Public Administration.** (3) A study of the basic principles and theory of administrative structure, responsibility, and control in relation to governmental management.

373  **Public Private Partnerships.** (3) (Prereq: Politics 201) A survey of the various combinations of business and government joint ventures designed to address infrastructure needs and promote economic development. The focus is upon local governmental enterprises, but some attention is given to state and initiatives along with a comparative analysis of other nations’ experiences.

375  **Government and the Economy.** (3) (Prereq: Politics 201) A study of the historical and theoretical relationship between questions of economic policy and the character of the American political order.

397  **Internship in Political Science.** (3) (Prereq: Politics 201) Internships are occasionally available in local, state, or federal government offices. Students may do an internship for academic credit. Grades are determined by two factors:
(Politics)

(1) the evaluation of the internship performance by the contact person in the office, and (2) a report submitted to appropriate faculty member in the department of Politics. Requirements will be specifically stated in a contract to be signed by the student.

399 **Independent Study.** (1-6) (Prereq: Written contract between student and instructor, approved by the Associate Dean, Edwards College of Humanities and Fine Arts. May be repeated for credit under different topics.

401 **History of Political Thought I.** (3) (Writing Intensive) (= Classical Studies 401) (Prereq: Politics 300, 301, or permission of instructor) A study of the history of political thought from Socrates through Aristotle.

402 **History of Political Thought II.** (3) (Writing Intensive) (Prereq: Politics 300, 301, or permission of instructor) A study of the history of political thought from St. Augustine through Hooker.

403 **History of Political Thought III.** (3) (Writing Intensive) (Prereq: Politics 300, 301, or permission of instructor). A study of the history of political thought from Hobbes through Rousseau.

404 **History of Political Thought IV.** (3) (Writing Intensive) (Prereq: Politics 300, 301, or permission of instructor). A study of the history of political thought from Hegel through Nietzsche.

**NOTE:** Any course in the HISTORY OF POLITICAL THOUGHT SEQUENCE (Politics 401-404) may be taken independently of the others.

430 **Ideology and World Politics.** (3) An introduction to the ideological context of world affairs, with attention to traditional democratic, totalitarian and “Third World” development ideologies.

435 **Globalization.** (3) This course will survey the various theories and issues surrounding the process of Globalization and anti-Globalization within the study of International Relations. It will draw on historical, economical, financial, cultural, and political issues-areas of Globalization in a multitude of regions.

440 **South Carolina State Legislative Process.** (1) (Prereq: Politics 201 or permission of instructor) An introduction to the practice of state legislative procedures. Students are required to participate in the South Carolina Student Legislature activity. Students may take the course up to three times for elective credit only. (Pass/Fail grading only)

449 **Constitutional Law I.** (3) (Prereq: Politics 201 or permission of instructor) An investigation of the U.S. Constitutional Principles and the Supreme Court decisions that have shaped the development of the Document.

450 **Constitutional Law II.** (3) A study of judicial review, the political role of the courts, American federalism, the jurisdiction and limitations of the judicial branch, the power of taxation, the commerce power, the substantive and procedural rights of the individual, and the powers of the President.
The Judicial Process. (3) A study of the growth of law, the law-making function of the courts, the structure and organization of federal and state courts, the procedures involved in civil and criminal cases, and the problems and proposals for reform in the administration of justice.

Regulatory Policies. (3) An examination, primarily by the case method, of the law of public offices, the types of powers exercised by administrative authorities, the scope and limits of such powers, including relevant aspects of procedural process of law, and remedies against administrative action.

American Jurisprudence. (3) (Prereq: sophomore standing or permission of instructor) An examination of the approaches and controversies concerning legal interpretation and legal reasoning in the American political order. A major focus of the course is constitutional interpretation. Readings will be drawn principally from the writings of major figures in American jurisprudence.

The Legislative Process. (3) (Prereq: Politics 201 or the permission of instructor) A study of the structure, organization, powers, functions and problems of legislative bodies.

The American Chief Executive. (3) (Prereq: Politics 201 or permission of instructor) The constitutional powers and political roles of the American President with lesser emphasis upon state governors. An analysis of the chief executive and administration, executive relationships with legislatures, and party and popular leadership by the executive.

American Local Government. (3) A study of the powers, organizations, processes, and programs of municipal government, with special emphasis upon government in metropolitan areas.


Politics and Governments of Contemporary Latin America. (3) The development, principles, political thought, and politics of the several Latin American states.

Topics in Government and International Studies. (3) Reading and research on selected subjects in Politics. Open to juniors and seniors with the permission of the instructor. May be repeated for credit under different topics.

Topics in Latin American Politics and Culture. (3) (=History 496) A topical approach to Latin America employing a variety of teaching materials and techniques. Among the topics treated are women and race, recent and contemporary themes in Latin American civilization, political institutions and ideology.
The Discipline of Political Science. (3) (Writing Intensive) (Prereq: completion of 75 credits or permission of instructor) Designed to be the capstone course for students majoring in political science, this course focuses on the nature and development of the discipline of political science. Particular attention is given to controversies concerning the scope and methods of conducting research in political science. Political Science majors should take this course no earlier than the last semester of their junior year. Since the concerns of this course are common to all of the social sciences, the course is open to and recommended for non-majors.

Senior Thesis. (3) A course designed both to assess and improve research skills, writing ability, and general mastery of the field of politics. Under the close supervision of a member of the department, students will review primary and secondary source materials and write one 25-page thesis of graduate school quality.

Contemporary Issues in International Relations. (3) Intensive study of selected current global problems.

American Political Thought. (3) (Writing Intensive) (Prereq: Politics 201 or permission of instructor) An analysis of the chief American political theories from the Colonial period to the end of the 19th century.

International Relations of the Middle East. (3) An examination of the relations among the Middle Eastern states and great power impact on them. Special attention is given to national politics of oil, and pan-Arabism.

International Law. (3) The origin, development and principles of the international law of peace and the enforcement of these principles. The law of war and pacific settlement disputes.

PROFESSIONAL GOLF MANAGEMENT PROGRAM (PGMP)

PGM Seminar I. (1) (Prereq: Acceptance into the Professional Golf Management Program) This seminar focuses on interpersonal skills and golf shop operations. S.

Introduction to Landscape Design. (3) (Prereq: Enrollment in Professional Golf Management Program) Designed to provide knowledge in the areas of identification, nomenclature, characteristics, cultural requirements, and uses of a number of plants...students will learn to identify plants by leaf growth, know major uses, and be familiar with topographic range, as well as principles of design and the application of those principles by developing landscape designs. (Course to be taken through Horry-Georgetown Technical College)

Introduction to Landscape Design Laboratory. (0) (Coreq: Enrollment in Professional Golf Management Program 114) Hands-on laboratory experience to complement material being learned in Professional Golf Management Program 114. (Course to be taken through Horry-Georgetown Technical College)
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>169</td>
<td>Club Management</td>
<td>(3)</td>
<td>(Prereq: Enrollment in Professional Golf Management Program)</td>
<td>A study of management principles and techniques relevant to country clubs and other government, fraternal, health, recreational, and special interest organizations. Course to be taken through Horry-Georgetown Technical College.</td>
</tr>
<tr>
<td>171</td>
<td>Introduction to Turf Management</td>
<td>(3)</td>
<td>(Prereq: Enrollment in Professional Golf Management Program)</td>
<td>Designed to introduce principles of turfgrass management to the student interested in pursuing a career as a general manager or golf professional at a golf course... Topics include turfgrass selection, mowing, fertilization, irrigation, supplementary cultural practices, and management of turfgrass pests. Course to be taken through Horry-Georgetown Technical College.</td>
</tr>
<tr>
<td>180</td>
<td>Internship in Golf Management I</td>
<td>(1)</td>
<td>(Prereq: Acceptance into the Professional Golf Management Program and a GPA of 2.5 or higher)</td>
<td>Full-time supervised work experience at an approved golf course complex working for a Class A Professional Golf Association member... Pass/fail grading only.</td>
</tr>
<tr>
<td>180I</td>
<td>International Golf Internship I</td>
<td>(6)</td>
<td></td>
<td>Designed for students from a foreign country enrolled in the Professional Golf Management Program. Full-time supervised work experience at an approved golf course complex working for a Class A Professional Golf Association member... Pass/Fail grading only.</td>
</tr>
<tr>
<td>201</td>
<td>PGM Seminar II</td>
<td>(1)</td>
<td>(Prereq: Acceptance into the Professional Golf Management Program and successful completion of Professional Golf Management 102)</td>
<td>This seminar will focus on golf club design and repair, teaching golf, tournament operations, rules of golf and golfer development programs. F.</td>
</tr>
<tr>
<td>202</td>
<td>PGM Seminar III</td>
<td>(1)</td>
<td>(Prereq: Acceptance into the Professional Golf Management Program and successful completion of Professional Golf Management 201)</td>
<td>This seminar will focus on customer relations, business planning and merchandising, and teaching golf. S.</td>
</tr>
<tr>
<td>280</td>
<td>Internship in Golf Management II</td>
<td>(1)</td>
<td>(Prereq: Professional Golf Management 180 and a GPA of 2.5 or higher)</td>
<td>Continuation of Professional Golf Management 180... Pass/fail grading only.</td>
</tr>
<tr>
<td>280I</td>
<td>International Golf Internship II</td>
<td>(6)</td>
<td></td>
<td>Designed for students from a foreign country enrolled in the Professional Golf Management Program. Full-time supervised work experience at an approved golf course complex working for a Class A Professional Golf Association member... Pass/fail grading only.</td>
</tr>
<tr>
<td>282</td>
<td>Survey of Food and Beverage Management</td>
<td>(3)</td>
<td>(Prereq: not recommended at the freshman level.)</td>
<td>Provides students with an opportunity to learn concepts and skills related to food and beverage service operations. Class time will be used to present concepts and base knowledge, while lab time will be used to develop actual food preparation skills and food and beverage costing techniques. F, S.</td>
</tr>
<tr>
<td>301</td>
<td>PGM Seminar IV</td>
<td>(1)</td>
<td>(Prereq: Acceptance into the Professional Golf Management Program and successful completion of Professional Golf Management 202)</td>
<td>This seminar will emphasize turf-grass management, business communications, golf car fleet management and teaching golf. F.</td>
</tr>
</tbody>
</table>
(Professional Golf Management Program, Psychology)

302 PGM Seminar V. (1) (Prereq: Acceptance into the Professional Golf Management Program and successful completion of Professional Golf Management 301.) This seminar will emphasize the Model Golf Shop concept that the PGA requires all PGM students to be exposed to. Emphasis will be given to merchandising operations, marketing, budgeting and cost controls, and human resource management. S.

380 Internship in Golf Management III. (1) (Prereq: Professional Golf Management 280, and a GPA of 2.5 or higher) Continuation of Professional Golf Management 280...Pass/fail grading only.

380I International Golf Internship III. (6) Designed for students from a foreign country enrolled in the PGM Program. Full-time supervised work experience at an approved golf course complex working for a Class A Professional Golf Association member...Pass/fail grading only.

480 Internship in Golf Management IV. (3) (Prereq: Admission to the Wall College of Business, Professional Golf Management 380, and a GPA of 2.25 or higher) This internship will extend over two semesters during the student's senior year, and will include weekly classroom instruction in various aspects of golf management...Pass/fail grading only.

PSYCHOLOGY (PSYC)
In order to enroll in any 400 level course students must be admitted to candidacy or obtain permission from the Department Chair.

101 General Psychology. (3) A general introduction to the scientific study of behavior. The theme of basic research will be followed through the study of personality, learning and memory, cognition, developmental, social, abnormal, and the biological bases of behavior, in addition to some other selected topics. F, S.

225 Psychological Statistics. (3) (Prereq: Mathematics 130 or equivalent) An introduction to basic descriptive and inferential statistical procedures and concepts. Topics include measures of central tendency, variation, probability, hypothesis testing, correlation, regression, and chi square. Students may not receive credit for this course if credit has been received from Business Administration 291 or Statistics 201. F, S.

225L Psychological Statistics Laboratory. (1) Exercises and assignments to supplement the material presented in Psychology 225. F, S.

226 Research Methods in Psychology. (3) (Writing Intensive) (Prereq: Psychology 101 and 225) An examination of the wide variety of procedures available to the behavioral scientist for collecting and analyzing behavioral data. Although experimental methods are to be emphasized, other methods such as surveys and questionnaires, interviews, naturalistic observation and case studies are covered. F, S.

226L Research Methods in Psychology Laboratory. (1) Experiments; exercises and assignments to supplement the material presented in Psychology 226. F, S.
299  **Career and Professional Development in Psychology.**  (1) (Prereq: Psychology 101, 225, and/or 226) This course introduces psychology majors to areas of specialization in psychology and career opportunities within the discipline and related disciplines. The course explores the variety of resources available on the Internet and in the University Career Resources Services office that assists students to find a job, enter graduate school, or pursue licensure/certifications, etc., after graduation. Pass/Fail grading only. F, S.

300  **Human Sexual Behavior.**  (3) (Prereq: Psychology 101 or permission of instructor) An examination of the psychological, social, behavioral, and cognitive aspects of human sexuality. Selected topics to be covered are sexual anatomy and physiology, contraception, sexually transmitted disease, sexual variations, commercial sexuality, and sexual violence. Offered on demand.

301  **Psychology of Marriage.**  (3) (Prereq: Psychology 101 or permission of instructor) A survey of the psychological issues related to marriage. Topics include spouse selection, sexuality, child bearing, parenting, divorce, remarriage, and aging. Offered on demand.

302  **Developmental Psychology.**  (3) (Prereq: Psychology 101) A survey of human development from conception through senescence, with attention to the physical, psychological, cognitive, and social characteristics of each state. Students are introduced to research methods used by developmental psychologists and the impact of their findings to everyday life. Offered on demand.

303  **Interpersonal Communication Skills.**  (3) (Prereq: Psychology 101) An in-depth examination of communication processes with a practical emphasis on developing effective listening and speaking skills appropriate to an interpersonal context. Offered on demand.

310  **Psychology of Women.**  (3) (Prereq: Psychology 101) The social, psychological and biological aspects of women’s development are addressed and explored. The changing roles of women, and the impact of these changes upon present day lifestyles are also discussed. Offered on demand.

333  **Health Psychology.**  (3) (Prereq: Psychology 101) A survey course exploring the relationships between behaviors and disease. The influence of psychological factors and precipitating, treating, and preventing disease is examined with the goal of increasing each person’s awareness of individual responsibility in sickness and health. Offered on demand.

340  **Sports Psychology.**  (3) (Prereq: Psychology 101 or permission of instructor) The application of behavioral principles to enhance athletic performance and to promote human enrichment through sport-related activities. Topics studied include personality, attentional mechanisms, anxiety and arousal adjustment, cognitive-behavioral interventions, and motivation. Offered on demand.

399  **Independent Study.**  (1-6) (Prereq: Written contract between student and instructor, approved by the Chair of the Psychology and Sociology Department.) F, S.

400  **Human Learning.**  (3) (Prereq: Psychology 101) In-depth examination of various kinds of human learning, from simple to complex behaviors. Topics include motor learning, verbal learning, attention, memory systems and models, forgetting, problem solving, and learning strategies and sets. Offered on demand.
Cognitive Processes. (3) (Prereq: Psychology 101) Experimental approaches to cognitive processes. Data and theory with respect to attention, information processing and storage, imagery, language, problem solving, creativity, decision making, cognitive development and growth, and concept formation. Offered on demand.

Psycholinguistics. (3) (=English 454) (Prereq: 6 hours of Psychology) A survey of selected aspects of the field focusing on the cognitive and behavioral foundations of child and adult language acquisition. Other topics may include developmental and catastrophic language disorders, neurolinguistics, and the language-thought interaction. Offered on demand.

Principles of Learning. (3) (Prereq: Psychology 101) A survey course covering the basic principles of human and animal learning. Topics include habituation and sensitization, classical and instrumental conditioning, principles of reinforcement, generalization and discrimination, punishment, escape and avoidance learning, basic principles of memory, and behavior modification techniques. Offered on demand.

Abnormal Psychology. (3) (Prereq: Psychology 101) A survey of the historical, social, and cultural implications of abnormal behavior. Topics include the nomenclature used to classify abnormal behavior, etiological factors and treatment procedures. F, S.

Abnormal Behavior in Children. (3) (Prereq: Psychology 101 and junior standing or permission of the instructor) This course examines theories of childhood psychopathology and the classification of childhood disorders. Methods of assessment and treatment for specific childhood disorders are considered. Offered on demand.

Human Neuropsychology. (3) (Prereq: Psychology 101 and junior standing) An in-depth examination of the role of the brain and nervous system in human behavior and psychological disorders. Consideration of the consequences of brain damage and disease in human patients are the focus of the course, but conditions such as depression and anxiety in which there is no obvious brain pathology are also discussed. Offered on demand.

Child Psychology. (3) (Prereq: Psychology 101 and junior standing or permission of the instructor) This course examines principles, theories, and research methods used in the study of child development. Students are introduced to important physical, cognitive, social and personality changes which occur in each of the major stages from conception through the onset of puberty. Hereditary and environmental influences are explored in relationship to current research findings. Offered on demand.

Psychology of Adolescence. (3) (Prereq: Psychology 101) A detailed analysis of the developmental period from puberty to young adulthood, including physical, cognitive, psychological and social factors that influence human growth. Problems and issues unique to adolescents are researched and discussed. Offered on demand.

Psychology of Aging. (3) (Prereq: Psychology 101 or permission of instructor) An overview of the aging process in the adult. The physical, intellectual, social aspects of development will be traced through the major phases of young, middle- and late-adulthood. Offered on demand.
(Psychology)

424  **Psychology of the Mentally Retarded.** (3) (Prereq: A course in the area of child psychology or human development) The nature and varied etiology of mental retardation with attention to assessment, remediation, characteristics, and prognosis. Offered on demand.

425  **Gerontology.** (3) (Prereq: Psychology 423 or permission of instructor) An in-depth analysis of the aging process in late adulthood through death and dying. Psychosocial influences on normal and diseased aging processes will be examined. An emphasis on procedures and strategies for effectively intervening with both well and frail elderly will enable the student to integrate knowledge of gerontology into a disciplinary context. Offered on demand.

428  **Psychology of the Exceptional Child.** (3) (Prereq: A course in the area of child psychology or human development) A survey of gifted, learning disabled, mentally deficient, and sensory or motor handicapped children, including characteristics, etiology, needs, treatment, and guidance. Offered on demand.

430  **Social Psychology.** (3) (=Sociology 320) (Prereq: Psychology 101) An examination of human behavior in social situations. Topics include attitudes and attitude change, affiliation and interpersonal attraction, prejudice, stereotypes, social order, conformity, altruism, territoriality, aggression, competition, cooperation, socialization, and communication. Offered on demand.

440  **Theories of Personality.** (3) (Prereq: 9 credits in psychology or permission of the instructor) A survey of the major personality theories of the “normal” individual as explanations of behavior and human differences. Topics include trait factor theories, psychodynamic theories, social/behavioral theories and humanistic theories. F, S.

450  **Sensation and Perception.** (3) (Prereq: Psychology 101 or permission of the instructor) An in-depth study of each sensory system (orienting, cutaneous and kinesthetic sensitivity, olfaction, gustation, audition, vision). Topics include structures and functions within each system, development of systems, psychological perceptions and sensations, illusions, and interactions between systems. Offered on demand.

460  **Physiological Psychology.** (3) (Prereq: Psychology 101, or Biology 111 or Biology 232, Mathematics 130 and basic high school chemistry are recommended) A survey of the relationships between the nervous system and behavior. Topics include basic neuroanatomy and neurophysiology, signaling and information processing in the nervous system, psychopharmacology, and selected behavioral topics such as biological rhythms, hunger, thirst, learning and memory. Offered on demand.

462  **Animal Behavior.** (3) (Prereq: Psychology 101 or Biology 111) The identification and classification of behavior patterns exhibited by various species of animals and the determination of relationships among behaviors of such species together with their origins and development. Offered on demand.

480  **Intermediate Statistics.** (3) (Prereq: Psychology 225 and Mathematics 130) An examination of additional topics in applied behavioral statistics. Topics
include linear correlation and regression, hypothesis testing, analysis of variance, and multivariate statistics. F, S.

480L **Intermediate Statistics Laboratory.** (1) Exercises and assignments to supplement the material presented in Psychology 480. F, S.

483 **Principles of Psychological Testing.** (3) (Prereq: Psychology 225 or permission of the instructor) A survey of the psychometric process. Topics include the principles of measurement and test score interpretation, discussion of the variety of group and individual tests available for psychologists and the criteria for selecting and evaluating tests. Three lecture hours per week. F, S.

483L **Principles of Psychological Testing Laboratory.** (1) Exercises and assignments to supplement the material presented in Psychology 483. F, S.

484 **History and Systems of Psychology.** (3) (Prereq: at least 9 credit hours in psychology are recommended; Philosophy 101 is also recommended) This course is a comprehensive, in-depth study of approaches and recognized contributors to the scientific study of human behavior. Students are introduced to how and why psychology emerged, and the impact that past contributions have made to present-day status. Offered on demand.

485 **Advanced General Psychology.** (3) (Prereq: Psychology 101, and 15 additional credits in psychology) A survey of the most outstanding and significant facts and principles from various fields in psychology. Topics include psychology as a science, brain and behavior, learning, memory, perception, individual differences, development, personality, psychological and behavioral disorders, therapy, and social psychology. Offered on demand.

486 **Substance Abuse.** (3) (Prereq: Psychology 101 or permission of the instructor) An introduction to research findings and theoretical considerations in the use and abuse of pharmacological agents such as alcohol, barbiturates, narcotics, tranquilizers, and stimulants. Emphasis will be placed upon concepts of diagnosis, treatment, and prevention. Offered on demand.

489 **Special Topics in Psychology.** (3) (Prereq: Permission of the instructor) A topical or research interest not offered in an existing course. Offered on demand.

490 **Internship.** (3) Prereq: Permission of the instructor) Interns work a minimum of 100 hours in an agency, organization, or business that is of interest to the student and/or where students wish to gain practical experience. Students are supervised by a department faculty member and will abide by the procedures outlined in an Internship Agreement. Offered on demand.

495 **Gerontology Internship.** (3) (Prereq: Psychology 423, Sociology 455, and two additional gerontology program courses) The internship, contractually arranged, provides experience working with both well and frail older persons and requires a minimum of 104 hours of active work in an approved agency. The internship is supervised by the program director and an on-site professional with a specialized terminal degree and/or significant demonstrated experience.
Contracts outlining practicum requirements must be written and approved by the 
host agency, the director of the gerontology program, and the dean of the College 
of Natural and Applied Sciences.  F, S.

497  Applied Research in Psychology.  (3) (Writing Intensive) (Prereq: Psy-
chology 101, 225, 226 ) A research experience in which students are required to 
develop a research project, conduct a literature review, gather and analyze data, 
present their research. Motivated students are encouraged to complete this course in their junior year and continue research pursuits during 
their senior year.  F, S.

497L  Applied Research in Psychology Laboratory.  (1) Exercises and as-
signments to supplement the material presented in Psychology 497.  F, S.

498, 499 Individual Research.  (1-3) (Prereq: 15 credits including Psychology 225 and 226) Each student plans and executes one or more original research projects un-
der the instructor’s supervision. Psychology 498 is not prerequisite to 499.  F, S.

RECREATION AND SPORT MANAGEMENT (RSM)

209  Officiating Techniques. (3) An introductory course designed to train students 
in the psychology of officiating, the mechanics, and court positioning necessary 
in officiating intramural-recreational sports. (basketball, soccer, flag football, 
volleyball, softball)

210  Recreational Activities.  (3) An exploration of a variety of activities ap-
propriate for use in any recreational setting. Areas of concentration will include 
music, crafts, nature, special events, fitness, leisure counseling, and socialization. 
Emphasis is placed on the acquisition of activity skills.

242  Introduction to Recreation and Sport Management.  (3) The sig-
nificance and meaning of recreation, leisure, play, and sport in modern society, 
theories of play, models of sport, and the recreational and sport movement in the United States. Role and scope of recreation and sport programs in the community, 
schools, commercial, and industrial settings. Introduction to professional and 
career issues in the field.

300  Outdoor Experiential Education. (3) (Crosslisted with Physical Education 
300) Lecture and field experiences in organization, administration, and participa-
tion in outdoor educational and recreational activities. Emphasizes materials and 
methods on topics such as nature studies (animal life, plant life, ponds, streams), 
science, arts, crafts, camping. The purpose of this course is the extension of planned learning experiences from the classroom to the outdoor setting.

389 Techniques and Methods of Recreational Leadership.  (3) A study 
of effective leadership methods and techniques which are used to motivate the participant.
Program Planning and Promotion for Recreation and Leisure. (3) Planning recreation and leisure programs of activities with emphasis on scheduling, budgeting, risk management, promotion, evaluation and problem solving.

Field Experience in Recreation and Sport. (3) (Prereq: Recreation 242, 390) A supervised practicum in a professional setting; on-site observation in a public, private or commercial setting with experience in all working areas and activities pertinent to that agency.

Orientation to Internship. (1) Plan and prepare for internship in recreation and sport management. Analyze career placement opportunities, the internship process, and associate requirements. For recreation and sport management students only or permission of the instructor.

Independent Study. (1-3)

Principles and Practices in Therapeutic Recreation. (3) An introduction to the realm of leisure-related services offered to those individuals who have special impairments. Students will consider special needs, various settings, and special program designs which contribute to the recovery and rehabilitation of those with handicapping conditions. The role of recreation in patient treatment and support of physical medicine and rehabilitation services is explored.

Special Topics In Recreation and Sport. (2) A practicum dealing with Special Olympics athletes leading to coaching certification in a particular special olympic sport.

Special Populations. (2) A practicum dealing with the aged in which the student works at two senior citizen agencies, planning and conducting recreation activities leading up to participation in the Senior Olympic Games.

Camp Administration. (3) Basic concepts of campsite development, administration and organizational structure, business management, insurance for special groups or special camps, day camping, residence camping, and camp appraisals.

Area and Facility Management in Recreation and Sport. (3) (Writing Intensive) Basic consideration in planning, construction, design and maintenance of sport and recreation areas, facilities and buildings.

Internship in Recreation and Sport Management. (12) (Writing Intensive) Twelve week full-time supervised experience in recreation or sport at a cooperative and approved agency.

RELIGION (RELG)

Biblical History and Literature. (3) A brief introduction to contemporary study of the Bible, its historical background, writing and transmission, its principal persons, events and ideas, and their significance for the present time. F, S.
(Religion, Resort Tourism Management)

102 **Dialogue of Reason and Faith.** (3) Historical and systematic introduction to theology; the search for balance between belief and reason; contemporary developments.

103 **World Religions.** (3) The religious experience of varied persons and groups, East and West, in traditional and contemporary settings.

302 **New Testament.** (3) An historical and critical study of the origin, structure and transmission of the New Testament writings and their meaning in life and thought of the early Church; emphasis is placed on the life, teachings, and significance of Jesus and Paul—both for their day and for ours.

311 **Gospel Traditions.** (3) An analysis of the historical and social setting of the Gospel designed to afford the student a fuller understanding of Jesus and his mission.

312 **The Life and Letters of Paul.** (3) A critical study in the life and thought of Paul, his letters to the early Christian churches, his role in the expansion of the Christian movement, and his continuing influence today.

360 **Women and World Religions.** (3) (Prereq: Religion 103 or permission of instructor) An examination of the historical and social context of issues in religion or sanctioned by religion that are uniquely related to women.

399 **Independent Study.** (3) For more information, see Academic Regulations section in this Catalog. May be repeated for credit under different topics.

399H **Interdisciplinary Independent Study.** (3-9) Directed independent study at the honors level in two or more departments.

451 **New Religious Options in America.** (3) Survey of movements, sects and cults which have appeared as alternatives to established Western religion, including metaphysical movements, sects and cults from the Orient, and counter cultural thrusts.

491 **Selected Topics in Religious Studies.** (3) Course content varies and will be announced in the schedule of courses by suffix and title. May be repeated for credit under different topics.

498 **Advanced Project.** (3) A supervised research project or other creative work, normally taken in the senior year.

**RESORT TOURISM MANAGEMENT (RTMA)**

180 **Guest Services I.** (1) A six month internship experience in the production of core resort destination services, i.e. food, lodging, entertainment/recreation, transportation. This course includes biweekly instruction from faculty and management on topics related to service quality and production.
### Guest Services II.  
(1) A six month internship experience in high customer contact positions in a resort destination area, i.e. front desk, dining/banquet room, ticketing, recreation area. This course includes biweekly instruction from faculty and management on techniques for successful service delivery and guest problem solving.

### Survey of Food & Beverage Management.  
(3) (= Professional Golf Management 282) (Prereq: not recommended at the freshman level.) Provides students with an opportunity to learn concepts and skills related to food and beverage service operations. Class time will be used to present concepts and base knowledge, while lab time will be used to develop actual food preparation skills and food and beverage costing techniques. F, S.

### Tourism Sales.  
(1) (Prereq: Resort Tourism Management 180 and 280) A six month internship experience in resort tourism sales, i.e. conference and meeting sales, room sales, banquet sales, tour/travel sales. This course includes biweekly instruction from faculty and management on sales techniques.

### International Internship.  
(3) (Prereq: completion of 54 semester hours) Internship experience in a tourism-related field conducted in a country other than that in which the majority of the student's academic coursework is completed. S.

### Current Issues in Resort Tourism.  
(3) This course provides future tourism industry leaders with an in-depth understanding of the critical issues currently affecting the tourism businesses operation in resort destinations. Students become familiar with trade literature in the tourism industry.

### Applied Tourism Research.  
(3) (Prereq: completion of 54 semester hours) Cases and projects in tourism management, marketing, and tourism destination planning. This course will include both classroom instruction and field research. F.

### Management Information Systems.  
(3) (= Business Administration 393) (Prereq: Grade of C or above in Computer Science 105 or equivalent and Business Administration 371) A study of the use of information systems in business, emphasis is on the identification of practical, managerial, and ethical dilemma related to the development, implementation, and use of information systems. F, S.

### Real Estate Finance and Investments.  
(3) (= Business Administration 467) (Prereq: Grade C or above in Business Administration 363) Principles and practices in real estate finance focusing on institutions, instruments, and determinants of terms and availability of credit, topic include interest and yield mechanics, cash flow analysis, risk analysis, and various loan strategies or packages.

### Quality Process Management.  
(3) (= Business Administration 474) (Prereq: A grade of C or above in Business Administration 371 and completion of 84 semester hours.) The systematic process through which managers regulate organizational activities to meet planned goals and standards of quality. Topics will include different types of quality control processes, total quality management, product and service quality techniques, and the uses of information technology for insuring quality. S.
Resort Management Training. (1) (Prereq: Resort Tourism Management 180, 280, and 380) A six month internship experience in which the student will participate in compiling and analyzing management reports for a tourism service business. The course includes biweekly instruction from faculty and management in the areas of back-office accounting and supervision in a resort tourism service business.

Seminar in Resort Tourism Planning. (3) (=Business Administration 490) (Prereq: Completion of 84 semester hours) This course examines public policy in tourism destinations. Special emphasis is placed on the interrelationships between tourist demand, tourism information systems, tourism goods and services, and tourism host communities. Students develop plans for a proposed tourism site.

SCIENCE (SCIE)

101 Introduction to Science. (3) (coreq: Science 101L) An introduction to the processes of science for non-science majors using the environment as a basic theme. The course, specifically designed to be the first university-level science course, draws on illustrations from all of the sciences on how to understand science and its integration into students’ lives and careers. Three lecture hours per week. F, S.

101L Introduction to Science Laboratory. (1) (Coreq: Science 101) Experiments, exercises, demonstrations and field experiences emphasizing the topics presented in Science 101. Three laboratory hours per week. F, S.

SOCIOLOGY (SOC)

NOTE: SOCIOLOGY 101 OR 102 IS PREREQUISITE TO ALL OTHER SOCIOLOGY COURSES.

101 Introductory Sociology. (3) An introduction to sociological facts and analysis of group-making processes and products. F, S.

102 Social Problems. (3) Analysis of social structures and processes relating to public issues in contemporary society. F, S.

301 Sociology of Sex Roles. (3) Theories, methods, and substantive issues in a sociological approach to sex roles. Topics usually include sex role expectations and socialization in contemporary societies, subcultural and social class variations and structural and institutional factors. Offered on demand.

305 Sociology of the Family. (3) Sociological perspectives related to various aspects of family behaviors, roles and values. Offered on demand.

307 Sociology of Religion. (3) Sociological perspectives related to various aspects of religious behavior. Includes references to non-Western religions. Offered on demand.
(Sociology)

308  **Community Organization.**  (3) An analysis of formal and informal organizations, the interrelationships among public and private agencies, and means through which community action programs are initiated, coordinated and maintained. Offered on demand.

309  **Social Inequality.**  (3) The course provides a sociological overview of how social inequality occurs, is maintained and challenged, with a primary focus on the intersection of race/ethnicity, gender, and social class. Current and historical trends in inequalities are examined. The social causes of inequalities are analyzed as well as the consequences of inequality for individuals and states. Offered on demand.

310  **Social Demography.**  (3) (Writing Intensive)(Prereq: Sociology 101, Mathematics 130 or equivalent or permission of instructor) Analysis of the theories, methods, issues and data related to the characteristics and dynamics of population. Offered on demand.

310L  **Social Demography Laboratory**  (1) (Coreq: Sociology 310) Exercises and assignments to supplement the material presented in Social Demography.

311  **Sociology of Poverty.**  (3) A sociological analysis of who the poor are with a specific emphasis on rural America. Offered on demand.

313  **Social Welfare and Social Work.**  (3) (Prereq: Sociology 101) Analysis of the theory and process of social services. Emphasis is placed on understanding major social service programs in the United States, their histories, trends, and public policy related to them. Students study specific social welfare programs such as income maintenance programs, social security, nutrition programs and others. The occupation of social work is addressed along with major debates regarding providers and consumers of services. Offered on demand.

320  **Individual and Society.**  (3) (=Psychology 430) (Prereq: Psychology 101) Selected theoretical orientations, methodological procedures and illustrative substantive data pertaining to the relations between the individual and society. Offered on demand.

330  **Sociological Theory.**  (3) Theoretical perspectives on society and social behavior. Offered on demand.

331  **Methods in the Social Sciences.**  (3) (Writing Intensive) Coreq: Sociology 331L (Prereq: Sociology 101 or 102; Psychology 225 or its equivalent) Introduction to the methods and problems involved in designing and conducting research in sociology and related fields. S.

331L  **Methods in the Social Sciences Laboratory.**  (1)(Coreq:Sociology 331) Exercises and assignments to supplement the material presented in Sociology 331.

350  **Juvenile Delinquency.**  (3) The causes and consequences of juvenile delinquency and the study of the juvenile justice system. Offered on demand.
353  **Sociology of Crime.** (3) Social factors in the development, identification, and treatment of criminals. Offered on demand.

355  **Minority Group Relations.** (3) (Anthropology 355) Theories, methods, and substantive issues in the study of majority-minority group relations with an emphasis upon racial and ethnic differentiation. Offered on demand.

360  **Sociology of Medicine and Health.** (3) (Prereq: Sociology 101 or permission of instructor) The course acquaints students with a sociological analysis of health, illness, and the care system. Examples of topics covered include sociological variables in relationship to patterns of illness, models of illness behavior, analysis of the contemporary care system including reimbursement patterns, and socio-economic and political critiques of contemporary issues in medicine and health. Offered on demand.

399  **Independent Study.** (1-6) (Prereq: Written contract between student and instructor, approved by the Chair of the Psychology and Sociology Department) Offered on demand.

400  **Sociology of Small Groups.** (3) (Prereq: Nine hours of Sociology or permission of instructor) Conceptual, analytical, empirical and substantive issues in the sociological study of small groups. Topics include: theoretical models of small group structures, functions, and processes; methods of small group research; power, leadership, conflict, conformity and decision-making in small groups. Offered on demand.

450  **Victimology.** (3) (Prereq: Sociology 101 or consent of the instructor) Examination of sociological theories, research, and methodologies in the study of victims and analysis of the growth and institutionalization of victim advocacy. Offered on demand.

454  **Sociology of Death and Dying.** (3) This course focuses on the social construction of dying and death in our society as well as the ways societal expectations, values, and norms influence practices and beliefs about death.

455  **Sociology of Aging.** (3) Analysis of aging as a problem of socialization and the status of older people in society, their roles in the community, demographic aspects of aging, and the impact of aging upon social institutions. Offered on demand.

457  **Aging and Social Policy.** (3) (Prereq: Sociology 101, Psychology 101, or permission of instructor) The development of public policy related to aging. Basic policy concepts, models, and methodology along with specific issues of the elderly. Offered on demand.

460  **Sociology of Mental Health.** (3) Social factors in the development, identification and treatment of mental illness. Offered on demand.

465  **Sociology of AIDS.** (3) (Prereq: Sociology 101 or 102, courses in statistics, research methods, computer usage--these courses may be waived by the instructor) A seminar for advanced undergraduates, this course involves student research on...
(Sociology, Spanish)

HIV/AIDS transmission, incidence, prevalence, and prevention worldwide and analyzes HIV/AIDS within the framework of social stratification, social movements, social deviance, social control, and international development. Offered on demand.

480 Environmental Sociology. (3) (Prereq: Sociology 101 or 102 and junior standing or permission of instructor) The course examines key issues in the relationship between society and the natural environment. The primary focus is on social structural and cultural factors behind environmental and resource problems. Attention, however, is also given to social consequences of environmental degradation (e.g., social and economic disruption) and to social responses to environmental and resource problems (e.g., change in culture/attitudes about environmental issues, the environmental movement, community mobilization against threats).

497 Senior Thesis. (3) (Prereq: senior standing, Sociology 330 and Sociology 331) Each student plans and executes an original research project under a sociologist’s supervision. Offered on demand.

498 Topics in Sociology. (3) Reading and research on selected subjects in sociology. Open only to juniors and seniors with the permission of the instructor. Offered on demand.

499 Internship. (1-6) (Writing Intensive) (Prereq: The internship requires 90 or more hours of collegiate credit with a GPA of 2.5 or better; formal application with a resume, and a contract among the Internship agency, the student, and the department. The application process must be completed by the last day of classes of the semester prior to the internship. Interns work a minimum of 100 hours in a human services, governmental, research, or criminal justice agency and write a paper analyzing their work experiences. Offered on demand.

SPANISH (SPAN)

110 Introductory Spanish I. (3) Fundamentals of the language through aural comprehension, speaking, reading and writing. F, S.

111 Introductory Spanish I-III(Intensive). (3) Fundamentals of the language through aural comprehension, speaking, reading, and writing, equivalent to Spanish 110-120. Intended for students with two years of high school Spanish with an average of B or better, or by placement.

120 Introductory Spanish II. (3) (Prereq: Spanish 110 or by placement) A continuation of Spanish 110. Fundamentals of the language through aural comprehension, speaking, reading and writing. F, S.

130 Introductory Spanish III. (3) (Prereq: Spanish 120, 111, or by placement) Further development of fundamental language skills (listening, speaking, reading, and writing), with additional consideration of culture. F, S.
210 **Conversation/Composition I.** (3) (Prereq: Spanish 130 or by placement) Develops an intermediate proficiency in Spanish and an appreciation of Hispanic cultures through practice in the use of the basic language skills: speaking, reading, writing, and listening comprehension. Emphasis on the expansion and refinement of oral and written skills. Reading and discussion of a variety of literary and nonliterary texts of appropriate difficulty. Grammar review. Required for work in upper level language, literature, and culture courses.

211 **Conversation/Composition II.** (3) (Prereq: Spanish 130 or placement) This course continues and complements the first semester intermediate level Spanish (Spanish 210; Conversation/Composition I). Further expansion of language skills and appreciation of Hispanic cultures. Additional emphasis on grammar review in preparation for work in upper-level courses. F, S.

320 **Spanish for the Professions.** (3) (Prereq: Spanish 210) Study of the applied nature of the language focusing on the cultural aspects and specialized vocabulary of a given professional field. Emphasis on developing skills to ask and answer questions relating to a particular professional field, drafting relevant documents, and describing events that may arise in the practice of the profession. The following are among the possible professional fields on which the course will focus: a) Spanish for Business; b) Spanish for Health Professions; c) Spanish for Public Safety; d) Spanish for the Travel and Tourism Industry. Even Years.

321 **Conversations on Hispanic Current Events.** (3) (Prereq: Spanish 210) This course is designed to promote an active command of the language and an appreciation of the cultural diversity of the Spanish-speaking world. Topics that emerge from the media serve as a basis for conversations, class presentations, and essays. Even years.

322 **Latin American Literature in Translation.** (3) (= English 322) (Prereq: For Spanish credit: Spanish 210) (Writing Intensive) Selected readings of Latin American Literature in translation. Students write primarily critical essays. All readings are in English. Even Years.

323 **Spanish for Business and Tourism.** (3) (Prereq: Spanish 210) This course provides students with linguistic skills necessary to discuss business concepts and the tourism industry in Spanish. Emphasis is placed on developing the four basic language skills (listening, speaking, reading, and writing) in the context of business situations. Special consideration is devoted to acquiring an appreciation and understanding of Hispanic culture in the business world. Even years.

330 **Approaches to Literature and Culture.** (3) (Prereq: Spanish 210) Introductory studies in the literature and cultural manifestations of the Hispanic world. Authors, genres, or cultural expressions may vary. Emphasis on the continued development of oral, reading, and writing skills. Even years.

333 **Topics in Language, Literature, and Culture.** (3) (Prereq: Spanish 210) Selective study of topics in the language, literature, and culture of Latin America and Spain. Class format includes reading assignments, lectures, discussion, oral and written reports. Topics vary. Even years.
Hispanic Culture and Civilization. (3) (Prereq: Spanish 210) A study of the historical development and various cultural manifestations of the Spanish, Latin American, and contemporary Hispanic civilization. S.

Spanish Language Study Abroad. (3-6) (Prereq: Approval of Foreign Language faculty) Language study abroad with instruction by native speakers. Credit hours granted dependent on the number of hours taken. Upon successful completion of an approved program students must furnish a certificate and/or examination results. Prior consultation with the Department of Foreign Languages is mandatory before enrollment.

Spanish Internship Program. (3) (Prereq: Spanish 210) This internship course of study is intended to put the student in direct contact with the spoken language and provide practical experience of its various applications. Students may select from one of three options: a) an internship with a local business or public agency that works with Spanish-speaking clients; b) a work teaching practicum with selected high-school or university faculty; c) an internship in Spanish-speaking countries in industry, schools, or public institutions. The course of study of all options will be supervised by designated faculty.

Studies in Hispanic Poetry. (3) (Prereq: Spanish 210) (Writing Intensive) Selected topics in Hispanic poetry. This course is designed to develop students' appreciation of poetry and to develop critical approaches to poetic texts. Periods covered may include the following: Renaissance and Baroque Poetry of Spain, Modern Spanish Poetry, and Poetry of Latin America from Modernism to the present. Even Years.

Studies in World Film. (3) (=English 380, Theater 380) This course is a survey of world film with an emphasis on Hispanic cinema. It provides a general introduction to contemporary film-critical discourses which are currently under the rubric of film semiotics. Key elements of the language of cinema are studied with the goal of developing both critical and creative skills.

Independent Study. (3) (Prereq: A written contract between students and instructor for a special topic dealing with Spanish language or culture, and approved by the Dean of the College of Humanities and Fine Arts) May not be used to satisfy the Spanish Minor Core.

Spanish Peninsular Literature. (3) (Prereq: Spanish 210 or equivalent) A survey of the major literary works of Spain from the Middle Ages through the twentieth century.

Spanish American Literature. (3) (Prereq: Spanish 210 or equivalent) A survey of the major literary works of Spanish American from pre-Columbian times through the twentieth century.

Spanish Linguistics. (3) (Prereq: Spanish 210 or equivalent) Study of modern Spanish with attention to the application of linguistic theory to the effective teaching of Spanish.

Teaching of Spanish. (3) (Prereq: Permission of the Department) Study of the latest methodologies, theories, and materials for teaching modern languages.

Capstone: Advanced Topics in Literature and Culture. (3) (Prereq: Spanish 210 or equivalent; Junior standing or above) (Writing Intensive) Intensive study and analysis of a notable author or authors, literary trends or selected cultural topics. Emphasis may be placed on one or more of the various forms of artistic, cultural or linguistic expressions. Consolidate and further the skills developed in the Spanish major. Even years.

SPECIAL EDUCATION - LEARNING DISABILITIES (EDLD)

Introduction to Special Education. (3) A survey course with an overview of the field of special education and different areas of exceptionalities with an emphasis on learning disabilities and current trends. Basic course for those beginning study in the field of special education. Clinical experiences in schools are included.

Education and Family Social Dynamics. (3) An investigation of the learning disabled individual and the family setting with special attention given to the impact that learning disabilities may have on family structure and behavior.

Models of Planning and Management for Collaborative Practice, Pre K-12. (3) Study of the design and implementation of curriculum programs for individuals with learning disabilities with emphasis on managing and enhancing the instructional environment in both resource and classroom settings; special attention given to working collaboratively with other professionals and parents; the development and use of IEPs, accountability procedures, and documentation requirements are addressed. Clinical experiences in schools are included.

Methods for Students with Language and Social Learning Disabilities, Pre K-12. (3) An investigation of various elements in the language and social development of individuals with learning disabilities; special focus given to the implementation of effective strategies to address language and social learning disabilities. Clinical experiences in schools are included.

Materials and Methods for Teaching Reading, Pre K-12. (3) Study of reading development and effective instructional methodologies used in reading instruction specific to students with learning disabilities; emphasis given to reading practices as they relate to individual learners, readiness activities, decoding skills, vocabulary development and comprehension. Clinical experiences in schools are included.
(Special Education, Statistics)

419 Advanced Methods and Assessments for Students with Reading and Language Arts Disabilities, Pre K-12. (3) (Prereq: Special Education-Learning Disabilities 417) In-depth analysis of concepts and skills of the school reading and language arts curriculum. Specific methods designed to facilitate the development of reading and language arts skills for students with learning disabilities are emphasized.

422 Materials and Methods of Teaching Mathematics, Pre K-12. (3) Basic study of methods and materials for the teaching of mathematics to students with learning disabilities through the K-12 grade span.

423 Advanced Methods and Assessments for Students with Mathematics and Problem Solving Disabilities, Pre K-12. (3) (Prereq: Special Education-Learning Disabilities 422) In-depth analysis of concepts and skills of the school mathematics curriculum. Specific methods designed to facilitate the development of mathematical concepts and skills for students with learning disabilities are emphasized.

440 Managing the Curriculum and Learning, Pre K-12 Learning Disabilities. (3) Study of curriculum and management practices through the K-12 grade span specific to working with students with learning disabilities; special attention given to issues of classroom management strategies. Clinical experiences in schools are included.

444 Instructional Theory and Practice - Learning Disabilities. (3) Application of teaching models as they apply to working with students with learning disabilities. Students will be expected to demonstrate a variety of instructional competencies during supervised teaching situations in simulated settings and in school classrooms. Clinical experiences in schools are included.

477 Research, Trends and Issues in Learning Disabilities. (3) (Coreq: Special Education-Learning Disabilities 478) Investigation of current research, trends and issues that impact the planning and performance of programs and instruction for individuals with learning disabilities.

478 Internship in Learning Disabilities. (12) Supervised teaching experience with learning disabilities students. Interns will be assigned to clinical placements for a period of no fewer than 60 instructional days.

STATISTICS (STAT)

201 Elementary Statistics. (3) (Prereq: Mathematics 130 or 130I; Coreq: Statistics 201L) An introductory course in the fundamentals of modern statistical methods. Topics include descriptive statistics, introduction to probability, random variables and sampling distribution, linear regression and correlation, testing of hypothesis concerning one and two population samples, confidence interval estimation of parameters and introduction to one way ANOVA (analysis of variance). Primarily for students in the field of science who need basic knowledge of statistics. Students may not receive credit for this course if credit has been received from
any of the following courses: Business Administration 291, or Psychology 225. Three lecture hours per week. F, S, Su.

201L **Elementary Statistics Computer Laboratory.** (1) (Coreq: Statistics 201) The computer laboratory involves exercises and/or lectures accompanying Statistics 201. Students will use various statistical software. Laboratory exercises are designed to analyze data using appropriate tests/methods introduced in Statistics 201. F, S, Su.

315 **Statistical Methods I.** (3) (Prereq: Statistics 201) Sampling methods in statistics. Study of correlation, linear, multiple and nonlinear regression techniques. Analysis of data and computer applications. S.

316 **Statistical Methods II.** (3) (Prereq: Statistics 201) Analysis of variance methods, experimental design techniques and analysis of covariance.


399 **Independent Study/Internship in Statistics.** (3) (Prereq: Statistics 412) Directed study of specific topics or supervised work as part of an approved internship. F.

412 **Statistical Inference I.** (3) (Prereq: Mathematics 260) Sample spaces, probability, random variables, distributions. S.

413 **Statistical Inference II.** (3) (Prereq: Statistics 412) Point and interval estimation, tests of hypothesis, limiting distributions, order statistics. F.

418 **Biostatistics.** (4) (=Biology 418) (Prereq: Statistics 201/201L) Mathematically sophisticated presentation of principles and methods of data description: graphics, point and interval estimation, statistical testing, relative risk, odds, ratio, goodness of fits, ANOVA, design of experiments. Three lecture and three laboratory hours per week. F.

419 **Actuarial Mathematics I.** (3) (Prereq: Statistics 412) Survival distributions and life tables, life insurance, annuities, benefit analysis risk theory. Offered on demand.

420 **Statistical Computing.** (3) (Prereq: Statistics 412) Random number generation, Monte-Carlo simulation techniques, statistical programming, introduction to statistical packages, computing on the internet. S, odd years.
(Success Seminars)

SUCCESS SEMINAR FOR BUSINESS MAJORS
(SSBN)

195 Success Seminar for Business Majors. (3) (Prereq: first or second semester freshman) An orientation course for first-year students interested in business. Emphasis is given to academic performance issues, an integrated view of key business functions, and individual financial planning topics. F, S.

SUCCESS SEMINAR FOR ENGLISH MAJORS
(SSEN)

195 Success Seminar for English Majors. (3) (= English 110) (Prereq: A grade of C or above in English 101 or its equivalent) A seminar on strategies for academic success and career exploration. Required of all English Majors the first spring semester the major is declared or the student transfers from another institution. S.

SUCCESS SEMINAR FOR GOLF MANAGEMENT MAJORS (SSPG)

195 Success Seminar for Golf Management Majors. (1) (Prereq: Acceptance into the Professional Golf Management Program and open to freshmen only) Designed to introduce students to various topics in golf, including career opportunities in the industry. Study skills, time management, and academic issues are discussed. Pass/fail grading only. F, S.

SUCCESS SEMINAR FOR RESORT TOURISM MANAGEMENT MAJORS (SSRT)

195 Success Seminar for Resort Tourism Majors (3) (Prereq: Restricted for freshmen only enrolled in the Resort Tourism Management Program) Provides an introduction to the resort tourism industry. Students will study various careers in the tourism industry and will review an in depth case study of a successful hospitality firm. F.

SUCCESS SEMINAR FOR SCIENCE MAJORS
(SSSC)

195 Success Seminar for Science Majors. (1) Designed to enhance the first-year experience of students interested in science. Focuses on developing critical thinking skills, improving written and oral communication skills, setting personal and academic goals, developing structured and consistent study habits, practicing effective time management, introducing campus resources, and exploring applications of the scientific method. F, S.
SUCCESS SEMINAR FOR UNDECLARED MAJORS (SSUN)

195 Success Seminar for Undeclared Majors I. (1) Designed to enhance the first-year experience of students who have not declared a major. Focuses on developing critical thinking skills, improving written and oral communication skills, setting personal and academic goals, developing structured and consistent study habits, practicing effective time management, and introducing campus resources. F.

196 Success Seminar for Undeclared Majors II. (1) Designed to further enhance the first-year experience of students who have not declared a major by providing heavy emphasis on major and career exploration. S.

SUCCESS SEMINAR FOR UNIVERSITY SUCCESS PROGRAM (SSUS)

195 Success Seminar for University Success Program. (3) Designed to assist students admitted through the University Success Program in achieving academic success during the first year of college. Focuses on developing critical thinking skills, improving written and oral communication skills, setting personal and academic goals, developing structured and consistent study habits, practicing effective time management, and introducing campus resources. F, S.

THEATER (THEA)

101 Introduction to Theater Art. (3) Understanding and criticism of dramatic literature, history, and production.

140 Oral Communication. (3) The theory and practice of interpersonal, small group, and public oral communication, to include performance by students. F, S, Su.

140E Oral Communication for Education Majors. (3) Theory and practice in developing communication competencies in an academic setting. Preparation and presentation of various instructional strategies for diverse audiences.

154 Introduction to Costuming. (3) Basic principles of costume design and construction and survey of selected historical periods in costume history. Costume design project and production experience.

155 Stagecraft. (3) A beginning course in the principles and practice of stagecraft.

170 Acting I. (3) The terminology and basic tenets of acting. The work includes a monologue, scene study, theater games and improvisation, and physical and vocal warm-ups.

171 Stage Auditions. (1) A beginning study of audition methods, including material selection, role preparation, and casting presentation.
(Theater)

172 Basic Stage Makeup. (1) The study and application of the principles of the art of make-up for the theater.

174 Dance for Musical Theater I (Ballet Emphasis). (2) The study and application of the fundamental principles of ballet.

220 Theater Laboratory. (1) Supervised participation in theater production. No formal class meetings. May be repeated for credit, but no more than four credits may be applied toward the departmental major. F, S.

221 Laboratory, Musical Theater Performance (1) Supervised performance in musical theater production or music ensemble.

230 Complete Stage Makeup. (3) An introduction to the complexities of makeup, this course is specially designed to require the student to become familiar with basic makeup procedures and complex prosthetic makeup application, and will culminate in the student’s application in his or her projects.

240 Voice and Diction. (3) The analysis, evaluation, and improvement of speech through a study of the anatomy and physiology of the vocal mechanism, voice production, and articulation. Students will learn the International Phonetic Alphabet as a means of improving diction.

276 Dance for Musical Theatre II (Jazz Emphasis). (2) (Prereq: Theater 174 or consent of instructor) The study and application of the fundamental principles of jazz dance.

278 Dance for Musical Theatre III (Tap Emphasis). (2) The study and application of the fundamental principles of tap dance.

280 The Film Experience. (3) Introduction to the techniques and theory of feature, documentary, and experimental films. Screenings, discussions, and critiques.

322 Creative Dramatics. (3) The study and practice of theater games and exercises as a means of learning to lead groups of all types and ages in an ensemble activity, including keeping a record of target group activities.

330 Play Production. (3) (Prereq: Theater 155 and Theater 170) Aspects of production and direction for the theater including principles of stage management and beginning directing techniques.

334 Small Group Communications. (3) (Prereq: Theater 140 or English 390) The study and practice of small group communications through creative approaches to problem solving.

340 Oral Interpretation of Literature. (3) A course designed to give an understanding of the principles involved in extracting meaning from the printed page and the oral presentation of that meaning in a lucid and stimulating manner.
Advanced Public Speaking. (3) (Prereq: Theater 140) Analysis and advanced applications of public discourse and discursive strategies with emphasis on speech structure and delivery methods.

Theater Design I. (3) (Prereq: Theater 155 or equivalent) Basic scenographic studies of set design, lighting and costumes including preparation of ground plan, perspective drawing, and model building.

History of the Theater I, II. (3, 3) (361 = Classical Studies 361) A survey of plays, playwrights, actors, production, and the physical development of theaters; reading of representative plays required. 361: from the time of the Greeks to 1660; 362: from 1660 to present.

Musical Theater History. (3) A survey of the playwrights, composers, directors, choreographers, performers, and productions of the American musical theater from its European beginnings to the present; specific works are studied.

Acting II. (3) (Prereq: Theater 170) Monologue and scene study in contemporary drama and exploration of character development.

Movement for the Actor. (3) (Coreq: Theater 170) An introduction to current ideas in movement theory and basic physical skills needed for acting. Topics include Laban, Alexander technique, yoga, physical approaches to character, and basic unarmed stage combat.

Dance for Musical Theatre IV (Styles). (3) (Prereq: Theater 174, 276, and 278 or consent of instructor) The study and application of the choreographic styles of several leading Musical Theatre choreographers as well as student practice in choreography for the Musical Theatre. Course may be repeated as an Elective or Emphasis.

Studies in World Film. (3) (= English 380, Spanish 380) This course is a survey of world film with an emphasis on Hispanic cinema. It provides a general introduction to contemporary film-critical discourses which are currently under the rubric of film semiotics. Key elements of the language of cinema are studied with the goal of developing both critical and creative skills.

Modern British and American Drama. (3) (=English 381) A critical and historical survey of the development of British and American drama from the eighteenth century to the present.

British Theater. (3) Students attend a normal class schedule before Spring Break which includes lectures and presentations on the historical and current theatre scene in England. The class will travel to England to see plays during Spring Break.

New York Theatre Experience. (3) A critical and historical survey of New York Theatre, from the earliest record to the present, culminating in a trip to New York City during Spring Break to see plays and sites of related interest. Modern and contemporary New York Theatre will be emphasized.
Independent Study and Research. (3) For information, see Academic Regulations section. May be repeated for credit under different topics.

World Dramatic Literature. (3) (=English 425) (Prereq: English 275, 276, 287, or 288) A critical and historical survey of the cardinal works of dramatic literature across the epochs of theatrical performance. The course accents analysis and interpretation.

Theater Management. (3) (Prereq: Permission of instructor) Problems involved in organizing, administering, and promoting the non-professional theater.

Vocal Production for the Actor. (3) (Prereq: Theater 240) The study and application of skills which develop a strong and versatile speaking voice for the stage. Drawing on the theories of Lessac, Linklater, Skinner, and Berry, students will identify and correct vocal problems through breathing and projection exercises and warm-up techniques. Study includes accents, dialects, and vocal drills. Knowledge of the International Phonetic Alphabet is required.

Theater Design II. (3) (Prereq: Theater 155 or permission of instructor; Theater 353) Advanced scenographic studies of set design, lighting, and costumes including design participation in a departmental production.

Acting III. (3) (Prereq: Theater 370 or permission of instructor) An exploration through scenes and monologues of styles of acting in period plays. This course includes approaches to text analysis of Shakespeare’s plays.

Play Direction I. (3) (Prereq: Theater 330) A study of the principles, procedures, and practice of stage direction, with the selection, analysis, casting, and rehearsal of a one-act play to be presented in the laboratory theater.

Play Direction II. (3) (Prereq: Theater 478) A continuation of Theater 478.

Musical Theatre Capstone. (3) (Prereq: Successful keyboard proficiency exam) In the final semester, each student will plan and execute a project which demonstrates significant proficiency in singing, dancing, and acting. Supervised by a member of the Performing Arts Faculty, the project will incorporate research, documentation, an audition portfolio, and a public performance.

Theater Capstone Project. (3) (Prereq: Theater 478) Each student will plan and execute a project which demonstrates a significant proficiency in one or more theatrical elements. Supervised by a member of the theater faculty, the project will incorporate research, documentation, and a public exhibition.
UNIVERSITY (UNIV)

100 Seminar in Leadership Development. (2) Leadership and organizational theories, leadership styles, decision-making techniques, service learning, team building and communication skills with an opportunity to apply learning during class discussions and activities.

150 Career Exploration. (3) This course is designed to provide the student with the skills necessary to make effective career decisions. A realistic assessment of self, identification of possible career fields and occupations, and methods of developing and implementing a plan of action will be emphasized.

200 Student Media Production. (1) Supervised participation in the production of student media, including the student newspaper, magazine, or literary journal. This course may be repeated for credit, but no more than 8 total credits from University 200 may be applied toward a degree.

300 Principles of Peer Mentoring. (1) (Prereq: Acceptance into Peer Mentor Program and permission of instructor). This interactive course focuses on the study of issues, topics, and strategies related to mentoring first-year students at the University. Relevant student development theory is highlighted. This course prepares Peer Mentors to co-teach a section of a success seminar in a subsequent Fall Semester. S.

301 Applied Principles of Peer Mentoring. (2) (Prereq: Completion of University 300 and permission of instructor). This course is designed to offer academic credit to Peer Mentors who spend eight to ten hours each week co-teaching a section of a success seminar with a faculty member, planning course content, meeting with first-year students and other course-related responsibilities determined by the Faculty Mentor or Peer Mentor Coordinator. This course specifically addresses topics and issues directly related to teaching and mentoring first year students in the success seminars. F.

399 Independent Study. (1-6) (Prereq: Admission into the Interdisciplinary Studies Program or permission of the Director of Academic Advising.) Written contract between student and instructor and approval by the appropriate dean or director.) Directed study and/or research on a specific topic.

498 Interdisciplinary Studies Senior Seminar. (3) (Prereq: Admission into the Interdisciplinary Studies Program and permission of the Director of that program.) Capstone course required of all Interdisciplinary Studies students for graduation. Students plan and complete an original research project under the guidance and supervision of the instructor. The topic selected must be related to the student's Interdisciplinary Studies area of emphasis. Seminar sessions focus on the principles, procedures, and problems of executing a senior-level research project. Students present project results in both written and oral form.
(Women's Studies)

**WOMEN’S STUDIES (WOST)**

103  **Introduction to Women’s Studies.** (3) An exploration of such issues as work, love, child-rearing, and other bio-cultural markers of women’s lives through voices of individuals from a variety of cultures.

365  **Women and Media** (3) This is a survey course about the history of women’s roles in the media, their contributions, employment, and media effects on women.

495  **Women's Studies Internship** (3) The guided internship requires 120 to 140 hours of on-site work; a journal; and a final paper. The purpose of the course is to provide students with practical application opportunities for their knowledge and skills, to introduce them to local and regional employers in their field of study, and to enhance networking opportunities.

498  **Women Knowing; Knowing Women.** (3) (Prereq: nine hours of minor-designated courses, including Women’s Studies 103) A capstone course for the Women's Studies minor, which will present issues of gender, culture, and society as viewed through the framework of feminist theory.