

COURSE	TITLE	COURSE DESCRIPTION
AN-00X	ANTHROPOLOGY EXIT INTERVIEW	
AN-101	INTRODUCTION TO ANTHROPOLOGY	This course presents an introduction to anthropology as a holistic discipline that studies the human condition across space and time, employing comparative and evolutionary perspectives. Students will develop a fundamental grasp of the principles, methods and theories that define each of the four fields of anthropology as well as appreciation of how the discipline offers tools for a holistic study of the human condition. Typically offered fall semester. Three credits.
AN-101F	INTRODUCTION TO ANTHROPOLOGY	FIRST YEAR SEMINAR. This course presents an introduction to anthropology as a holistic discipline that studies the human condition across space and time, employing comparative and evolutionary perspectives. Students will develop a fundamental grasp of the principles, methods and theories that define each of the four fields of anthropology as well as appreciation of how the discipline offers tools for a holistic study of the human condition. Typically offered fall semester. Four credits.
AN-221	BIOLOGICAL ANTHROPOLOGY	This course explores human biological origins, evolution and variation through the application of evolutionary theory and examination of the fossil record. Topics include primatology, paleoanthropology, ecology, forensic anthropology, evolutionary medicine, genetic variation of living populations and evolutionary origins of human behavior. (Occasional offering.) Three credits.
AN-222	CULTURAL ANTHROPOLOGY	This course explores the concept of culture as an integral part of the human experience. We will explore the many facets of culture, including marriage and kinship and religion and ritual. We will examine the myriad ways in which humans organize and sustain themselves and examine concepts of gender, race and ethnicity. We will explore how an anthropological perspective can be applied to understand and solve human problems. Typically offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AN-225	ANTHROPOLOGY AND WORLD ART	<p>What is art? What counts as art, and how and why is it designated so? Why do humans create art? Is there a universal aesthetic? These are questions we explore in this course. We begin by examining the evolutionary foundation of appreciation for aesthetics and capacity for creative expression in Homo sapiens. We then explore, from an anthropological perspective, the creative urge that is a human universal. We consider the question, “What is art?” and seek answers from a number of societies and perspectives. We examine a broad range of material and social functions of art and contemplate the symbolic character of artistic expression and then explore the worlds of artists themselves, examining their position in and relationship to society and how they often simultaneously embody and transcend traditional social expectations. We will also consider issues such including the integration of art from small scale societies into global markets and the impact of tourism on local art practices. (Occasional offering.) Three credits.</p>
AN-230	ARCHAEOLOGY	<p>This course provides an overview of the field of archaeology. Through the exploration of numerous archaeological case studies, we learn about the methods and theories that archaeologists use to study and recreate the story of past humans through an examination of the materials they left behind. We also examine the ethical and legal issues inherent to uncovering the past, particularly with regards to the handling of human remains. Typically offered every other spring semester (odd-numbered years). Three credits.</p>
AN-250	BIBLICAL ARCHEOLOGY	<p>Biblical Archaeology is the process of correlating archaeological evidence with the Biblical record in order to illuminate the Biblical text. Topics covered include the environment, material culture, social organization, chronology and events of the Syro/Palestinian/Egyptian Middle East – the context within which the Bible took its oral and written form. Some background in anthropology/archaeology and Bible studies is expected and most helpful. Occasional offering. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
AN-255	CULTURES OF THE BIBLE	The people of the Bible lived in an environmental and cultural setting very different from that of modern times. Using a variety of frameworks and sources from archaeology and cultural anthropology, this course will examine how Biblical narratives take place within social, economic, political and ecological contexts of the ancient Middle East and Surrounding areas. Students will apply a combination of archaeology and cultural anthropology to illuminate the lives and times of the Biblical eras. Three credits. Typically offered every other spring semester (even-numbered years). Three credits.
AN-280	MEDICAL ANTHROPOLOGY	Medical Anthropology is a specialization within anthropology that draws from the discipline's four fields of cultural anthropology, physical anthropology, archaeology, and linguistics. This course presents an overview of the range of theories and approaches medical anthropologists use to understand the way people deal with, think about and experience health and disease. Topics to be covered include evolutionary approaches to health, cultural and political ecology of health, ethnomedical systems, cultural constructions of illness, biomedicine as a cultural system, and applied medical anthropology. Typically offered every other spring semester (even numbered years). Three credits.
AN-285	FOUNDATIONS OF PUBLIC HEALTH	Public health applies social and natural sciences toward the mission of "fulfilling society's interest in assuring conditions in which people can be healthy" (Institute of Medicine, Future of Public Health, 1988). This course explores the foundations of public health through study of the history, ethical and theoretical foundations and institutional structures by which public health professionals work toward this mission. Through readings, lectures, discussions and active learning projects, students will examine concepts, principles and tools of the discipline and develop an understanding of the role of public health professionals and organizations in promoting health of populations. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AN-315	APPLIED ANTHROPOLOGY	Applied anthropology is the application of anthropological theories, perspectives and research methods to understanding and solving real-world problems. This course will examine applications of anthropology in areas including medicine and public health, environmental and ecological issues, indigenous rights and basic human rights as well as in the context of other disciplines such as business, marketing and education. Students will participate in an applied project as part of an experiential and service learning approach. Prerequisites: AN 222. Typically offered every other fall semester (odd numbered years). Three credits.
AN-328	LINGUISTIC ANTHROPOLOGY	The course examines the origins, nature, and development of human language and communication. The topics we cover include the mechanics of speech, history of languages, ways in which languages change, connections between language and cognition, kinesics, literacy, and language acquisition. Prerequisites: AN 222 or permission of instructor. Occasional offering. Three credits.
AN-350	INDEPENDENT STUDY - ANTHROPOLOGY	Independent investigation and research into a special topic for selected students. Topics are determined by both student and professor. Prerequisite: permission of faculty member and departmental chair. May be repeated. Variable credit.
AN-360	QUALITATIVE RESEARCH METHODS	This course takes a practical, experiential approach to collection and analysis of qualitative data. Students will learn the fundamentals of qualitative research design and, through a series of field exercises, develop skills in a number of qualitative data collection methods and analysis. Research methods covered will include observation, participant observation, informal and formal interviewing, focus groups and questionnaires. Through discussion and exercises, we will examine ethical issues, theoretical foundations, and potential applications of qualitative and mixed method research. Typically offered every other fall semester (odd numbered years). Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AN-375	SPECIAL TOPICS IN ANTHROPOLOGY	Topics vary, but the focus of this course is an in-depth examination of specific issues and/or developments in anthropology. Prerequisite: junior or senior standing. Occasional offering. Three credits.
AN-450	SENIOR SEMINAR IN ANTHROPOLOGY	This course is a capstone course for Anthropology majors. It is designed to facilitate critical reflection and analysis through completion of an independent senior project as well as a self-evaluation of anthropological skills/knowledge and personal objectives. Prerequisite: permission of the faculty member. Three credits.
AN-550	ANTHROPOLOGY INTERNSHIP	Students may arrange to receive credit for employment experience in various non-college settings. It is also possible to have paid or unpaid professional work entered into the transcript as "no credit." Prerequisite: permission of the departmental coordinator. May be repeated. Variable credit.
AR-00X	ART EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
AR-100	ART & MUSIC OF WESTERN CULTURE	An interdisciplinary course designed to provide students with an introductory experience in the fine arts. The course is divided into two components. The first consists of a survey of the evolution of art and music in the context of the historical and cultural background of major periods of western civilization. The second is a study of the principles inherent in both musical composition and the structure and meaning of style and expression in architecture, painting, and sculpture. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered both semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-100F	ART & MUSIC OF WESTERN CULTURE	FIRST YEAR SEMINAR. An interdisciplinary course designed to provide students with an introductory experience in the fine arts. The course is divided into two components. The first consists of a survey of the evolution of art and music in the context of the historical and cultural background of major periods of western civilization. The second is a study of the principles inherent in both musical composition and the structure and meaning of style and expression in architecture, painting, and sculpture. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Four credits.
AR-101	ART HISTORY I: ANCIENT THROUGH RENAISSANCE	This course provides an introduction to the art and architecture of western culture from pre-history through the Renaissance. Topics include the Neolithic Age, Ancient Near East Art, Egyptian Art, Greek and Roman Art, the Middle Ages (Early Christian, Romanesque, and Gothic), and Renaissance Art. Emphasis is placed on how art and architecture reinforce the social, religious, and cultural beliefs of civilizations. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Offered fall semester. Three credits.
AR-102	ART HISTORY II: BAROQUE TO THE PRESENT	This course continues to provide an introduction to the art and architecture of western culture by focusing on the art and architecture of the 17th through the 20th centuries. Topics include Baroque Art, Rococo, Neo-Classical, and Romantic periods as well as Impressionism, Expressionism and various artistic movements of the 20th century. Emphasis is placed on how art and architecture reinforce the social, religious, and cultural beliefs of the periods. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-104	INTRODUCTION TO VISUAL ARTS	This course offers the tools and knowledge needed to develop aesthetic perception. The emphasis will be on terminology and identification as it relates to form and style. Matters of taste and appreciation are largely left to the individual student. Areas include drawing, painting, printmaking, photography, sculpture, architecture, music, literature, theater, cinema, and dance. In general, the activities include weekly chapter readings accompanied by discussion forums and quizzes. This is a hybrid course, which means that in-class time will be reduced by online assignments. We will also be doing a few studio art and photography assignments as the class progresses. Fulfills the Core Curriculum fine arts requirement. Three credits.
AR-125	ACTING	Fundamental skills for acting for the stage. The major emphasis is on actor development and growth through character portrayal, scene performances, and written work. Representative selections from the various historical periods of Western Theater. Fulfills the Core Curriculum fine arts requirement. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Offered both semesters. Three credits.
AR-130	DRAWING I	An introductory course to the methods and materials of drawing. Its purpose is to provide the student with solid foundational skills and the opportunity to explore a variety of approaches to drawing. Line, color, form, value, and composition will be the primary topics. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Fee. Offered fall semester. Three credits.
AR-131	DESIGN: TWO-DIMENSIONAL	This course will explore the elements of two-dimensional design. The student will use a variety of materials in both theoretical and practical uses. Topics will include composition, color, and visual communication. The history and function of design will also be examined. No prerequisites. Fulfills the core curriculum fine arts requirement. Fee. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-134	PAINT LIKE THE IMPRESSIONISTS	<p>Come join us as we paint outside - imagine yellow skies, blue shadows and speckled trees. Inspired by the impressionists and post-impressionists this course is open to all levels. We will explore color theory, texture, composition and more through "en plein air" and direct painting. This hybrid course will take advantage of Saint Vincent's beautiful Winnie Palmer Nature reserve and cyberspace. Classes will meet outside (weather permitting) and conversations will be held online. Students will use acrylics, pastels, ink, marker and other materials. Students must be prepared to be outside for extended periods of time with proper dress, hats, water and sunscreen. Online conversations will discuss impressionist and post-impressionist works of art as inspiration for what can be accomplished each day! Open to all levels Materials will be provided. Three credits.</p>
AR-135	DESIGN: 3D	<p>What is good design? How does the shape of something contribute to how well it works, or how willing we are to use it? This introductory course will consider shape as a dynamic quality. Positive and negative form, surface, and the way something feels will be considered as components of a good design. Assignments will involve forming, fabrication, and joining of various materials.No prerequisites. Fulfills the Core Curriculum fine arts requirement. Fee. Offered spring semester odd-numbered years. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
AR-138	DRAWING, PAINTING, & PHOTOGRAPY/ITALY	Students will explore drawing, painting and photography in any style, from realism to impressionism to abstract. Students will explore various locations in the Piedmont Region of Italy through drawing, painting en plein air and photography and have the chance to observe nature and life in Italian villages. Group trips will be taken, and discussions and critiques will be held with instructors at the end of each day. This is course is a Study Abroad course and requires registration in a workshop. For more information about the workshop contact one of the instructors: David Lester Learn at 574-229-3808 or Richard A. Stoner at 412-389-4019. A list of supplies needed will be sent upon registration. Permission of Instructor required. Fulfills the Core Curriculum Fine Arts Requirement. Three credits.
AR-145	INTRODUCTION TO FILM STUDIES	This introductory course discusses the history and criticism of film. Topics include directors, film vocabulary, analysis and important historical examples. Class format will include film screenings, discussions and lectures. Fulfills the Core Curriculum fine arts requirement. No prerequisites. Offered fall semester. Three credits.
AR-145F	INTRODUCTION TO FILM STUDIES	FIRST YEAR SEMINAR. This introductory course discusses the history and criticism of film. Topics include directors, film vocabulary, analysis and important historical examples. Class format will include film screenings, discussions and lectures. Fulfills the Core Curriculum fine arts requirement. No prerequisites. Offered fall semester. Four credits.
AR-155	HISTORY OF PHOTOGRAPHY	A survey lecture course on the history of the technological and creative developments of photography from pre-photographic discoveries, such as the pin-hole effect and camera obscura, through film, and up to the current age of digital imagery. Particular emphasis will be given to the subject of the medium as a means of creative expression. Fulfills the Core Curriculum fine arts requirement. Offered fall semesters of even-numbered years. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-165	MUSICAL THEATER HISTORY	This course explores the history, development, creators and composers of musical theater. We will discuss the major elements from the mid-18th century to the present of a musical production; the book, lyrics, score, dance and set design. We will trace the musical's evolution through the colorful eras of Minstrel Shows, Vaudeville, Burlesque, Revue, and the Golden Era up through the British Invasion and to the present day. You will learn the techniques and contributions from such great composers and lyricists as Irving Berlin, Jerome, Kern, Cole Porter, Rodgers and Hammerstein II, and Stephen Sondheim's influences on the present day musical theater. Three credits.
AR-170	IDOL WORSHIP: ICONOCLASM & IDOLATRY IN ART HISTORY	How do we depict the divine? Some say, to even try limits our ability to imagine an all powerful being. This course will look at a range of art historical examples from Egypt, Byzantine, Early Christian, Renaissance, Non-Western, Baroque and Contemporary Art. We will also read texts related to religious and cultural laws prohibiting certain images the most famous being the second commandment's prohibition against graven images in the Old Testament. We will seek not only theological reason for such laws but historical and cultural influences as well. This is an introductory level survey course that satisfies the core curriculum. Three credits.
AR-212	BEGINNING BLACK & WHITE PHOTOGRAPHY	An introductory course designed to teach the student 35mm black and white film exposure, processing, and producing the classic b/w print. Camera techniques will be discussed along with darkroom procedures. A brief history of the medium will also be included with an emphasis on fine art photography. A 35mm camera in good working order is required to be supplied by each student.No prerequisites. Does not satisfy Fine Arts Core Curriculum requirement. Fee. Offered both semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-215	ACTING II	This course will strengthen and expand upon the basic stage acting skills. The focus will be on character building and scene analysis, along with the various tools (voice, movement, etc.) necessary for successful theatrical performances. Students will study various theoretical approaches to the art of acting, but our primary goal will be practical: most of the course will consist of exercises and scene work. Prerequisite: AR 125 or permission of instructor. Offered spring semester, as needed. Three credits.
AR-225	PAINTING I	This intermediate level course is for students who want to learn the methods and materials of painting with oils and acrylics. Its purpose is to provide the student with solid foundational skills and an opportunity to explore a variety of approaches in the creation of paintings including layering, glazing, mixing paint medium and proper studio maintenance. Prerequisites: AR 130 and AR 131. Fee. Offered fall semester. Three credits.
AR-230	DRAWING II	An introductory course to the methods and materials of drawing. Its purpose is to provide the student with solid foundational skills and the opportunity to explore a variety of approaches to drawing. Line, color, form, value, and composition will be the primary topics. No prerequisites. Fulfills the Core Curriculum fine arts requirement. Prerequisites: AR 130 or Ar 131. Fee. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-233	DRAWING AND ILLUSTRATION FOR DESIGN	In this class various methods of design and visual communication used by designers will be explored. Sketching and rendering skills to help resolve form while communicating ideas within inter-disciplinary environments will be developed. The course will focus on sketching from the ideation phase through to a final solution that fully describes the aesthetic and emotive intents. Functional and manufacturing requirements will be considered, as will various illustration genres, including books, editorial and corporate illustration. The course is built on the belief that strong two-dimensional skills remain the essential tool for product designers and illustrators. Prerequisites: AR 130 or AR 131. Fee. Offered spring semester odd-numbered years. Three credits.
AR-234	INTRODUCTION TO STAINED GLASS	Students will be introduced to the tools and materials needed to create both two and three-dimensional designs made with stained glass. Processes include: designing stained glass, cutting glass, assembling using the copper foil method and leading glass, soldering lead and copper foil, sealing leaded panels. Can replace AR 135, AR 240, or AR 336 requirement for all AR majors. Does not satisfy Fine Arts Core Curriculum requirement. Fee. Offered fall semester odd-numbered years. Three credits.
AR-236	FIBER ARTS	This class will include both traditional and non-traditional fibers. We will explore various methods of creating artwork using fiber which will include knitting, crocheting, felting, and weaving. Animal, vegetable, and mineral fibers will be spun into usable strands to create cloth and other art pieces. The use of embellishments such as beads, embroidery, and trims added to fabric will also be employed. Can replace AR 135, AR 240, or AR 336 requirement for all AR majors. Does not satisfy Fine Arts Core Curriculum requirement. Fee. Offered fall semester even-numbered years. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-238	CERAMICS	This course will introduce the student to various techniques used when working with clay. Students will create three-dimensional forms in clay through hand-building, pinching, coiling, and throwing on a potter's wheel. The finished forms will be fired in a kiln and glazed. The outcome of this class is to create clay based art that will be included in the student's final portfolio. Can replace AR 135, AR 240, or AR 336 requirement for all AR majors. Does not satisfy Fine Arts Core Curriculum requirement. Fee. Offered Spring semester of odd-numbered years. Three credits.
AR-240	SCULPTURE I	Sculpture takes many forms. Students will be introduced to a variety of construction techniques involving clay, plaster, wire, fibers, and other materials. Assignments will challenge the student to find the scope of possibilities with each material. In addition to the development of artistic skills, students will participate in critiques that reinforce critical thinking in the classroom. Fee. Offered fall semester odd-numbered years. Three credits.
AR-245	IDOL WORSHIP: ICONONOCCLASM &	How do we depict the divine? Some say, to even try limits our ability to imagine an all-powerful being. This course will look at a range of art historical examples from Egypt, Byzantine, Early Christian, Renaissance, Non-Western, Baroque and Contemporary Art. We will also read texts related to religious and cultural laws prohibiting certain images the most famous being the second commandment's prohibition against graven images in the Old Testament. We will seek not only theological reason for such laws but historical and cultural influences as well. Prerequisites: Any 100 level history course. Can replace AR 205, AR 310 major requirement. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-280	MUSEUM & PERFORMING ARTS STUDIES	This course assists the student in understanding the role and mission of various types of museums. In addition, museum design and facilities, community outreach and exhibitions, as well as staffing and work will be examined. The course will have readings and lectures interspersed with trips to local museums so that the student may understand these principles as they pertain to large and small art museums, house museums, historical sites, historical societies, children museums, and natural history/science museums. N.B.: When registering for this course, the student should be free for at least an hour before and after the actual course time to facilitate travel time to various sites. No prerequisites. Fee. Offered spring semester in even-numbered years as needed. Three credits.
AR-310	AMERICAN ART AND ARCHITECTURE	This course is a survey of American art and architecture that will focus on the 19th and 20th centuries. Emphasis will be place on the relationship of American thought and the ever-shifting relationship between American artists and architects and their European contemporaries. Prerequisite: AR 101 or AR 102. Three credits.
AR-325	PAINTING II	This course is a progression of AR 225. Students will refine their skill and have the opportunity to expand their use of materials. The student should begin to develop a personal style. Prerequisite: AR 225. Fee. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-330	Digital Photography and Post-Production	This course teaches students about digital photography and postproduction, providing them with the knowledge, skills and experience necessary in professions which utilize photographs and digital art in various applications. Topics and skills the course will address include the history and development of the modern digitalcamera, terminology used in digital imagery, physical componentsand features of digital cameras, and post-production techniques in image enhancement and manipulation. Since mastering the complexity of the various features available on digital cameras today is an integral part of the course, each student is required to have a personal digital camera to use. This camera should have various features and functions, and be the best quality camera the student can afford. No prerequisites. Three credits.
AR-333	ADVANCED PHOTOGRAPHY	A continuation of AR 212, this black and white film course explores the use of different films, different printing papers, various darkroom techniques, and features the use of a large format camera and film. The emphasis of the course will be on fine art photographic image making. Students will be required to supply a working 35mm camera. Prerequisite: AR 212. Fee. Offered spring semester as needed. Three credits.
AR-334	TYPOGRAPHY	The fundamentals of typography, its theory, practice, technology and history will be covered in this course. Letterforms, type design and classification, proportion, and hierarchy will be studied. Students will focus on the details of page composition and the relationship of space to clarity, legibility and aesthetics. Typography and letterforms will be explored as both a means of communication and a vehicle for expression and enhanced meaning. Does not satisfy Fine Arts Core Curriculum requirement. Fee. Three credits.
AR-336	SCULPTURE II	This advanced course is a continuation of AR 240 Sculpture I. Proficiency with a variety of materials is assumed. More challenging conceptual and theoretical assignments will challenge students to develop their own working methods and relationship to materials. Prerequisites: AR 240. Fee. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-337	ADVANCED STAINED GLASS	This course provides the stained glass student with new skills to further their ability in how they work with glass. Glass painting, fusing glass, etching on glass, and the use of beveled glass will take the craft of stained glass art to a whole new realm. We will also work with mosaic designs using the scrap glass. There will be an opportunity to create three-dimensional designs with glass such as Tiffany style lampshades as well as more modern projects. Students must have the basic techniques of cutting glass and lead assembly of glass well understood before taking this advanced course. One project will become a part of the Saint Vincent Campus for further generations of students to enjoy. Fee. Three credits.
AR-338	PRINTMAKING I	An introduction to the basic procedures of the four major processes for creating multiple originals: relief, serigraphy, intaglio, and lithography. Prerequisites: AR 130 or AR 131. Fee. Three credits.
AR-348	PRINTMAKING II	An in-depth investigation of student selected processes with emphasis on refined basic technique as well as sophisticated technical applications. Prerequisites: AR 338. Fee. Three credits.
AR-350	INDEPENDENT STUDY -- ART	Topics of research are chosen and developed by the student with the guidance of the professor directing the study. Prerequisites: AR 101 and AR 102 or AR 130, AR 131 and AR 225. May be repeated. Permission of the instructor and department chair required. Variable credit.
AR-355	PRE-RENAISSANCE ART & ARCHITE	Each time this seminar course is taught a different period of the art and architecture of Pre-Renaissance Western Civilization will be studied. Periods and subject areas will be chosen from the art and architecture of the ancient Middle Eastern civilizations of Mesopotamia and the Aegean; Ancient Egypt; Ancient Greek and Roman; Byzantine and Early Christian; and Romanesque and Gothic. Prerequisite: AR 101. Offered spring semester of evennumbered years as needed. May be repeated. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
AR-370	AVANT-GARDE ART: 19 & 20TH CEN	<p>This intermediary course follows the development of avant-garde art movements in the 19th and 20th Centuries. The 19th and 20th Centuries are marked by unprecedented change and invention. As the effects of Revolutions in Europe and America began to take form, art and architecture supported and responded to those influences. Even more abrupt are numerous other historical, political, economic and technological advances. Some of them include: invention of photography, the dominance of Europe followed by the rise of the United States, and regional and world war. The Avant-garde, or perhaps multiple avant-gardes, rose to prominence throughout the 19th and 20th Century. Did these have lasting effect on art? Was this tendency to break with the past the normal response to sudden change? Or did art follow it's own history of reinvention? What connections can be drawn between the development of art and history? Are these connections still valid? This course will investigate the ideas and artistic production of those considered part of the Avant-Garde and puzzle over its lasting effects. Multiple disciplines will be used including art history, philosophy and criticism and cultural history. Prerequisite: AR 101 or AR 102. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
AR-370H	HONORS AVANT-GARDE ART	<p>HONORS COURSE. This intermediary course follows the development of avant-garde art movements in the 19th and 20th Centuries. The 19th and 20th Centuries are marked by unprecedented change and invention. As the effects of Revolutions in Europe and America began to take form, art and architecture supported and responded to those influences. Even more abrupt are numerous other historical, political, economic and technological advances. Some of them include: invention of photography, the dominance of Europe followed by the rise of the United States, and regional and world war. The Avant-garde, or perhaps multiple avant-gardes, rose to prominence throughout the 19th and 20th Century. Did these have lasting effect on art? Was this tendency to break with the past the normal response to sudden change? Or did art follow it's own history of reinvention? What connections can be drawn between the development of art and history? Are these connections still valid? This course will investigate the ideas and artistic production of those considered part of the Avant-Garde and puzzle over its lasting effects. Multiple disciplines will be used including art history, philosophy and criticism and cultural history. Replaces AR 375 19th Century Art and AR 380 20th Century Art. Prerequisite: AR 102. Three credits.</p>
AR-384	ADVANCED STAINED GLASS	<p>This advanced course provides the student with new skills to further their ability in how they work with glass. Glass painting, fusing glass, etching on glass, and the use of beveled glass will take the craft of stained glass art to a whole new realm. We will also work with mosaic designs using the scrap glass. There will be an opportunity to create three-dimensional designs with glass such as Tiffany style lampshades as well as more modern projects. Students must have the basic techniques of cutting glass and lead assembly of glass well understood before taking this advanced course. One project will become a part of the Saint Vincent Campus for further generations of students to enjoy. 3 credits. Fee. Prerequisites: AR 234. This course may be taken again for credit.</p>

COURSE	TITLE	COURSE DESCRIPTION
AR-385	CONTEMPORARY ART SEMINAR	The specific subject of this seminar will alternate but it will always address a significant aspect of contemporary art and architecture. Prerequisite: AR 101 or AR 102. Three credits.
AR-386	ADVANCED FIBER ART	Having developed basic skills in crocheting, weaving, felting and sewing, students will now explore how these techniques can be used to create three dimensional artistic forms. Wearable art, installation and contemporary fibers will be the focus of the assignments. Students will be encouraged to develop their own vision and apply a mixture of techniques. Prerequisite: AR 236. Fee. Three credits. May be repeated for credit.
AR-388	ADVANCED CERAMICS	This advanced course will focus on joinery and scale. Students will further develop their consistency with throwing and how to join forms together to create studio pottery and sculptural forms. Basic glaze and firing chemistry will be covered. At the advanced level, students will be encouraged to integrate various techniques into a single project with the goal to develop self-expression and proficiency with the materials. Prerequisite: AR 238. Fee. Three credits. This course may be repeated for credit.
AR-404	SENIOR STUDIO	What kind of art do you want to make? This capstone course is to be followed by Senior Exhibition and is for graduating art education and visual arts majors only. Assignments are student directed and faculty mentored. All materials offered by the department are available for student use. Students are encouraged to develop their own style, be ambitious and work in a professional manner. Work completed during the course will be exhibited in AR 405 Senior Exhibition. Three Credits. Fee. Prerequisites: At least two 200 or 300 level studio courses. Graduating students only or permission of instructor.

COURSE	TITLE	COURSE DESCRIPTION
AR-405	SENIOR EXHIBIT. & PRO. SEMINA	Senior Exhibition is the second part of the capstone project for art education and visual arts majors. Students will continue to develop a personal style and portfolio of work. Students are required to exhibit their work in the Saint Vincent College Gallery. To do so, they must follow all the guidelines, due dates and produce the deliverables required by the Gallery Director and not the course professor. This opportunity affords the student a professional experience that is demanded of the field. 3 credits. Fee. Prerequisites: AR 404. Graduating students only or permission of instructor.
AR-406	GRAPHIC DESIGN PORTFOLIO	Graphic Design Portfolio is for graduating seniors. What do you enjoy most about graphic design? What kind of firm do you want to work for? Do you know what is out there? This capstone course will guide students as they develop their portfolio and learn about local and regional graphic designers and what they do. Students are required to present their portfolios during the Student Academic Conference. They are responsible for meeting all deadlines and requirements of the conference organizers. Students will also conduct informational interviews with working professionals and learn about the range of graphic design firms and projects. While the course is geared toward professionalism, assignments are student directed. Three credits. Hybrid Course.
AR-550	ART INTERNSHIP	Students may work in a professional setting in order to extend their learning experience beyond college into the world of work; relevant experiences can take the form of internships, field work, and cooperative programs, particularly in artist studios, commercial graphic design departments, art galleries, museums and arts management offices. Students may or may not be paid, depending on the policy of the employer. For junior and senior art majors and minors only. May be repeated. Variable credit.
BL-00X	BIOLOGY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.

COURSE	TITLE	COURSE DESCRIPTION
BL-150	GENERAL BIOLOGY I	This year-long course is intended for science majors. The first semester addresses the biology of cells, and animal physiology, development, and taxonomy. The second semester continues with plant biology, classical and molecular genetics, and ecology and evolution. At the conclusion of the course, Biology majors select cell and molecular biology, organismal biology or population biology as an area of concentration for subsequent work. A passing grade in BL 150 is required for BL 152. Three credits each semester.
BL-150F	GENERAL BIOLOGY I	FIRST YEAR SEMINAR. This year-long course is intended for science majors. The first semester addresses the biology of cells, and animal physiology, development, and taxonomy. The second semester continues with plant biology, classical and molecular genetics, and ecology and evolution. At the conclusion of the course, Biology majors select cell and molecular biology, organismal biology or population biology as an area of concentration for subsequent work. A passing grade in BL 150 is required for BL 152. Four credits first semester --three credits second semester.
BL-151	GENERAL BIOLOGY I LABORATORY	This course introduces scientific method, statistics, laboratory techniques, and the use of instruments as students perform experiments that reinforce and expand upon ideas presented in BL 150 and 152. One credit each semester.
BL-152	GENERAL BIOLOGY II	This year-long course is intended for science majors. The first semester addresses the biology of cells, and animal physiology, development, and taxonomy. The second semester continues with plant biology, classical and molecular genetics, and ecology and evolution. At the conclusion of the course, Biology majors select cell and molecular biology, organismal biology or population biology as an area of concentration for subsequent work. A passing grade in BL 150 is required for BL 152. Three credits each semester.
BL-153	GENERAL BIOLOGY II LABORATORY	This course introduces scientific method, statistics, laboratory techniques, and the use of instruments as students perform experiments that reinforce and expand upon ideas presented in BL 150 and 152. One credit each semester.

COURSE	TITLE	COURSE DESCRIPTION
BL-208	CELL BIOLOGY	<p>This course is an intensive examination of cell ultrastructure and function. Emphasis is placed on the role of specific organelles in cellular processes such as membrane structure, function, biogenesis and recycling; protein structure, assembly, modification and trafficking; energy transduction; intracellular transport; cellular locomotion; cell cycle control and programmed cell death; and, cell to cell communication. Techniques employed in the study of cellular components and processes, including microscopy, are integrated into the course content; as is the relationship of individual cells within the environment of an integrated multicellular organism. Prerequisites BL150-153. Three credits.</p>
BL-209	CELL BIOLOGY LABORATORY	<p>The laboratory is designed to familiarize students with the general methods used to study the physical nature of cells and their inherent biochemical processes. Experimental techniques performed range from the measurements of cell growth rates to the differential purification and biochemical analysis of subcellular components. The use of fluorescence microscopy to localize specific proteins in situ, using digital image capture and analysis, will be profiled. Throughout the laboratory an emphasis will be placed on the use of digital technologies to facilitate quantitative analysis of biological processes. Prerequisites BL150-153. One credit.</p>
BL-212	MICROBIOLOGY	<p>This course will introduce students to microbiology, the study of microorganisms with a focus on bacteria and viruses. The course will include discussions and lectures on the history of microbiology, microbial growth and metabolism, and microbial genetics. The impact of microorganisms in the environment, interactions with other organisms, and microbial diseases, treatments and the human immune response will be studied. Prerequisites BL150- 153. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BL-213	MICROBIOLOGY LAB	Students will learn how to properly handle, grow, and identify microorganisms. Students will study microorganisms in the environment including biofilms, the effect of antibiotics on bacteria, identification of food contaminants, and various factors that contribute to changes in microbial growth. The lab will focus on bacteria. Prerequisites BL150-153. One credit.
BL-214	MOLECULAR GENETICS	This course focuses on the gene, both in the context of genome structure and organization, and the coordination of individual gene expression. Specific emphasis is placed on the interaction between DNA and protein in relation to the regulation of gene expression, DNA replication, and recombination; the critical role of chromatin structure in gene organization and expression; and the molecular events in transcription, translation, and mutation. Structure and function comparisons are made between prokaryotes and eukaryotes using the bacterium <i>Escherichia coli</i> , the simple eukaryote <i>Saccharomyces cerevisiae</i> (baker's yeast), and humans, as paradigm organisms. Special attention is given to the techniques employed in molecular genetic analysis, including recombinant DNA methodologies and the relationship between molecular genetics and the fields of bioinformatics and biotechnology. Prerequisites BL150-153. Three credits.
BL-215	MOLECULAR GENETICS LABORATORY	This course is a hands-on engagement of the foundational methodologies used to elucidate, manipulate and quantify gene anatomy and expression. The technologies employed for cloning vector design and construction, molecular cloning, gene transfer, nucleic acid isolation, hybridization analysis, DNA amplification, RT-PCR, DNA sequencing, and, genetic sequence and database analyses are explored theoretically and in practical application. Prerequisites BL150-153. One credit.

COURSE	TITLE	COURSE DESCRIPTION
BL-216	BIOTECHNOLOGY	This course engages the rapidly developing field of biotechnology through careful dissection of the technologies and their applications. Topics including cell-based and cell-free food and beverage biotechnology, heterologous protein expression in prokaryotic and eukaryotic systems, the design and production of the transgenic plants and animals, stem cell technologies, reproductive and therapeutic cloning strategies, somatic and germline gene therapy approaches, vaccine development, DNA forensics, bioremediation, biofuels, and high throughput screening are examined in detail with consideration given to both their potential and realized industrial, medical and environmental applications. Emphasis is placed on the technical considerations unique to each technology, although safety and ethical considerations will also be addressed. Offered in even-numbered years. Prerequisites BL 150-153. Three credits.
BL-217	BIOTECHNOLOGY LABORATORY	This course provides students with significant hands-on experience performing techniques critical to the biotechnology industry. Laboratory exercises involve, food biotechnology, biosensor construction, recombinant protein production and purification in both prokaryotic and eukaryotic systems, plant and animal cell culture, and gene transfer to cultured plant and animal cells. Must be concurrently enrolled in BL216 Biotechnology. Offered in even-numbered years. Prerequisites BL150-153. Three credits.
BL-220	COMPARATIVE VERTEBRATE ANATOMY	This course endeavors to provide a comprehensive comparison of vertebrate structure and function in the major body systems. Animals being discussed range from fish to reptiles, to mammals. Human comparisons are also included with each body system. This course is taken concurrently with Comparative Vertebrate Anatomy Laboratory. Prerequisites BL150-153. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BL-221	COMPARATIVE VERTEBRATE ANATOMY LAB	The first part of this course is the comparative analysis of vertebrate skeletal structure. Animals under study include sharks, fish, amphibians, reptiles, birds, and mammals. The second part of the course involves an intensive study of mammalian gross anatomy through dissection of a cat. Body systems to be studied include the muscular, digestive, urogenital, reproductive, circulatory, and nervous systems. Prerequisites BL150-153. One credit.
BL-222	DEVELOPMENTAL BIOLOGY	This course provides a comprehensive study of both invertebrate and vertebrate embryology with a particular focus on important model organisms. The course will also provide an overview of plant developmental mechanisms. Areas of study include gametogenesis, fertilization, early embryological events and organogenesis. This course will focus on both classical embryological and modern molecular and genetic techniques. In addition, the course incorporates a component that discusses the bioethical issues surrounding important areas in developmental biology such as cloning and stem cell research. Taken concurrently with Developmental Biology Laboratory. Prerequisites BL150-153. Three credits.
BL-223	DEVELOPMENTAL BIOLOGY LAB	This course provides students with hands-on experiences in both classical and molecular developmental biological techniques. The course consists of two distinct units. The first unit focuses on the preservation and developmental staging of invertebrate and vertebrate embryonic model organisms. The second part focuses on the theory and practice of using molecular techniques (RT-PCR, In-Situ Hybridization, etc.) to investigate gene expression patterning during normal and abnormal embryonic development. Must be concurrently enrolled in BL 222 Developmental Biology. Prerequisites: BL 150-153. One credit.

COURSE	TITLE	COURSE DESCRIPTION
BL-224	MAMMALIAN PHYSIOLOGY	Detailed study of organ system function with emphasis on humans. The systems studied include neuromuscular, cardiovascular, respiratory, renal, digestive and endocrine. Homeostasis, regulatory mechanisms and the functional relationships between systems are emphasized. Prerequisites BL150-153. Three credits.
BL-225	MAMMALIAN PHYSIOLOGY LABORATORY	Hypothesis-driven laboratory experiments designed to explore organ system function in mammals, including humans. Students work extensively with computers to acquire, process and present data. Prerequisites BL150-153. One credit.
BL-226	NEUROSCIENCE	This course provides an application of the fundamental concepts of neuroscience to brain areas, pathways and processes, simple and complex behaviors, as well as mental diseases and disorders. Emphasis is given to the structure and function of the human brain. The course combines lectures, discussions, case studies, and independent projects to allow students to explore topics across the breadth of the field of neuroscience. These topics include neuroanatomy, neurophysiology, neuropharmacology, and behavioral and cognitive neuroscience. Prerequisites BL150-153. Three credits.
BL-227	NEUROSCIENCE LABORATORY	This laboratory exposes students to a variety of techniques used by neuroscientists. These techniques include neuroanatomical and histological procedures, neurophysiological methods, neuropharmacological investigations, as well as commonly used approaches to explore brain-behavior relationships. Some laboratories incorporate computer simulations. Prerequisites BL150-153. One credit.

COURSE	TITLE	COURSE DESCRIPTION
BL-228	WILDLIFE BIOLOGY	This course combines elements of animal natural history, physiology, and behavior to survey how animals cope with short-term and seasonal changes in their environment. In particular, we will discuss the challenges animals face in maintaining homeostasis during periods of reproduction, migration, hibernation and torpor, resource scarcity, and heightened competition or predation risk. We will examine strategies used by a variety of vertebrate and invertebrate species. Prerequisites BL150-153. Three credits.
BL-229	WILDLIFE BIOLOGY LABORATORY	The objectives for lab and field activities in this course include instruction on animal capture techniques, and the study of animal resource use in relation to habitat and microclimate. Prerequisites BL 150-153. One credit.
BL-230	ORNITHOLOGY	For thousands of years people have marveled at the beauty, the diversity, and the abilities of birds, particularly their ability to fly. Feathers are unique to birds, and birds are also known for their migratory behavior, singing ability, and parental care. While this course will cover these topics in depth, we will also examine how the study of birds can generate new insights relating to issues affecting all animals, including the nature of intelligence, communication, evolution, and ecological interactions. Class periods will feature lecture, multimedia demonstrations, and discussion of scientific literature. There will be a significant number of field trips to observe, identify, and capture birds in their native habitats. Prerequisites BL150-153. Three credits.
BL-232	ECOLOGY	This is a general course emphasizing physical-chemical-biological relationships. Evolutionary trends are considered. Topics include energy relations, biogeochemistry, population growth, and the structure and function of communities and ecosystems. Prerequisites BL150-153. Three credits.
BL-233	ECOLOGY LABORATORY	Lab and field experiences paralleling Ecology 232 are designed to teach specific techniques of research design, field sampling, and data analysis in terrestrial and freshwater ecosystems. Prerequisites BL150-153. One credit.

COURSE	TITLE	COURSE DESCRIPTION
BL-234	EVOLUTION AND SYSTEMATICS	The theory and evidence of the gradual evolution of organisms, and taxonomic relationships of animals and plants. Offered in odd-numbered years. Prerequisites BL150-153. Three credits.
BL-235	EVOLUTION AND SYSTEMATICS LAB	Laboratory experiments, computer simulations, and field trips are designed to study concepts presented in BL 234. Offered in oddnumbered years. Prerequisites BL150-153. One credit.
BL-238	AQUATIC ECOLOGY & TOXICOLOGY	Freshwater and marine systems will be studied from physical, chemical and biological perspectives. The impacts of natural and human disturbances, particularly toxins, will be examined using primary and secondary research literature. Offered in even numbered years. Prerequisites BL 150-153. Three credits.
BL-239	AQUATIC ECOLOGY & TOXIC. LAB	Laboratory experiments, computer simulations and field work will parallel lecture topics. Collection and assessment of physical, chemical and biological data will occur in streams, lakes and wetlands. Offered in even-numbered years. Prerequisites BL 150-153. One credit.
BL-240	CONSERVATION BIOLOGY	The rate of global species extinctions today is comparable to that experienced in the Cretaceous when the dinosaurs fell from prominence. This course will examine the modern causes of extinction as well as the techniques in biology used to monitor and sometimes reverse declining populations of endangered animals and plants. Both a community- and species-centered approach to conservation are discussed. Other topics include mechanisms of evolution and population genetics, invasive species, habitat assessment, wildlife and fisheries management, and species conservation plans for both domestic and international populations. A significant portion of the course grade will be based on a comprehensive term paper and oral presentation. Prequisutes BL 150-153. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BL-241	CONSERVATION BIOLOGY LAB	The laboratory section will emphasize conservation techniques such as habitat assessment, animal and plant identification, animal capture, and field trips dedicated to learning about specific rare or endangered species and rare or endangered habitats. There will also be considerable time spent indoors doing computer modeling. Prerequisite BL-150-153. One credit.
BL-242	HISTOLOGY	A detailed study of the normal tissues of vertebrates from both a morphological and a functional viewpoint. Special emphasis is placed on the characteristics of human tissues, Students must take the laboratory concurrently. Prerequisites BL150-153. Two credits.
BL-243	HISTOLOGY LABORATORY	Each student gets experience in the preparation of slides as well as identifying tissues under the microscope. Prerequisites BL150- 153. One credit.
BL-250	MEDICAL MICROBIOLOGY	This course will introduce students to the study of pathogenic (disease causing) microorganisms with a focus on bacteria and viruses. The course will include discussions and lectures and focus on microbial diseases, treatments and prevention, and the human immune response to microorganisms. Prerequisites BL150-153. Three credits.
BL-260	BIOSTATISTICS	This course deals with quantitative and statistical methodology in the biological sciences. It includes experimental design and the conventions of generating, analyzing, interpreting and presenting biological data. Prerequisites: BL 150-153. Three credits.
BL-301	JUNIOR RESEARCH SEMINAR	Design and plan a research project. Write a research proposal. Two credits.
BL-302	RESEARCH PROJECT	Perform the experimental phase of the research project. Prerequisite: BL 301. Two credits.
BL-303	RESEARCH THESIS	Write the senior research thesis. Prerequisite: BL 302. One credit.
BL-310	TEACHING BIOLOGY	Primarily laboratory instruction which includes lecturing, laboratory preparations and assistance under the supervision of the faculty member in charge of the course. It is not substitute teaching and is intended to provide first-hand experience with the teaching process. Permission of instructor required. One credit.

COURSE	TITLE	COURSE DESCRIPTION
BL-333	SPECIAL STUDY	The student will pursue a faculty directed course of study. Permission of Chairperson required. Variable credit. May be repeated.
BL-350	BIOLOGY INDEPENDENT RESEARCH PROJECT	The student will pursue research distinct from the Senior Research Project. Does not fulfill major or minor credit requirements. Variable credit. May be repeated.
BL-550	BIOLOGY INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are P/F and are awarded by individual departments according to the extent of the work experience. Students may or may not be paid depending on the site. The purpose of the program is to integrate academic studies and employment activities. Does not fulfill major or minor credit requirements. Variable credit. May be repeated.

COURSE	TITLE	COURSE DESCRIPTION
BA-00P	PORTFOLIO	<p>As a requirement to graduation, all McKenna School business majors are required to complete a student portfolio. The portfolio will be utilized by the student to construct resumes, to provide evidence of professional skills (including written, oral presentations, quantitative, and analytical skills) relevant to their major, and to serve as a platform for talking points during interviews. The portfolio is also used to assess the student's ethical development, writing ability, competency utilizing newer technologies applicable to business presentations and data analysis, and proficiency in business information systems. The portfolio contains the following documents: (1) Business Ethics paper written in BA 104 Introduction to Management (Freshman year); (2) updated Business Ethics paper written in BA 305 Business Ethics (Junior second semester or Senior year); (3) a resume (completed the Freshmen year and updated each year); (4) at least one experiential project(s) defined by major with a focus on business skill sets; (5) information systems analysis project; (6) evidence of an oral presentation from a 300 level or above business class; (7) term paper written in a 300 level or above business class; (8) Optional: Professional Thesis All submissions to the portfolio are electronic and submitted to the Dean's Executive Assistant. Zero credits, offered every semester. Register for the class the semester you intend to graduate.</p>
BA-00X	BUSINESS EXIT INTERVIEW	<p>All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.</p>
BA-100	FINANCIAL ACCOUNTING I	<p>Topics include: a general introduction to accounting principles, basic financial statements, the double entry accounting system, the accounting cycle, worksheets and trial balances, merchandising operations, control accounts and subsidiary ledgers, special journals, and internal control and accounting for assets. Offered every semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-100F	FINANCIAL ACCOUNTING I	FIRST YEAR SEMINAR. Topics include: a general introduction to accounting principles, basic financial statements, the double entry accounting system, the accounting cycle, worksheets and trial balances, merchandising operations, control accounts and subsidiary ledgers, special journals, and internal control and accounting for assets. Four credits.
BA-101	FINANCIAL ACCOUNTING II	Students examine 'generally accepted accounting principles' as it applies to the preparation of financial statements of corporations and partnerships. Students prepare financial statements for corporations and partnerships. Students also prepare and utilize the 'statement of cash flow.' Students study and discuss federal payroll taxes, especially employer liabilities and all journal entries. The course covers financial ratios to be used in the analysis of financial statements. The course analyzes long-term liabilities and all associated entries and also devotes a good deal of time to accounting for investments. Prerequisite: BA 100. Offered every semester. Three credits.
BA-102	SURVEY OF ACCOUNTING	Restricted to non-business majors only. This course examines topics common to BA 100 and BA 101, but at a level that is beneficial for non-business majors. Survey of Accounting is recommended to students who will eventually run their own business or be in an occupation that requires some degree of accounting knowledge. Topics include introduction to financial statements, internal controls, cash and accrual basis of accounting and financial statement analysis. The course was especially designed as a prerequisite for our Entrepreneurial and Operational Excellence minors. Offered every spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-103	PERSONAL FINANCIAL PLANNING	<p>This is a course developed for all students to expose them to basic financial topics that they will encounter after graduation. The course will prepare students to make better/more informed financial decisions as they begin careers and assume family responsibilities. This is a very basic course and does not require any business courses as a prerequisite. The topics that will be covered in the course include: Money management skills (budgeting); consumer credit (loans, credit cards, leases, credit scores); major purchases - Housing/Autos; insurance/risk management - auto, home, health, life; personal investing - stocks, bonds, mutual funds; and investing for major goals - children's education, purchase house, retirement, etc. Offered every semester. One credit.</p>
BA-104	INTRODUCTION TO MANAGEMENT	<p>This is an introductory course designed for all first-year (business) students regardless of major. The course introduces the student to the basic concepts related to management including management history, organizational and national culture, strategic policy and decision-making, structure and design of organizations, leadership and communication functions, and operations and information systems management. This course is also a valuable elective for non-majors who anticipate either assuming a management role and/or will be managed by a supervisor in a work setting. Introduction to Management is designed to focus on the specific needs of students early in their undergraduate career by integrating basic concepts that will be covered more in depth in future courses. Additionally, this course aims to expose students to major principles of ethical reasoning. Offered every semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-104F	INTRODUCTION TO MANAGEMENT	<p>FIRST YEAR SEMINAR. This is an introductory course designed for all first-year (business) students regardless of major. The course introduces the student to the basic concepts related to management including management history, organizational and national culture, strategic policy and decision-making, structure and design of organizations, leadership and communication functions, and operations and information systems management. This course is also a valuable elective for non-majors who anticipate either assuming a management role and/or will be managed by a supervisor in a work setting. Introduction to Management is designed to focus on the specific needs of students early in their undergraduate career by integrating basic concepts that will be covered more in depth in future courses. Additionally, this course aims to expose students to major principles of ethical reasoning. Offered every semester. Three credits.</p>
BA-105	INTRO TO MANUFACTURING/OE	<p>The class, conducted in conjunction with the Kennametal Foundation and Greater Latrobe Senior High School, provides an opportunity for students in 11th and 12th grade to learn about engineering and manufacturing through experiences at Kennametal's Technology Center in Latrobe and its manufacturing facilities. The students attend lectures taught by Kennametal employees (Innovators) and participate in projects and field trips at Kennametal twice weekly for fifteen weeks. During the class time at the high school, students research various engineering careers, participate in projects, and develop career skills such as public speaking and resume writing. Students selected for the course are expected to have a strong foundation and interest in science and mathematics. The students are responsible for finding their own transportation to Kennametal's Technology Center and must be available Tuesday's and Thursday's for an additional class period after the end of the normal school day, in addition to the daily scheduled class time the last period of the day. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-150	MANAGERIAL ACCOUNTING	A study of the use of accounting information in performing managerial functions including planning, controls, cost and financial analysis, costing behavior, and incremental costing. Emphasis is on the use of accounting as a tool for management decision making. Prerequisite: BA 100. Offered every semester. Three credits.
BA-170	ORGANIZATIONAL BEHAVIOR	A systematic study of the manager-subordinate relationship as it operates in the environment of an organization. Students develop managerial skills in leadership, motivation, communications, human relations, decision making, and policy formulation. Students learn ways in which these skills can be employed in organizations with established goals, technology and structure. Special attention will be given to how the individual, the work group, and the organization interact to influence the behavior of the business organization and that of its human resources. Offered spring semester. Three credits.
BA-200	INTERMEDIATE ACCOUNTING I	Topics include: analysis of the balance sheet, cash, inventories, investments, tangible fixed assets, liabilities, intangible assets and miscellaneous topics. Prerequisite: BA 101. Offered fall semester. Three credits.
BA-201	INTERMEDIATE ACCOUNTING II	This course focuses on the interpretation and analysis of financial statements and addresses topics concerning the corrections of errors, capital stock, retained earnings and dividends. The course includes case studies. Prerequisite: BA 200. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-220	PRINCIPLES OF MARKETING	<p>This course is an introduction to the theoretical and practical foundations of marketing in a global-managerial framework. The primary marketing decisions variables (product design, pricing, distribution, sales, advertising, and promotion) are introduced and examined from both managerial and consumer perspectives. The relationships among marketing and the other functional areas of business (accounting, finance, and management) are emphasized. Applied economics, electronic commerce, and ethical decision making are interwoven with the substantive topics. Students are exposed to current events in the Wall Street Journal and participate in case studies, group activities, and marketing simulations. No prerequisites. Offered every semester. Three credits.</p>
BA-220F	PRINCIPLES OF MARKETING	<p>FIRST YEAR SEMINAR. This course is an introduction to the theoretical and practical foundations of marketing in a global-managerial framework. The primary marketing decisions variables (product design, pricing, distribution, sales, advertising, and promotion) are introduced and examined from both managerial and consumer perspectives. The relationships among marketing and the other functional areas of business (accounting, finance, and management) are emphasized. Applied economics, electronic commerce, and ethical decision making are interwoven with the substantive topics. Students are exposed to current events in the Wall Street Journal and participate in case studies, group activities, and marketing simulations. No prerequisites. Four credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-225	MONEY AND BANKING	<p>A study of the nature and value of money, with emphasis upon its relationship to economic activity. Special attention is given to monetary theory, especially stationary, steady state, and RE modeling. The course uses Frederic Mishkin's <i>The Economics of Money, Banking, and Financial Markets</i> and selected chapters from Bennett McCallum's <i>Monetary Economics: Theory and Policy</i>. The course also examines the socio-macroeconomic and financial consequences of monetary policies pursued by central banks. Time is devoted to financial institutions, the history of central banking, the risk and term structure of interest rates, monetary tools, aggregate demand and supply analysis, and global markets. Prerequisites: EC 101, EC 102, and BA 351 or EC 360. Cross-listed as EC 225. Offered spring semester of odd-numbered years. Three credits.</p>
BA-230	INTRODUCTION TO ENTREPRENEURSHIP	<p>This course studies the role played by entrepreneurs and small businesses in the American economy. The course will aid the student in both understanding the entrepreneurial process, as well as learning methods of starting successful businesses. Topics include: entrepreneurial traits, small business creation methods and the innovation process, small business management techniques, small business marketing, and financial issues affecting small businesses. Emphasis will be placed on the role that comprehensive business planning has on the success of a small business. Students assist the SVC Small Business Development Center with research, marketing, and design of small business plans for actual clients from Westmoreland and Fayette counties. Presentation skills, written work, and interaction with SBDC clients are emphasized. No prerequisites. Offered fall semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-232	HUMAN RESOURCE MANAGEMENT	In today's dynamic business environment, an organization's human resources may represent their last sustainable competitive advantage. This course will provide an overview of the nature of human resource management as a function within a company and as part of the task of every effective business and professional leader. We will explore the employment relationship, the complex regulatory environment, methods of creating and sustaining a productive employee population, and the importance of integrating HR management with the business strategy from the HR manager's perspective. Prerequisite: BA 170. Offered spring semester. Three credits.
BA-249	TURKISH LANGUAGE AND CULTURE	This elementary level class focuses on conversational Turkish and grammar. Time is also spent learning about Turkish culture and elements of history important to Turkish culture. There are opportunities to share in community activities (e.g., Turkish dinners and ceremonies) with the Turkish Cultural Center in Pittsburgh. The course meets in both the fall spring semesters. The spring semester is a continuation of the fall semester. 1-2 credits, per semester.
BA-250	GLOBAL BUSINESS MANAGEMENT	Students will be introduced to international trade theory and practical global business applications throughout the term. They will be provided with an overview of the global economy, the globalization debate, country and cultural differences, regional economic integration, and international management decision-making processes. Topics will include globalization, international trade theory, exporting considerations, market research resources and methodology, identification and evaluation of international business customers and/or partners, foreign direct investment, market entry methods, and basic international terms and documentation. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-251	INTERNATIONAL BUSINESS	This course examines the role of the multinational corporation in the global economy. Special attention is placed on the importance of culture in doing business globally. International legal aspects, human resource management, marketing, ethics, environmental concerns and finance are targeted. Political, economic and risk factors are also included. Offered fall semester. Three credits.
BA-265	MANAGEMENT INFORMATION SYSTEM	Students are provided with an introduction to the information technology hardware and software platforms, tools, and methodologies utilized in the corporate systems environment. Topics include: hardware, networks, operating systems, databases (e.g.Oracle, IBM DB/2, MySQL), Business Intelligence, Desktop Applications, Business Applications, Electronic Commerce, and Systems Design and Development. The course will also include a detailed examination of the SAP Business One application software. Business majors should take this class during their sophomore year. Offered every semester. Three credits.
BA-280	LEADERSHIP	This course presents a theoretical and applied treatment of a pervasive and challenging task of leading in the new global economy-continuously and successfully dealing with the issues of constant improvement within a framework of ethical leadership. Students will learn the leadership theories, concepts, and applications that will allow them to successfully initiate, analyze, and implement various types of Organizational changes. BA 280 is the capstone class for the operational excellence minor. Offered fall semester. Three credits.
BA-300	COST ACCOUNTING I	This course provides a thorough study of the three elements of production cost: direct materials, direct labor, and manufacturing expense. The course also provides an application of the aforementioned three elements to job order, cost systems, standard costs, flexible budgets, and break-even analysis. Stress is placed on cost accounting as a 'tool of management.' Prerequisite: BA 200. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-301	COST ACCOUNTING II	Cost Accounting II is a study of cost allocation, capital budgeting, joint and by-product costing. The course emphasizes decision making and provides a detailed examination of process costing and transfer pricing. Prerequisite: BA 300. Offered spring semester. Three credits.
BA-302	ADVANCED MICROSOFT EXCEL	This course will prepare students with the essential Microsoft Excel skills needed for the business environment. The course will develop knowledge and skills necessary to use Microsoft Excel efficiently, focusing on how it works, how it integrates with other Microsoft Office products such as Microsoft Word and PowerPoint, and how Microsoft Excel can be customized for specific applications. In addition, the class provides time-saving tips and features to use Microsoft Excel quickly and easily, develop readable charts and tables, and use various security settings to protect the data. Prerequisite: Junior or senior status. Offered spring semester. Two credit.
BA-304	Sap Financial & Accounting Applications	This course provides an overview of SAP Enterprise Resource Planning software system and its role within an organization. Through various exercises and case studies, students will learn to navigate in SAP systems. 2 credits
BA-305	BUSINESS ETHICS	This course is designed to focus the business major's critical thinking and ethical reasoning through the lens of contemporary business issues. In addition to completing the theoretical material in the field of business ethics, students complete a series of short written and oral presentations based on contemporary business case studies. Student presentations utilize a range of resources including the Internet, campus network, Blackboard course software, and Microsoft PowerPoint software. Students complete a seminar paper on current business issue. Students are required to apply ethical lenses derived from Catholic Social teaching and core Benedictine values. The eight lenses are: Human Dignity, Common Good, Solidarity, Subsidiarity, Hospitality, Stewardship, Stability and Community. Prerequisite: BA 104 and junior or senior status. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-306	INTRO TO BUS. INFO. TECH.	This course examines current and emerging technologies utilized in the corporate business environment in addition to the issues leaders encounter in information technology decisions. Students will be introduced to the strategic management of information technology resources in the corporate systems environment. Topics include: enterprise hardware and software architecture, virtualization and cloud computing, and IT governance and project management. Offered fall semester. Three credits.
BA-310	TAXES I	This course provides students with an introduction to Federal Income Tax Law. The Internal Revenue code is studied and applied to various tax situations of individuals. Topics include gross income, exclusions, business expenses, non-business deductions, and the realization of gain or loss. Prerequisite: BA 100. Offered fall semester. Three credits.
BA-311	TAXES II	The preparation of returns for partnerships, s-corporations, and corporations constitutes the subject matter of the course. Prerequisite: BA 100. Offered spring semester. Three credits.
BA-312	TAX LAB	This one credit lab will provide students with a working knowledge of web-based tax research tools. Students will use CCH OmniTax, IRS.gov and other online Taxation websites to research primary and secondary resources of tax law used in practice. Students are required to take BA 312 with BA 310 Taxes I. Offered fall semester. One credit.
BA-320	CORPORATE FINANCE I	This course presents an analysis of the principal financial problems involved within the life cycle of the corporation. A large amount of time is also devoted to ratio analysis, cash budgets, financing fixed and working capital requirements, capital budgeting, the cost of capital, and dividend policy. The course utilizes Microsoft Excel to set up financial statements, to compute financial ratios, to develop charts, and to analyze financial trends. Prerequisites: BA 101 and must buy TIBA II plus calculator. Take sophomore year. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-321	CORPORATE FINANCE II	Topics include Dividend Policy, capital project financing, business valuations, further ratio analysis and changing corporate governance issues. Case studies will be used to provide a practical application for financial theory. Prerequisites: BA 320 and must buy TIBA II plus calculator. Offered spring semester. Three credits.
BA-322	ENTREPRENEURIAL FINANCE	This course examines the sources of funding available to entrepreneurs to fund their business and options that they can utilize to harvest their investments. The course will focus on the private debt and equity markets that service start-up and rapidly growing entrepreneurial firms. The course will be divided into four parts. Part I will provide an overview of small business financing and how the entrepreneur should prepare to approach the financial community. In Part II, we will examine the private equity markets that specifically provide financing to new ventures in the form of 'seed money.' Particular attention will be focused on both angel financing and the venture capital market. Part III examines the private debt markets that provide financing to small firms with a particular emphasis on commercial banks and governmental agencies that are supportive of entrepreneurial ventures. Part IV will cover the options to the entrepreneur to monetize his/her investment. Prerequisites: BA 320. Offered spring semester. Three credits.
BA-324	ADV. PERSONAL FINANCIAL PLANNING	This course is primarily designed for finance majors who desire to take the Certified Financial Planner (CFP) exam after graduation and for other business majors who are interested in taking an advanced level course in personal financial planning. Topics covered in the course will include retail banking, money management and credit management skills, major personal asset acquisitions; such as, automobiles and houses, the proper use of insurance to protect against potential hazard(s). Major emphasis in the course will be placed on investment and retirement planning, tax planning, and estate planning. Prerequisites: BA 320 and must have TI BAII Plus calculator. Take senior year. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-325	ANALYSIS OF FIN STATEMENTS	This course emphasizes the use of financial and accounting information. The course is a case study approach to the financial problems of sole proprietorships and corporations. Topics will center around ratio analysis, financial projections, working capital management, capital budgeting, the cost of capital, capital structure and planning, and dividend policy. Prerequisite: BA 320. Offered spring semester. Three credits.
BA-330	ADVERTISING AND PROMOTION	This course provides a basis for understanding the marketing communication process and how it influences consumer decisions. The overriding objective is to provide a sophisticated and thoughtful approach to the management of advertising and promotion activities. The course draws heavily on the extensive research in consumer behavior and social psychology. Special attention is given to ethical considerations in developing the communication process. Students conduct special projects in observational research, critical analysis of advertising, the internet, and media planning. Students complete a comprehensive advertising campaign. Prerequisite: BA 220. Offered every semester. Three credits.
BA-333	SPORTS MARKETING	This course addresses the diverse and rich nature of marketing athletes, teams, leagues, and special events. The primary objective is to cover relevant issues in designing and integrating marketing strategy. In addition to planning the sports marketing mix (product, place, promotion, and price), students are exposed to the increasing globalization of sport, current research in the area of sports marketing, and careers in sports marketing. Extensive treatment is given to understanding consumers as spectators and participants. Prerequisite: BA 220. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-335	INTERNET MARKETING	An exploration of various potential applications of Internet marketing in addition to its obvious role of inducing sales or generating sales leads. Topics include the role of electronic commerce in the marketing mix, advantages of using the Internet as a marketing tool, the ethical and legal constraints of Internet marketing, and creative strategies for implementing Internet marketing campaigns. Current publications, online computer exercises, and class discussions are used to examine marketing via the Internet. Prerequisite: BA 220. Offered spring semester. Three credits.
BA-336	ESSENTIALS OF SELLING	An overview of the role of the sales manager, both at headquarters and in the field, in managing people, resources, and functions of marketing. The challenges of forecasting, planning, organizing, communicating, evaluating, and controlling sales are analyzed. In addition, the changing role of the customer is examined and sales techniques to meet such changing market demands are evaluated. Prerequisite: BA 220. Offered spring semester. Three credits.
BA-340	BUSINESS LAW	The course provides the student with an intensive analysis of contract and sales law, as well as the study of bailments and personal property. Legal sources, the court system, torts, and criminal law will be explored. U.C.C. sections on negotiable instruments, banking and secured transactions are studied. Federal bankruptcy, real property and estate planning are presented. A focus on business organizations includes agency, partnerships, limited partnerships, and corporations. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-345	ENVIRONMENTAL LAW	<p>This course presents the case for government intervention at the federal, and to a lesser extent, on the state and local levels to protect the environment as an invaluable public or collective good. The materials presume that water, air and land pollution must be controlled and mitigated, and that the authority of the state must be put behind these efforts through the activity of agencies such as the Environmental Protection Agency and the Pennsylvania Department of Environmental Resources. However, intervention must be fair and the policies and procedures used must incorporate notions of due process. Nor must it stifle the productive capacity of private industry, or private property in general. Speakers from various agencies will be invited to present their perspectives and functions. Cross-listed as PS 390. Offered fall semester. Three credits.</p>
BA-350	STATISTICS I	<p>This course is an introduction to the study of statistics emphasizing descriptive and inferential statistics. Topics include graphical presentation of data, summary descriptive measures (e.g., mean, median, mode, variance, and standard deviation), statistical sampling, probability, probability distributions, expected value, the normal distribution, statistical estimation, hypothesis testing, regression and correlation. Students develop operational and presentational skills in computer applications through the use of statistical and spreadsheet programs. Offered fall semester. Three credits.</p>
BA-351	STATISTICS II	<p>The course explores multiple regression and correlation, two-sample inferences, non-parametric statistics, analysis of variance, time series analysis, and index numbers. Use of statistical and spreadsheet programs are an integral part of the business statistics curriculum. Prerequisite: BA 350. Offered spring semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-353	INTERNATIONAL FINANCE	The course covers the following topics: recent developments in international financial markets, the utilization of foreign exchange and derivative security markets, exchange rate determination, international asset portfolio theory, and financial risk management strategies. Cross-listed as EC 353. Prerequisite: EC 102, BA 320, and BA 351 or EC-360. Offered spring semester. Three credits.
BA-362	INVESTMENTS I: SECURITIES	This course is designed to acquaint the student with the general principles of investment, investment analysis, and portfolio management. Modern portfolio theory, investment timing and techniques for analyzing investment selections are considered. Prerequisite: BA 320. Offered every semester. Three credits.
BA-363	INVESTMENTS II: DERIVATIVES	Topics include: the alternative trading strategies; the valuation of options; the efficiency of option markets; commodity futures; spot, forward and future prices; empirical evidence on price relationships; hedging and speculation; the portfolio approach; risk and return on futures contracts; interest rate futures; alternative forward loans; options on futures; and currency futures. Prerequisite: BA 320. Offered spring semester. Three credits.
BA-380	CONSUMER BEHAVIOR	The purpose of this course is to study human responses to products and services by linking the upstream conceptual foundations in consumer psychology with its downstream marketplace applications. Accordingly, the extant research in social psychology will guide the development of marketing strategies. Special attention is given to the scientific method in cognitive psychology. Ethical issues surrounding consumer research are interwoven throughout the course. Students will conduct an experimental research project including hypothesis development, experimental design, data collection and hypothesis testing, and interpretation. This course provides dedicated workshops in SPSS software. Prerequisites: BA 220. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-385	FINANCIAL INSTITUTIONS	The nature and role of financial institutions in the economy. Topics include interest rate structure, regulation, financial markets, and asset and liability management of various types of financial institutions. Emphasis is placed on the relationship between theory and practice. Prerequisite: BA 320. Offered fall semester. Three credits.
BA-386	CULTURE IN OPERATIONAL EXCELLENCE	This course will focus on the cultural characteristics that are required for a successful and sustained implementation of Operational Excellence in an organization. During the course we will explore more deeply what makes up culture, how culture can be modified and what characteristics are necessary for a culture to support a continuous learning organization. During the second half of the course we will review a methodology to implement these cultural concepts within an organization. We will study how this methodology can lead to an organization that is nimble, efficient, customer-focused and constantly learning. The student will be able to take with them techniques to begin the introduction of Operational Excellence in their organization. Three credits.
BA-395	GLOBAL MARKETING	This course is an upper-level, managerially-oriented course that offers a systematic treatment of marketing on a global scale. The purpose of the course is to examine the specific issues involved in entering overseas markets and conducting global marketing operations. Special attention is given to analyzing the global economic environment, targeting global markets, sourcing and producing internationally, formulating global marketing strategies, and implementing global marketing mixes. Students are exposed to current events in the Wall Street Journal and participate in case studies and simulations. Prerequisites: BA 220. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-397	MARKETING RESEARCH	This course introduces students to the descriptive, diagnostic, and predictive roles of marketing research by examining both the substantive and technical domains of the marketing research process. Special attention is given to the survey method. The theory driving the design of this course maintains that one must carry-out research in a field setting to fully understand the processes involved in research. Thus, students will conduct a marketing research project including problem definition, design, data collection, analysis, and interpretation. This course also Business Administration - 41 42 - Business Administration builds on the statistical foundations obtained in BA 350 and provides dedicated workshops in EXCEL and SPSS. Prerequisites: B+G169A 220 and BA 351. Offered fall semester. Three credits.
BA-400	ADVANCED ACCOUNTING	Topics include: income presentation and interim reporting, disclosure of earnings per share and segmental data, business combinations and consolidated statements, partnership ownership changes and liquidation governmental accounting, accounting for non-profit organizations, estates and trusts and insolvency. Prerequisite: BA 201. Offered spring semester. Three credits.
BA-405	AUDITING	This course explores the field of auditing and public accounting as a career. Topics include conducting and concluding an audit, working papers, internal control and evidence, and the audit of selected groups of accounts. Prerequisite: BA 200. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-406	FORENSIC AUDITING	<p>It is estimated that Companies lose, on average, 5-7% of their revenues to fraud schemes each and every year. This course will focus on the 'Red Flags' of fraud and effective Risk Management techniques to counter fraud. Students will be introduced to various Forensic Auditing concepts and provided opportunities in a case study setting to apply these concepts to recognize fraud scenarios within various accounting and financial applications such as Financial Reporting, Accounts Payable, Payroll and IT. Significant well known frauds such as Enron, Worldcom, Tyco and our own local LeNature will be studied for clues on how to apply forensic applications to early warning signals to detect frauds before they grow larger. As trained 'CSI' professionals, successful students will learn how to apply professional skepticism and a questioning mind to identify signs of fraud. Prerequisite: BA 405. Offered spring semester. Three credits.</p>
BA-415	MERGERS AND ACQUISITIONS	<p>This course, Mergers and Acquisitions (M&A), will focus on three general areas. The first is the role M&A plays in corporate America as companies use M&A to achieve short and long-term strategic plans. The second area of focus will be examining and analyzing the strategic business processes that drive M&A activity. The final area of focus is corporate and financial restructuring that leads to the sale of nonstrategic or underperforming business assets. Offered spring semester. Three credits.</p>
BA-420	ACCOUNTING INFORMATION SYSTEMS	<p>This course examines accounting systems as an integral component of a management information system. The student will obtain an understanding of accounting systems theory, information theory, relational databases and system analysis. The course will also include a detailed examination of the SAP Business One application software. Prerequisite: Junior status or permission of instructor. Offered spring semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-425	STRATEGIC MARKETING	<p>This senior-level course emphasizes the decisions that marketing managers face in their efforts to bring together the objectives and resources of their organizations with the needs and opportunities in the market place. Building on the fundamentals of marketing and economics, special attention is given to the marketing decisions that students are most likely to confront in their careers. The centerpiece of the course is a marketing simulation. Teams of students will be responsible for the analysis, planning, implementation, and control of an on-going firm. Prerequisites: BA 220, BA 330, BA 350. Offered spring semester. Three credits.</p>
BA-440	GOVERNMENT AND NOT-FOR-PROFIT ACCOUNTING	<p>This course focuses on the accounting, financial reporting and auditing issues relevant to the governmental and not-for-profit entities. Topics include the budgeting process (i.e., the recording of the budget and transactions) and the preparation of various statements for governmental units and not-for-profit entities. Additional topics will include the standards of the Government Accounting Standards Board (GASB), the standards of the Financial Accounting Standards Board (FASB), and auditing issues of the 'Single Audit'+G177 approach as set forth in OMB circular 133. Prerequisite: Senior status or permission of instructor. Offered fall semester. Three credits.</p>
BA-470	INTERNATIONAL ACCOUNTING	<p>This course introduces the global nature of accounting in business. The course examines a variety of topics including: the comparative study of accounting concepts and reporting in various countries, international accounting standards, accounting problems of multinational corporations, and US GAAP requirements for the translation of foreign financial statements. Prerequisite: Senior status or permission of instructor. Offered spring semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-485	CFA REVIEW LEVEL I	This course serves as a preparation for the Chartered Financial Analyst Exam Level I. Course content focuses on the Candidate Body of Knowledge, which encompasses the following ten areas: 'ethical and professional standards, quantitative methods, economics, accounting and corporate finance, global markets and instruments, valuation and investment theory, analysis of fixed income securities, analysis of equity investments, analysis of alternative investments, and portfolio management.' Prerequisite: Second semester senior business majors or continuing education students with BA/BS in hand. In order to take the CFA exam in the summer, you must graduate within six months of the exam; thus, Juniors may take the course, but are not eligible to take the exam. Offered spring semester. Three credits.
BA-488	PORTFOLIO THEORY	This course focuses on portfolio management decisions and strategy; the specification and evaluation of asset management; and the evaluation of portfolio performance. This course will include studies of Mutual Funds and Hedge Funds and will integrate tools acquired in Investment I and Investments II. Prerequisite: BA 361. Offered fall semester. Three credits.
BA-489	VALUATIONS AND MODELING	This course presents a set of valuation tools (such as DCF) to properly value companies. The course formally introduces financial modeling, a coveted skill in the modern business world. Prerequisite: BA 362. Offered spring semester. Three credits.
BA-491	OPERATIONAL EXCELLENCE IN THE SERVICE INDUSTRY WITH HEALTHCARE PROFESSIONS	This course examines the following topics: challenges facing healthcare, concept of waste and quality in the healthcare environment, application of the Toyota Way to the healthcare industry, and building the healthcare industry of the future. Prerequisite: Junior status. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-492	OPERATIONS MANAGEMENT	This course provides an overview of Lean Manufacturing, the Six Sigma Process, the Toyota Production Process, and the Total Quality Management philosophies of continuous improvement of a process and of process variation. For accounting students, this course will include applications to managerial accounting, auditing, and information systems. Prerequisite: Junior status or permission of instructor. Offered every semester. Three credits.
BA-493	SUPPLY CHAIN MANAGEMENT	This course is designed to help the student acquire an understanding of the most current practices being implemented by businesses as they compete to bring to the market place their products and services in an ever more demanding global economy. Students will be introduced to new, and sometime unconventional, tools companies are currently using in an effort to delete inefficiencies from their manufacturing, expenditure and revenue cycles by improving supply chain relationships. Prerequisite: Junior status. Offered fall semester. Three credits.
BA-494	QUANTITATIVE METHODS, QUALITY AND PROBLEM SOLVING IN OPERATIONAL EXCELLENCE	This course focuses on the quantitative tools utilized in operational excellence. Tools include check sheets, Pareto charts, cause and effect diagrams, run charts, histograms, scatter diagrams, control charts, etc. Students review measures of quality and the implementation of quality improvement techniques. Students also devote a large measure of time to operational excellence problem techniques. Prerequisite: Statistics I or permission of instructor. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
BA-495	BUSINESS POLICY AND STRATEGY	<p>This is the capstone course for all business majors and as such covers aspects of the McKenna school curriculum. The class covers the field of strategic management. This course utilizes a multiperformance approach. Each student participates in a simulation where teams operate and control every aspect of a corporation. Each corporation then competes in this virtual reality, utilizing every business course they have taken in various decisions that are required. Students are not only expected to understand the role various levels of management play in strategic planning and control, but are required to demonstrate their abilities throughout the simulation. The course also utilizes case studies to give real-life examples of strategic situations. Students must be able to conduct an internal and external analysis (SWOT, 5 Forces, etc) of the company, which includes an analysis of cultural and political issues. Students must be adept at creating and presenting business applications, cases, etc. on power point technology. Students must demonstrate a fluid facility with major presentation technology, including overhead CD rom, VCR, DVD, Internet, Microsoft PowerPoint and Excel, Blackboard, and Smart Board technology. Prerequisite: Senior status or BA-386. Every semester. Three credits.</p>
BA-498	TOOLS, TECH. & METHODS FOR OE	<p>This course provides the necessary tools, techniques and methods to begin transforming an organization towards operational excellence. The body of knowledge covered by this course is centered on the application of the 4P model of the Toyota Production System, which includes Philosophy, Process, People and Partners and Problem Solving. As you become proficient in tools and gain a deeper understanding of the 4P model, you will be prepared to play a critical role in an organization's journey towards operational excellence. Required text: The Toyota Way Fieldbook: A Practical Guide for Implementing Toyota's 4Ps. Prerequisite: BA 386. Offered fall semester. Three credits.</p>
BA-500	INDEPENDENT STUDY--BUSINESS ADMINISTRATION	<p>May be repeated. Offered every semester. Variable credit.</p>

COURSE	TITLE	COURSE DESCRIPTION
BA-525	GLOBAL EXPERIENCE	Spend your spring break in a city abroad. The curriculum varies according to the city visited, but focuses on the various business and cultural themes. Offered spring semester. Two credits.
BA-550	BUSINESS INTERNSHIP	This course pertains to Business Administration Internships where work experience is utilized to extend the student's learning experience. Students are employed in an area related to their academic endeavor. The purpose of the program is to integrate academic studies and employment activities. Offered every semester. McKenna School students have an upward limit of six credits for internships. Pass/fail only. Variable credit up to three credits.
CH-00X	CHEMISTRY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
CH-101	GENERAL CHEMISTRY I	A study of chemical principles including atomic structure; chemical bonding; types of chemical reactions; stoichiometry; solution chemistry; and chemistry of the elements. Offered fall semester. Three credits.
CH-101F	GENERAL CHEMISTRY I	FIRST YEAR SEMINAR. A study of chemical principles including atomic structure; chemical bonding; types of chemical reactions; stoichiometry; solution chemistry; and chemistry of the elements. Four credits.
CH-102	GENERAL CHEMISTRY II	A study of chemical principles related to quantitative chemical analysis. Topics include the nature of liquids and solids; chemical kinetics; equilibrium; thermodynamics; acids and bases; precipitation reactions; electrochemistry; and nuclear reactions. Prerequisite: CH 101. Three credits.
CH-103	GENERAL CHEMISTRY I LABORATORY	Laboratory studies related to the principles in general chemistry with emphasis on quantitative measurements. Must be taken simultaneously with, or after successful completion of CH 101. Offered fall semester. One credit.

COURSE	TITLE	COURSE DESCRIPTION
CH-104	GENERAL CHEMISTRY II LABORATORY	Laboratory studies related to the principles covered in CH 102. Must be taken simultaneously with, or after successful completion of CH 102. One credit.
CH-114	ESSENTIALS OF CHEMISTRY	This course is designed for students interested in pursuing science majors at Saint Vincent who have very limited prior experience with chemistry concepts and math skills. Topics will include atomic structure, chemical and physical properties of materials, changes in matter, bonding, and intermolecular forces. Particular attention will be given to developing important mathematical skills and student proficiency in practices of science such as using representations/models and working with scientific explanations. No prerequisite. Must be taken simultaneously with CH 111. Offered fall semester. Three credits.
CH-114F	ESSENTIALS OF CHEMISTRY	FIRST YEAR SEMINAR. This course is designed for students interested in pursuing science majors at Saint Vincent who have very limited prior experience with chemistry concepts and math skills. Topics will include atomic structure, chemical and physical properties of materials, changes in matter, bonding, and intermolecular forces. Particular attention will be given to developing important mathematical skills and student proficiency in practices of science such as using representations/models and working with scientific explanations. No prerequisite. Must be taken simultaneously with CH 111. Offered fall semester. Three credits.
CH-116	ESSENTIALS OF CHEMISTRY LAB	This laboratory course complements CH 110 by engaging students with experiments that utilize chemical concepts examined in CH 110. In addition to developing foundational laboratory skills important in a variety of science courses, CH 111also focuses on developing student proficiency in practices of science important to lab work such as planning and implementing data collection strategies as well as performing data analysis and evaluation of evidence. No prerequisite. Must be taken simultaneously with CH 110. Offered fall semester. One credit.

COURSE	TITLE	COURSE DESCRIPTION
CH-216	QUANTITATIVE ANALYSIS	This course covers topics in chemistry such as titrations, potentiometry, volumetric analysis, ion specific electrodes, absorption spectroscopy, and chromatography. Prerequisite: CH 102. Offered spring semester. Three credits.
CH-218	QUANTITATIVE ANALYSIS LABORATORY	This course contains laboratory experiments that are related to the principles covered in CH 216. Must be taken simultaneously with, or after successful completion of CH 216. Offered spring semester. One credit.
CH-221	ORGANIC CHEMISTRY I	The basic principles of the chemistry of carbon compounds are developed with emphasis on nomenclature, physical properties, spectroscopy, structure, reactions, mechanisms, and synthesis. Prerequisites: CH 102, 104 . Offered every year.
CH-222	ORGANIC CHEMISTRY II	The basic principles of the chemistry of carbon compounds are developed with emphasis on nomenclature, physical properties, spectroscopy, structure, reactions, mechanisms, and synthesis. Prerequisites: CH 102, 104 . Offered every year. Three credits each semester.
CH-223	ORGANIC CHEMISTRY I LABORATORY	This laboratory complements CH 221-222 by introducing the basicorganic laboratory techniques of synthesis, isolation, and analysis, including chromatography and infrared and nuclear magnetic resonance spectroscopy. Emphasis is placed on developing microscale techniques. Students are encouraged to work more independently as the year progresses. Must be taken simultaneously with, or after successful completion of CH 221-222, respectively. Offered every year. One credit each semester.
CH-224	ORGANIC CHEMISTRY II LABORATORY	This laboratory complements CH 221-222 by introducing the basicorganic laboratory techniques of synthesis, isolation, and analysis, including chromatography and infrared and nuclear magnetic resonance spectroscopy. Emphasis is placed on developing microscale techniques. Students are encouraged to work more independently as the year progresses. Must be taken simultaneously with, or after successful completion of CH 221-222, respectively. Offered every year. One credit each semester.

COURSE	TITLE	COURSE DESCRIPTION
CH-228	INTRODUCTION TO BIOCHEMISTRY	<p>This course is designed to provide an overview of modern biochemistry for chemistry majors and other students with minimal background in biology. The chemistry of amino acids, basic principles of protein structure, enzyme kinetics, lipids and membranes, intermediary metabolism, and nucleic acid chemistry is covered. No previous background in biology is necessary. This course is not intended for students pursuing a career in the health professions.</p> <p>Prerequisites: CH 221-224. Offered spring semester of odd-numbered years. Three credits.</p>
CH-231	PHYSICAL CHEMISTRY I	<p>A study of the laws and theories used by chemists to describe, interpret and predict physical properties and chemical changes. Topics discussed include thermodynamics, kinetics, quantum mechanics, and spectroscopy.</p> <p>Prerequisites: CH 222-224 with grade of C- or better; PH 111-114; MA 111- 113. Offered every year. Three credits each semester.</p>
CH-232	PHYSICAL CHEMISTRY II	<p>A study of the laws and theories used by chemists to describe, interpret and predict physical properties and chemical changes. Topics discussed include thermodynamics, kinetics, quantum mechanics, and spectroscopy.</p> <p>Prerequisites: CH 222-224 with grade of C- or better; PH 111-114; MA 111- 113. Offered every year. Three credits each semester.</p>
CH-233	PHYSICAL CHEMISTRY I LABORATORY	<p>In this laboratory, students conduct experiments that are based on physical chemical phenomena covered in CH 231 such as gas laws and thermodynamics. Thorough data analysis and report writing are also emphasized in this course. Must be taken simultaneously with, or after successful completion of CH 231. Offered fall semester. One credit.</p>
CH-241	INORGANIC CHEMISTRY	<p>An in-depth study of special topics in inorganic chemistry including molecular orbital theory, chemical bonding, point group symmetry, acid-base theories, and coordination and organometallic chemistry. Prerequisite: CH 222. Offered fall semester of odd-numbered years. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
CH-242	INSTRUMENTAL ANALYSIS	The emphasis in this course is on applications of instrumental analysis to all aspects of chemistry. Students will gain knowledge of the theory and usage of a variety of modern instrumental methods including spectrophotometry, spectroscopy, chromatography, and electroanalytical techniques. They will also gain experience in applying their knowledge in solving analytical problems. Prerequisites: CH 216 or CH 253. Offered spring semester. Two credits.
CH-251	PROTEINS AND METABOLISM	This course is concerned with how macromolecular structures selfassemble, chemical mechanisms of reactions that occur in living systems, and the molecular basis of cellular regulation. Protein structure/ function and metabolism are the central themes of this course. The specific objectives are to familiarize the student with the structure and function of amino acids/peptides/proteins, enzyme catalysis, and regulation, carbohydrate structure and function, and an overview of metabolism, synthetic/degradative pathways and their regulation. Prerequisites: CH 221-224; one year of general biology is strongly recommended. Offered fall semester. Three credits.
CH-252	NUCLEIC ACIDS AND MEMBRANES	This course focuses on two major themes, the structure and function of membranes and the biochemistry of nucleic acids. The topics covered will include: structures of lipids and membranes, membrane proteins, signal transduction, structure of DNA and RNA, DNA replication and repair, RNA synthesis, protein synthesis, and the biochemical basis for control of gene expression. Emphasis throughout the course will be on the molecular mechanisms and protein components involved in various structures and processes. Prerequisites: CH 221-224; one year of general biology strongly recommended. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CH-253	PROTEINS AND METABOLISM LAB.	This laboratory course is intended to expose the student to laboratory aspects of modern protein chemistry and expand on some material covered in CH 251. Students will carry out experiments illustrating physical properties of proteins, protein purification (including various forms of chromatography and electrophoresis), and enzyme kinetics/inhibition. Must be taken simultaneously with, or after successful completion of CH 251. Offered fall semester. One credit.
CH-254	NUCLEIC ACIDS & MEMBRANES LABORATORY	This laboratory course introduces students to experimental techniques used in the study of membranes and nucleic acids. Methods will include membrane structure and dynamics, ligand binding to DNA, DNA electrophoresis, and characterization of nucleic acid/protein complexes. Must be taken simultaneously with, or after completion of CH 252. Offered spring semester. One credit.
CH-276	ADVANCED ENVIRONMENTAL CHEMISTRY	This course will incorporate the study of the chemistry of air, water and soil in terms of both the natural and polluted environments. The topics covered will include: stratospheric ozone, chemistry of the troposphere, toxic organic chemicals, natural water chemistry, water treatment processes, and heavy metal contamination in soils. Prerequisite: CH 216. Offered fall semester of even-numbered years. Three credits.
CH-277	METHODS OF ENVIRONMENTAL ANALYSIS ANALYSIS	A laboratory course emphasizing the sampling, preparation, and analysis of water and air samples. The course is primarily laboratory based in which teams of students work on a set of environmental projects. Students are responsible for the planning, preparation, sampling, analysis, and reporting for each project. Each project will emphasize a different type of environmental matrix and different types of chemical analysis. Sample analysis will include use of atomic absorption spectrophotometry, chromatography, inductively coupled plasma spectrophotometry, turbidity, and conductivity. Prerequisite: CH 216. Offered fall semester of even-numbered years. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
CH-278	ADVANCED ENVIRONMENTAL CHEMIS LAB	In this laboratory course students will explore the concepts introduced in CH 276 such as air and water chemistry, sustainability, and alternative energy. Thorough data analysis and report writing are also emphasized. This course should be taken with or after successful completion of CH 276. Offered fall semester of even-numbered years. One credit.
CH-282	ADVANCED PHYSICAL METHODS	This course is an integrated laboratory that introduces advanced students to the physical and instrumental methods used by chemists. Students in this course will learn about (1) the integrated nature of chemical research, (2) a variety of advanced laboratory techniques, and (3) the methods of experimental design and report presentation. The laboratory experiments focus on atomic behavior, molecular structure and kinetics. Taken simultaneously with, or after CH 232 and CH 242. Offered every spring semester. Two credits.
CH-283	ADVANCED CHEMICAL METHODS LAB	This course is an integrated laboratory that introduces advanced students to a variety of contemporary topics in experimental chemistry. Students in this course will learn about (1) the integrated nature of chemical research, (2) a variety of advanced laboratory techniques, and (3) the methods of experimental design and report presentation. The laboratory experiments focus on advanced organic chemistry, inorganic chemistry, polymers, and materials science. Offered fall semester of odd-numbered years. Two credits.
CH-285	TEACHING CHEMISTRY	This course is designed to meet several requirements for chemistry certification. It is also designed to give students practical experience in preparing and teaching chemistry laboratories. In this course students will work with a chemistry laboratory instructor as a lab assistant. They will develop skills in laboratory preparation, management, and developing experiments. In addition, students will develop projects on the history of chemistry, household chemical safety, and laboratory safety. Offered fall semester. Prerequisite or co-requisite: ED 304. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
CH-300	RESEARCH SEMINAR I	This course will introduce the student to the research experience and will include an orientation to the library and use of reference materials. Students will be assigned articles to read and discuss. An introduction to writing and presenting a research proposal will be included. Students will be introduced to the procedure for maintaining a laboratory research notebook. Students must be available to attend CH 302 when outside speakers present seminars on selected topics in that course. Prerequisite: CH 231/233 or CH 251/253 with a grade of C- or better. Offered spring semester. One credit.
CH-301	RESEARCH LABORATORY	Independent study or investigation involving intensive work with faculty guidance in the laboratory and library. This course includes an assessment of cumulative laboratory skills. Prerequisite: CH 300. Offered fall semester. Two credits.
CH-302	RESEARCH SEMINAR II	Presentation of research work completed during the previous semester; the oral presentation is made after the thesis report has been written. Outside speakers may present seminars on selected topics. Prerequisite: CH 301. Offered spring semester. One credit.
CH-321	SPECIAL TOPICS	The purpose of this course is to introduce students to topics of contemporary interest in chemistry. Topics discussed are drawn from the following areas: organic and inorganic kinetics, stereochemistry, molecular orbital theory, spectroscopy, electrochemistry, solid state chemistry, polymer science, surface chemistry, and photochemistry. Prerequisites: CH 221-224. Offered fall semester of odd-numbered years. Three credits.
CH-325	METHODS IN CRIMINALISTICS	Criminalistics is the collection and examination of evidence of crime and is an application of many scientific disciplines. This laboratory provides an introduction to the methodologies and applications used in a forensic laboratory. Topics discussed include organic and inorganic chemical analyses of physical evidence, principles of serology and DNA analysis, identification of fresh and decomposed human remains, ballistics, fingerprint analysis, facial reconstruction, drug analysis, and forensic entomology. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
CH-350	INDEPENDENT STUDY--CHEMISTRY	Studies to be chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Variable credit.
CH-550	CHEMISTRY INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work, through internships, field work and cooperative programs. Students may or may not be paid depending on the site. May be repeated. Variable credit.
CA-00X	COMMUNICATION EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
CA-100	INTRODUCTION TO MASS MEDIA	This course introduces students to the theory, practice, analysis, and ethics of mass communication. Students learn about and discuss the influences and effects of mass media within American culture and the global marketplace. A combination of readings, written assignments, exams, and oral presentations provides students the opportunity to develop knowledge and skills in areas of communication, criticism, and argumentation. Offered every semester. Three credits.
CA-100F	INTRODUCTION TO MASS MEDIA	FIRST YEAR SEMINAR. This course introduces students to the theory, practice, analysis, and ethics of mass communication. Students learn about and discuss the influences and effects of mass media within American culture and the global marketplace. A combination of readings, written assignments, exams, and oral presentations provides students the opportunity to develop knowledge and skills in areas of communication, criticism, and argumentation. Offered every semester. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-110	INTRO. TO MEDIA INDUSTRY	<p>This course introduces the theory and practice of media industries such as public relations, movies, TV and advertising by considering the historical development of mass mediated forms of persuasion. Key topics include propaganda, the nature of public opinion, the rise of consumer culture, and the relative truth of advertising and public relations messages. The course provides a foundational knowledge of the themes and questions that continue to inform the advertising and public relations industries, preparing students for more advanced courses in media studies, advertising and public relations concentration. Offered every semester. Three credits.</p>
CA-110F	INTRO TO MEDIA STUDY	<p>FIRST YEAR SEMINAR. This course introduces the theory and practice of media industries such as public relations, movies, TV and advertising by considering the historical development of mass mediated forms of persuasion. Key topics include propaganda, the nature of public opinion, the rise of consumer culture, and the relative truth of advertising and public relations messages. The course provides a foundational knowledge of the themes and questions that continue to inform the advertising and public relations industries, preparing students for more advanced courses in media studies, advertising and public relations concentration. Offered every semester. Four credits.</p>
CA-111	PHOTO IMAGES: COMPOSING AND INFORMING	<p>This course provides students with artistic and documentary concepts and shooting strategies for use in creating still digital photo images. Students will apply those strategies to a one-week, shooting assignment in a foreign country or in a local environment during Spring Break. After Spring Break, each student will participate in classroom photo-critiques, selection, modification, printing, and framing of their photos. Offered spring semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
CA-111A	PHOTO IMAGES - COMP. & INFORM	This course provides students with artistic and documentary concepts and shooting strategies for use in creating still digital photo images. Students will apply those strategies to a one-week, shooting assignment in a foreign country or in a local environment during Spring Break. After Spring Break, each student will participate in classroom photo-critiques, selection, modification, printing, and framing of their photos. Offered spring semester. One credit.
CA-115	GLOBAL MEDIA ABROAD	Communications professor Dr. Jessica Harvey will lead an eight-day, one-credit course in London this summer! The course focuses on foreign media production, policy, and legislation. In addition, students will learn about the social and cultural forces that influence foreign media. The information will specifically focus on media located in London, from newspaper, radio, and television outlets. Students will visit the British Broadcasting Company, among other exciting course-related locations, and meet with local journalists. Students will be provided a reading packet prior to departure in May. On credit.
CA-120	PUBLIC PRESENTATION	Students learn to research, organize, and deliver public presentations with extemporaneous speaking technique. Students present informative, persuasive, group-persuasive, and impromptu speeches within a classroom setting. Students receive written and oral constructive critiques of their speeches based on clear evaluation criteria from their teacher and actively analyze and critique the speeches of their peers. Students learn how to amplify their speech with effective use of a variety of presentational aids. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-130	INTRO. TO DIGITAL PRODUCTION	This course provides students a broad introduction, both theoretical and practical, to the instruments and techniques used in modern visual communication, most notably digital video. Camera work, lighting, sound manipulation and non-linear editing will be studied and utilized to create one short-form video project for their portfolio. The skills learned in this introductory course provide a foundation for use in advanced courses and internships. Offered every semester. Three credits.
CA-140	INTERPERSONAL & ORGANIZATIONAL COMMUNICATION	Students learn the theory and practice of interpersonal communication among family, friends and peer groups as well as within business situations. Students will come to appreciate and recognize the use of nonverbal and verbal communication found within familial, peer, and organizational settings. The use of individual journal writing, group discussions, and short student presentations, will assist students in analyzing various situations, observations, and personal feelings. The ethics and civility of dyadic and mass communication is central to the application of communication theory while students also learn about conflict management, decision-making, and group skills through the lens of the philosophy of communication. Offered every semester. Three credits.
CA-200	FILM STUDIES	This course teaches the history, method, and art of the visual/aural language used by the creators of significant films that include dramatic, entertainment, and documentary genres. Selected examples of films are shown and analyzed based on criteria established in the textbook. The course requires students to write critiques and take regular quizzes and exams. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-201	COMM. RESEARCH METHODS	This course is designed to introduce students to the investigative tools used by communication scholars and practitioners outside of academia. The class will focus on the concepts and methods by which communication research is designed, conducted, interpreted, and critically evaluated. Along with course readings and tests, students will work on several small-scale research projects and research study analyses. Three credits.
CA-211	PHOTO IMAGES: COMPOSING & INFORMING	This course provides students with artistic and documentary concepts and shooting strategies for use in creating still digital photo images. Students will apply those strategies to a one-week, shooting assignment. Each student will participate in classroom photocritiques, selection, modification, printing, and framing of their photos. Offered spring semester. A digital camera is required for this course. Variable credit.
CA-224	COMMUNICATION ETHICS	In these postmodern times we have an opportunity to take a look at how we communicate and the decisions we make in regard to what we say, how we say it and the logic used to persuade others. Therefore, we need to identify and understand communication ethics as an entity unto itself. By examining philosophical and fictional readings from modern/postmodern times, as theoretical and narrative examples, we will explore the ethical choices made in regard to the messages conveyed and the media used in both public and private contexts. Three credits.
CA-230	WRITING FOR MEDIA	This course introduces students to various writing styles appropriate for a number of multimedia outlets. Students are trained in basic news and feature writing, as well as blogging and social media messaging. Students read and discuss examples of journalism and literature that exemplify superb storytelling in order to enhance their own writing. The course also develops skills in writing advertising copy, press releases and broadcast scripts. In addition to practicing several multimedia writing styles, students will learn Associated Press style and related media conventions. Prerequisites: CA 100 and 110. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-235	INTRODUCTION TO WEB DESIGN	This course will enable the student to utilize current industry software to develop and design websites that thoughtfully engage the web user. Students will learn the basic principles of design and will apply this knowledge when building their own websites. With their web project, students should be able to combine communicative, rhetorical, and visual knowledge with an understanding of navigation, content organization, and the common conventions of the web. Prerequisite: permission of Communication chair. Offered every semester. Three credits.
CA-240	PUBLIC RELATIONS STRATEGIES	Students build on the intellectual awareness, professional attitudes and personal aspirations developed in 100-level communication courses and during internships. Case studies from business, non-profit and governmental PR campaigns are reviewed for an understanding of the decision-making process within these entities. Research, writing, and presentation of a PR campaign in community, media, and government settings will be discussed. A final PR media kit is prepared by students to add to their portfolio documentation. The course provides a conceptual foundation for CA 415. Prerequisites: CA 100 and 110. Offered every semester. Three credits.
CA-245	DIGITAL MEDIA I: POST PRODUCTION	This course will study the modern approaches and advanced techniques used in film and digital video editing. Through readings and screenings, students will gain a greater understanding of the power of juxtaposing moving images. They will then apply these techniques through in-class editing assignments. They will conclude with a project to be included in their portfolio. Prerequisite: CA 130. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-250	ADVERTISING STRATEGIES	Continuing the discussion of the history of the ad industry, students learn how to collect and analyze various demographics via primary and secondary research. Examine and critique existing ad campaigns for best practices, effectiveness and social significance, based on strategy. Students will prepare portions of a mock integrated marketing campaign including client analysis, brand awareness, media choice, and creative suggestions. Prerequisites: CA 100 and 110. Offered every semester. Three credits.
CA-255	DOCUMENTARY FIELD PRODUCTION	Students will build upon their skills as field producers by examining camera, lighting and interviewing techniques used by documentary filmmakers such as Ken Burns, Albert Maysles, D.A. Pennebaker, Errol Morris and Michael Moore in their acclaimed productions. Through readings and screenings, students will gain a greater understanding of how one can use a video camera to communicate a message, and that quality is not based solely on technology but on the informed application of technology. Prerequisites: CA 130. Offered spring semester. Three credits.
CA-281	CHILDREN AND THE MEDIA	At a very early age, children are inundated with mediated messages that shape their developmental trajectory, relationships with others, and perceptions of the world. As media usage among this age group steadily increases, it is essential that students understand the role of media in the lives of children. This course is designed to introduce students to a variety of issues that relate to children and the media, including the history of children's media, developmental and individual differences of users, cognitive and behavioral media effects (e.g., fear responses, educational learning, body image, aggression), media content developed for children, public policy, and social concerns (e.g., media education). Students will also utilize the archives within the Fred Rogers Center for Early Learning and Children's Media to learn about the valuable work of Fred Rogers, a pioneer in children's educational media. Offered spring 2013. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-285	ELECTRONIC MEDIA	Students will learn the fundamentals of computer graphics, image correction and enhancement, and electronic print publication. In addition to understanding current software programs within the field, students will be taught the basics of layout and design. This course will also include elements of marketing and advertising. Prerequisites: Sophomore standing or above; Communication majors should complete CA 110 prior to CA 285. Permission of Communication chair required. Offered every semester. Three credits.
CA-309	DIGITAL CULTURE	This course will examine how digital media has affected the way we communicate. Students will trace the history of digital media creation back to one of its earliest innovators, George Lucas, in order to further understand what trends could impact the future of this new style of production. They will also examine what effects social media and numerous viral videos have had on our culture, and will develop their own new media strategies by creating their own viral video campaign. Prerequisites: CA 245 or CA 255. Offered fall semester. Three credits.
CA-310	HD VIDEO PRODUCTION	This course provides students with information and experience in HD field production and editing which can qualify them for positions in professional HD media production organizations. Students learn how to use a state-of-the-art HD camera and advanced HD production techniques. Students review and organize camera footage, interpret and write scripts, create storyboards, and mix audio and video on an advanced non-linear editing system. Students choose from a variety of short-format video production assignments and are required to work with and produce a shortformat video for a real client. Formerly titled HDTV Production. Offered fall semester. Three credits.
CA-350	INDEPENDENT STUDY -- COMMUNICATION COMMUNICATION	Students engage in a research project of particular interest to the student. Advisor and faculty approval is necessary. Juniors and seniors only. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
CA-360	SPECIAL TOPICS IN COMMUNICATION	This course explores specific problems, issues, and developments in communication in a professor's field of scholarly expertise, and may include such topics as communication ethics, creativity & visual communication or intermediate web design, for example. Prerequisites: junior or senior standing. Offered at various times, not every semester. Three credits.
CA-381	APPROACHES TO RESEARCH ON CHILDREN & MEDIA	This seminar focuses on research in the area of children and the media and is designed to provide students with an in-depth understanding of children's media use, media content directed towards children, and ways that the media affect youth. Students will also learn different methods for conducting research and program assessment in this area. Course readings include foundational studies and texts that have influenced the field of children and media, as well as readings related to research methodology. Students will be investigating topics of interest through independent research projects throughout the semester. Students will also utilize the archives within the Fred Rogers Center for Early Learning and Children's Media as content for a group research project. Three credits.
CA-415	CREATIVE CAMPAIGNS CAPSTONE	In this Capstone course students have the opportunity to utilize theory and concepts learned in previous courses to produce a complete Integrated Marketing Communication campaign. Students develop tools for performing, primary and secondary research, as well as market, product, and company analyses. Individual and teamwork are explored in this course to prepare students for industry. Prerequisites: CA 120, CA 230, CA 240 or CA 250 and CA 285 is suggested (not required). Seniors only or juniors with permission of instructor. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CA-435	DIGITAL MEDIA CAPSTONE	This seminar style course will allow students to prepare for a future in media. They will create a portfolio or demo reel using personal projects created for previous classes, strengthen their prospects for careers and graduate school, and work as a team to create a final project for a group or organization on campus. Prerequisites: CA 245 or 255 and 309 is suggested (not required). Offered spring semester. Three credits.
CA-440	CRITICISM OF MEDIA AND SOCIET	This upper-level seminar for all communication majors serves to enhance students' critical, ethical, and communicative response to the maelstrom of media images and content that continuously confronts us throughout our daily lives. Students employ prominent contemporary rhetorical perspectives to evaluate a variety of mass media (including television, film, novels, advertising, Internet, etc.) through in-class presentations, discussions, written assignments, final examination, and a series of critical essays. These activities enrich students' abilities to understand the form, content, and context(s) of any communication, and subsequently, to become more effective and ethical communication professionals. CA juniors and seniors only. Offered every semester. Three credits
CA-510	PRACTICUM	Depending on the student's area of concentration, a communication major may be part of an experiential learning environment or team, working to produce a product, such as SVC-TV productions, brochure/PR creative work or Internet websites for on campus entities. The student may also seek other work in the Communication Department by approval of the student's academic advisor. Junior or Senior only or by approval of academic advisor. Variable credit.
CA-550	COMMUNICATION INTERNSHIP	Students work in a supervised and evaluated internship enabling communication majors to enrich their academic experience with involvement in an appropriate career organization or facility. Internship must be completed before the beginning of senior year, unless permission received from chair. Three credits of internship are required for the major. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
CLS-00X	CRIMINOLOGY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
CLS-101	INTRODUCTION TO CRIMINOLOGY	Study of the contemporary criminal justice system, major systems of social control and their policies and practices; victimology; juvenile justice; comparative criminal justice of the field. Three credits.
CLS-101F	INTRODUCTION TO CRIMINOLOGY	FIRST YEAR SEMINAR. Study of the contemporary criminal justice system, major systems of social control and their policies and practices; victimology; juvenile justice; comparative criminal justice of the field. Four credits.
CLS-155	AMERICAN JUDICIAL SYSTEM	This course examines the historical background, the traditions, and the legal principles that underlie the Courts as an integral component of the American System of Criminal Justice. Both differences and similarities inherent within the State and Federal Court processes will be analyzed, and the procedures through which the Criminal Courts uphold the basic rights and liberties of all U.S. citizens, both victims and the accused, will be explored. The dynamics of the judiciary will be considered through the examination of the critical foundations of the judicial process. A primary focus will be placed upon understanding the respective roles played by the Judges, Prosecuting Attorneys, Defense Counsel, Police and Probation Officers, and other Court-related personnel in the criminal court process. Three credits.
CLS-176	PROSECUTION OF URBAN STREET GANGS	An examination of the complex sociological, psychological, and criminological dimensions of criminal street gangs, gang membership, and the problems of law enforcement in prosecuting these entities. This course will cover a wide spectrum of topics that interrelate to this complex issue in law enforcement. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CLS-205	CRIMINAL TRIAL EVIDENCE	Evidence uncovered by the finest detective or the most sophisticated CSI will be of little use to a prosecutor if it is not admissible in the trial of a criminal case or does not satisfy the burden of proof the law imposes. This course explores the basics of the language of a criminal trial: the rules and principles of evidence. What is "relevant"? When will "relevant" evidence be excluded by the rules of hearsay or the defendant's right to confront witnesses? The nature and permissible scope of expert testimony will be an important aspect of the course. How does forensic science translate into court testimony? What other subjects of expert testimony do/should courts recognize? Finally, what is the meaning of "proof beyond a reasonable doubt"? Why are jury verdicts in some celebrated cases only understandable by reference to this basic principle of the criminal process? Students will engage in trial simulations to illustrate various points of the course material. Three credits.
CLS-215	JUVENILE JUSTICE	Study of causative factors of juvenile delinquency and the treatment of juvenile offenders. Specific topics include gang subcultures, peer pressure, juvenile offenses, and the juvenile justice system. Three credits.
CLS-227	CRIMINAL LAW AND PROCESS	The primary objective of this course is to present to the student basic principles and methods of the American Criminal Justice System. It will discuss aspects of crime, means of social control, law enforcement, and the operation of criminal courts. (Formerly PS 227) Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CLS-230	CONSTITUTIONAL CRIMINAL PROCEDURE	This course will engage the student in a critical analysis of the limitations imposed on the gathering and presentation of evidence in criminal cases that are imposed by 4th, 5th and 6th Amendments to the United States Constitution and parallel provisions of the State Constitution. It will involve an exploration of the origins and evolution of the exclusionary rule and the particular grounds for exclusion mandated by application of those Constitutional principles. The course will also seek to give the student a practical perspective on the overall process of a criminal case from pre-trial litigation through final appeal, including the process under which the law permits the government to seek the imposition of the death penalty and the limitations imposed upon that by the 8th Amendment. Three credits.
CLS-245	CORRECTIONS, PROBATION AND PAROLE	Study of the history, theory, practice and legal environment of incarceration, diversion, community-based correction, and treatment of offenders. Three credits.
CLS-266	THE DEATH PENALTY	This course is meant to give the students an in-depth insight into the phenomenon of capital punishment throughout history and as it is specifically applied today in the United States. The material will be presented from three distinct approaches: the sociological/criminological background and theory of the death penalty, the penological dimension of the carrying out of executions by prison officials and the differing challenges that presents from administering life sentences without parole, and the legal framework in which the death penalty may be applied as determined by the courts and legislature. The course will be team taught by the faculty of the CLS Program whose specialized interests correspond to the perspectives the course will present. Course materials will be distributed on line. Extensive class discussion is anticipated. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CLS-269	AGENCY MANAGEMENT	An analysis of the administration and management of criminal justice organizations to include their structure and environment, problems of communication, motivation of personnel, job design, leadership, personnel supervision and evaluation, occupational socialization, organizational conflict, decision making, organizational effectiveness and changes and innovation in administration and management. Three credits.
CLS-305	VIOLENCE AND VICTIMOLOGY	The course introduces the leading theories and research in the area of violent criminal behavior and victimization. A special emphasis is on violent patterns and victimization over time, victim-offender relationships, and the experience of victims in the criminal justice system. Addresses major violent crimes such as murder, rape, robbery, assault, and serial killing. Three credits.
CLS-320	WHITE COLLAR CRIME	This course considers crimes committed by corporations as well as white-collar criminals: how such crimes are defined; who commits or is victimized by them; which moral, ethical, legal and social contexts promote them; and how society responds. Procedural and policy considerations in the investigation and enforcement of relevant statutes will also be covered, including the concept of legal privilege, the role of the grand jury and other pretrial processes, evidentiary questions, litigation strategies, and potential sanctions and other punishments. Prerequisite: CLS 101. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CLS-340	PRINCIPLES OF HOMELAND SECURITY	<p>Students will gain an understanding of homeland security by analyzing the various security principles and policies that establish a foundation upon which to organize U.S. security efforts as a nation. Students will study how the national strategy aligns and focuses homeland security functions within critical areas such as: (1) intelligence and warning, border and transportation security, domestic terrorism; (2) protecting critical infrastructure and defending against catastrophic terrorism; and (3) emergency preparedness and consequence management. The first area focuses primarily on preventing terrorist attacks, the second area on reducing the nation's vulnerabilities, and the third on minimizing the damage and recovery from the aftermath of terrorist attacks. Prerequisite: CLS 101. Three credits</p>
CLS-344	FINANCING CRIMINAL ORGANIZATIONS	<p>Large scale international criminal organizations require financing in the same way as any substantial legitimate business activity. This course is designed to analyze the ways in which large scale criminal organizations finance themselves, try to hide their sources of income and assets, and convert those assets into the means through which they continue to carry out their criminal activities. Consideration of law enforcement strategies to interdict and disrupt those financing channels will be considered. Three credits</p>
CLS-350	CRIMINOLOGY INDEPENDENT STUDY	<p>Independent investigation and research into a special topic for selected students. Topics are determined by both student and professor. Prerequisite: permission of faculty member and departmental chair. May be repeated. Variable credit.</p>

COURSE	TITLE	COURSE DESCRIPTION
CLS-355	SENTENCING	A true understanding of the criminal justice system requires the recognition that the vast majority of cases that enter the system are resolved without a trial. A huge percentage of the cases are either diverted into alternative, rehabilitative programs or are the subject of guilty pleas and the imposition of a sentence. The matter of sentencing is thus a focal point for much of the theory and practice of the criminal law. This course will discuss the process of sentencing, the various goals that sentencing is supposed to achieve, the interplay between courts and legislatures in the sentencing process, and the various schemes that federal and state systems use to achieve some predictability and consistency in the sentencing process. Consideration will be given to the phenomenon of mandatory minimum sentencing as well as the guideline schemes that are used in various jurisdictions to direct (and sometimes constrain) the traditional discretion of the trial judge in fixing a just sentence. (Three credits)
CLS-360	PREDICTION AND PREVENTION OF CRIMINAL CONDUCT	This course presents an analysis of high-profile criminals and showcases the empirical and theoretical data to support theories of criminality. Criminal behavior will be viewed through biological, psychological, social, and environmental perspectives. Violence and criminal behavior will be viewed on a developmental continuum. Contemporary issues will be discussed highlighting recent current criminal events that include competence, eyewitness testimony, criminal profiling, jury selection, false memory, and interrogation strategies. Students will be provided with the tools necessary to understand assessment procedures, determine preventative factors, and current treatment models that may help mitigate the causes and outcomes of crime and violence. (Three credits)
CLS-375	INTERNATIONAL CRIMINAL LAW	This course will focus on the structures used for the prosecution of international criminal sin multinational venues. Examination of international law as it impacts the substantive definition of crimes as well as the political and social dynamics of this expanding area of law will be developed. Occasional offering. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CLS-376	FEDERAL CRIMINAL LAW	An examination of the principle statutes utilized by the federal government to prosecute individuals for a wide variety of criminal activities focusing on organized crime prosecutions. Discussion of the Hobbs Act, the RICO Act and money laundering statutes and mail fraud and wire fraud will all be considered. Three credits.
CLS-377	ADDICTION AND CRIME	Examines the social issues and problems of alcohol and drug misuse in American society. Legal and illegal substances are considered, as are the causes of substance abuse and alternatives. The factors and theoretical perspectives of alcohol and drug abuse in America are discussed as well as the legal systems present in society and the impact these systems have on alcohol and drug use/abuse. Three credits.
CLS-380	CRIMINOLOGY OF FIREARMS	Examines the historical, societal, and legal aspects of firearms in American society. The Constitution and legal precedents are considered, as are changes in regulation over time. Questions concerning private ownership and crime rate trends will be discussed along with the factors and theoretical perspectives of gun violence in America. (Three credits)
CLS-404	ETHICAL DECISIONS AND DILEMMAS IN CRIMINAL JUSTICE	This course examines the major ethical dilemmas that confront criminal justice professionals throughout their careers. Students are exposed to the philosophical principles of ethical decision making. Students also examine issues-based, practical approaches to ethical issues found in all three branches of the criminal justice system – police, courts, and corrections. Policy issues are reviewed and students are encouraged to engage in discussions of key topics in professional ethics and the delicate balance between law and justice. Students enrolled in this course will begin to think about the impact and importance of ethical decision making by criminal justice professionals. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CLS-410	CRIMINOLOGICAL THEORIES	This course focuses on the study of crimes, criminals, causes of criminal behavior and victimization issues. Students explore how the classical, psychological, sociological, economic, biological and political theories of crime explain criminal behavior, and the impact of these theories on the work of the criminal justice system. Prerequisite: CLS 101, SO 204. Three credits.
CLS-440	CONSTITUTIONAL LITIGATION AND ANALYSIS	The course will focus on the art of litigating Constitutional issues. Selected topics in Constitutional Law (such as Equal Protection, Substantive Due Process, Free Speech, Establishment Clause, Commerce Clause) will be discussed from the perspective of forming effective arguments on both sides of a given problem. The topics will be developed in depth with a view to giving the student an appreciation of the nuances in each area. There will be a heavy emphasis on legal reasoning, analysis and argumentation. The course will conclude with the preparation of a brief and the presentation of oral argument to a panel of judges. A semester of Constitutional Law or some equivalent prior coursework is necessary. Formerly titled Advanced Constitutional Law. Three credits.
CLS-490	CRIMINOLOGY, LAW AND SOCIETY CAPSTONE PROJECT	This is the capstone course for justice studies students. It will focus on the integration of information learned from different courses with special focus on criminal law and legal issues, theories of crime, juvenile delinquency, law enforcement, corrections, ethics, forensic science, and research methods. This course will be offered to justice studies students in their final semester in which they receive their degrees. Prerequisite: Student must be in the last semester of their Criminology, Law, and Society course work, or receive permission of instructor. Three credits.
CLS-550	CRIMINOLOGY, LAW AND SOCIETY INTERNSHIP	Students may arrange to receive credit for employment experience in various non-college settings. It is also possible to have paid or unpaid professional work entered into the transcript as "no credit." Prerequisite: permission of the departmental coordinator. May be repeated. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
CS-00X	COMPUTING EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
CS-102	FUNDAMENTALS OF IT & COMPUTING	This course is for the student who wishes to be fluent in information technology (IT) and computer concepts. It is an introduction to the wide range of concepts, techniques, and applications of computer and network technologies. Emphasis is on the possibilities and limitations of Computer Science/Information Systems/Information Technology in personal, commercial, and organizational activities. Topics include history of computing, computer types, computer structure and operation, computer languages, human/computer interaction, program development, computer applications, basic networking, security, and computers in society. Offered fall and spring semesters. Three credits.
CS-102F	FUND. OF IT & COMPUTING	FIRST YEAR SEMINAR. This course is for the student who wishes to be fluent in information technology (IT) and computer concepts. It is an introduction to the wide range of concepts, techniques, and applications of computer and network technologies. Emphasis is on the possibilities and limitations of Computer Science/Information Systems/Information Technology in personal, commercial, and organizational activities. Topics include history of computing, computer types, computer structure and operation, computer languages, human/computer interaction, program development, computer applications, basic networking, security, and computers in society. Offered fall and spring semesters. Four credits.
CS-109	INTRO. TO VISUAL BASIC PROG.	An introduction to the Visual Basic programming language and the concepts and techniques of GUI programming. The syntax of Visual Basic, forms, properties, controls, variables, decision structures, functions, subroutines, and VBScript are covered. Offered spring semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-110	C++ PROGRAMMING I	An introduction to problem solving and computer programming. Topics include algorithms, program structure, input/output, modularity and parameters, control structures, data abstraction, arrays, text files, and structured techniques. Offered fall and spring semesters. Three credits.
CS-111	C++ PROGRAMMING II	A study of advanced programming techniques and applications continuing from the point where CS 110 ended. Elementary data structures and associated algorithms are examined. Topics covered include arrays, strings, file processing, classes, stacks, queues, linked lists, and recursion. Prerequisite: CS 110. Offered fall and spring semester. Three credits.
CS-170	DISCRETE STRUCTURES I	An introduction to the topics of discrete mathematics which are appropriate to computing. The major purpose is to help the student obtain some fluency in specific areas of mathematics and to encourage the use of the associated techniques within other computing courses. Topics to be covered include logic, sets, functions, simple proof techniques, algorithms, counting techniques, basics of graphs and trees, and simple finite state machines and grammars. Prerequisite: CS 109 or CS 110, MA 109 or MA 111. Offered fall semester. Three credits.
CS-171	DISCRETE STRUCTURES II	A continuation of CS 170 with an emphasis on the mathematical and theoretical foundations of computer science. Topics to be covered include proofs of correctness, recurrence relations and generating functions, algorithm analysis, computability theory (using Turing machines), complexity theory, and grammars. Prerequisite: CS 170 or MA 110 or MA 112. Offered spring semester alternate years (spring 2014). Three credits.
CS-205	WEBSITE DESIGN & PROGRAMMING	Topics include basic aspects of good web design, web page construction and introductions to scripting and programming languages that add functionality. This course is intended for both CIS majors and non-majors. Offered spring semester alternate years (spring 2015) Prerequisite: CS 109 or CS 110. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-214	INTRODUCTION TO MOBILE APPLICATION PROGRAMMING	This course will cover the basics of developing applications for mobile platforms such as the Apple iOS and Android devices. Differences between mobile and desktop computing will be discussed. Programming languages for the development of mobile software (Objective-C for Apple devices and Java for Android devices) will be introduced along with integrated development environments such as Xcode for iOS and Eclipse for Android. Students will complete projects in small groups and must pass exams individually. Offered fall semesters alternate years (fall 2014). Prerequisite: CS 109 or CS 110. Three credits.
CS-221	DATA STRUCTURES	The study of data structures and associated algorithms is developed in an object-oriented fashion. This course attempts to show the value of object-oriented design. Various implementations of data structures and the efficiency of the associated algorithms are discussed. Topics to be covered include stacks, queues, keyed tables, recursion, linked lists, binary trees, B-trees and other types of trees, sorting, searching, hash functions, and external sorting. Prerequisite: CS 111. Offered spring semester. Three credits.
CS-225	CYBERSECURITY	This course examines both the theory and practices that serve as the foundations of cybersecurity. Utilizing the CISSP Common Body of Knowledge as a foundation, fundamentals of access control, network security, risk management, cryptography, business continuity/ disaster planning, environmental security, software development security, and security architecture and design are introduced. Offered fall semester alternate years (fall 2014) Prerequisite: CS 102 or permission of the instructor. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-250	USER INTERFACE DESIGN	Good decisions involving the design of a user interface can lead to programs that are easier for end users to execute. Code that is written by programmers who are sensitive to ergonomic issues will execute faster, have fewer errors, require less training time and ultimately give its end user a greater sense of satisfaction. This course will discuss the many issues involving such human-computer interaction. In addition, course participants will program interface applications using VB .NET. Prerequisite: CS 111. Three credits.
CS-255	INTRODUCTION TO ARTIFICIAL INTELLIGENCE INTELLIGENCE	This course will present overviews of the roots of artificial intelligence, predicate calculus, the importance of search and search techniques, knowledge representation and knowledge-based problem-solving, the complexity of natural language and machine learning. In addition to other assignments, students will be required to complete projects using languages and techniques which will be introduced during the course. Offered on an irregular basis. Prerequisite: CS 111. Three credits.
CS-265	INFO. SYSTEMS MANAGEMENT	This course provides an introduction to management information systems, e-commerce, planning, and decision support systems explaining how information is used in organizations, the role of information technology professionals, and how information systems are used to an advantage in business settings. Social and ethical issues related to the design, implementation and use of information systems will be addressed. Basic information technology project management skills will be covered as well as the issues and challenges involved in managing an information services department and navigating organizational structures in the corporate world. Offered fall semester alternate years (fall 2013). Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-270	INTRODUCTION TO NUMERICAL COMPUTATION	An introduction to the algorithms of scientific computation and their application to problems in algebra and calculus. Topics covered include number representation, error analysis, programming techniques, function evaluation, solutions of nonlinear equations, solutions of linear systems, numerical integration, eigenvalues/eigenvectors, and solutions of differential equations. Prior programming experience is not required. Prerequisite: MA 109 or MA 111. Offered spring semester alternate years (spring 2014). Three credits.
CS-290	SPECIAL TOPICS	This course examines a topic of current interest in the field of computing. Prerequisite: CS 111 or permission of instructor. This course may be repeated as long as the topic is different. Offered on an irregular basis. Three credits.
CS-292	ENGINEERING & COMPUTER ETHICS	Study of ethical issues in the fields of engineering and computing: Topics include safety and liability, professional responsibility to clients and employers, whistle-blowing, codes of ethics, legal issues that relate to privacy, intellectual property rights, and cybercrime. The course also examines issues concerning the use and development of developing and emerging technologies that may involve computers or be used by computing or engineering professionals. Prerequisite ENGR 100, ENGR 115, or CS 110. Offered fall semester alternate years (fall 2014). Three credits.
CS-305	WEB TECHNOLOGIES	This course focuses on more complex web technologies than are covered in CS 205. The majority of the course involves building an ecommerce site and using webpages as front-ends to serverbased databases. Offered fall semester alternate years (fall 2013). Prerequisite: CS 205 or CS 111. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-310	PROGRAMMING LANGUAGES	This course examines the features, implementation, and design of programming languages. Various high-level programming languages representing different programming paradigms will be covered. Java will be used as the primary example of an object-oriented programming language. Programming language translation and runtime features such as storage allocation will be among the topics that are considered. Prerequisite: CS 221, CS170 and CS330. Offered spring semester. Three credits.
CS-321	DATA COMMUNICATION AND COMPUTER NETWORKS	This course covers the major areas of data communications and networking. It uses the OSI layered approach and focuses especially on the TCP/IP protocols and the Internet. LAN technologies and the configuration of routers and switches are also included. Offered fall semester alternate years (fall 2015). Three credits.
CS-322	ADVANCED NETWORKING	This course will address computer networking beyond the OSI model framework. Current industry techniques and technologies are explored in areas of voice, mobile, wireless, and remote technologies. Issues in system security, performance, and maintenance will also be examined. Current research and evolving trends will be discussed to highlight the ever-changing nature of the field and to identify the skills necessary in evaluating new technologies. Students will be expected to build functioning networks during hands on activities beginning with basic wiring through router and VPN configurations. Offered spring semesters alternate years (spring 2014). Prerequisite: CS 321. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-325	ADVANCED TOPICS IN CYBERSECURITY	This course explores advanced topics in cybersecurity such as computer forensics, malware analysis, secure coding, and penetration testing of web applications and networks. Building upon the theoretical foundations of CS225, students will participate in multiple lab and practical exercises to gain experience with current field techniques. The course requires a basic knowledge of cybersecurity issues, networking, and programming background. Offered spring semester alternate years (spring 2015). Prerequisite: CS 225 or CS 321. Three credits.
CS-330	COMPUTER ARCHITECTURE & OPERATING SYSTEMS	Computer architecture and operating systems are covered using the multilevel machine approach, with particular attention paid to the microprogramming level, the conventional machine level, and the operating system level. Linux and/or Windows server operating systems are used as case studies. Prerequisite: CS 111. Offered spring semester. Three credits.
CS-350	DATABASE CONCEPTS & INFORMATION STRUCTURES	This is a first course in modeling complex organizations of data. It includes a review of logical file structures and access methods. Information structures and databases are studied, with detailed work in personal and enterprise database systems. Prerequisite: CS 102. Offered fall semester. Three credits.
CS-351	INFORMATION SYSTEMS ANALYSIS & DESIGN	An investigation of the discipline of systems analysis in relation to the information system life cycle. Structured and object-oriented techniques of analysis and design applicable to current system documentation and the development of general systems solutions are presented. Topics include process and data flows, I/O designs, and systems modeling. Problem solving and communication skills employed in the transition from analysis to design are stressed. Prerequisite: CS 109 or CS 110. Offered spring semester alternate years (spring 2015). Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-355	SOFTWARE ENGINEERING	This course will cover methodologies for program construction which will allow software of high quality to be constructed, where high quality software is defined as software which is reliable and reasonably easy to understand, modify, and maintain. The course covers the software development life cycle, from requirements (elicitation, modeling, analysis and specification), to design specifications, to implementation, testing and delivery. Also included are project management, project documentation and the development of communications skills through written documentation. Prerequisite: CS 111. Offered spring semester alternate years (spring 2014). Three credits.
CS-357	COMPUTING SCIENCE PROJECT I	Using principles and techniques developed in CS 351 Systems Analysis and Design or CS 355 Software Engineering, a capstone senior project is researched, designed, documented, implemented and tested over two semesters. Projects are typically completed individually, but a team approach may be used at the discretion of the instructor. Projects may be done for actual clients. Each project should be done in an area related to one's concentration. Prerequisite: CS 351 or CS 355. Offered fall semester. Two credits.
CS-358	COMPUTING SCIENCE PROJ. II	Using principles and techniques developed in CS 351 Systems Analysis and Design or CS 355 Software Engineering, a capstone senior project is researched, designed, documented, implemented and tested over two semesters. Projects are typically completed individually, but a team approach may be used at the discretion of the instructor. Projects may be done for actual clients. Each project should be done in an area related to one's concentration. Prerequisite: CS 351 or CS 355. Offered spring semester. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
CS-375	APPLIED CRYPTOGRAPHY	This course uses number theory and abstract algebra to describe common cryptographic systems. Students will use computer software to solve cryptography problems and will write computer software of their own to handle some types of cryptography, cryptanalysis, etc. Common applications of cryptography will be discussed. Offered on an irregular basis. Prerequisite: MA 201 and either CS 110 or CS 270. Three credits.
CS-450	INDEPENDENT STUDY--COMPUTING & INFORMATION SCIENCE	An independent study may be possible by arrangement with an individual faculty member. Course may be repeated with a different topic. Variable credit.
CS-550	COMPUTING & INFO SCIENCE INTERNSHIP	An internship involves practical work experience, typically with a local business. Course may be repeated. Variable credit. May be done for no credit.
EC-00X	ECONOMICS EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
EC-101	PRINCIPLES OF MICROECONOMICS	The course introduces the student to economic reasoning, terminology and fundamental concepts. Emphasis is placed on individual economic units such as the household and the firm and how they affect and are affected by the various market structures existing in American capitalism. Offered every semester. Three credits.
EC-101F	PRINCIPLES OF MICROECONOMICS	FIRST YEAR SEMINAR. The course introduces the student to economic reasoning, terminology and fundamental concepts. Emphasis is placed on individual economic units such as the household and the firm and how they affect and are affected by the various market structures existing in American capitalism. Four credits.
EC-102	PRINCIPLES OF MACROECONOMICS	An analysis of the functioning of the entire economy, in particular the forces that influence the level of production, unemployment, and prices. Also included are the nature and role of governmental intervention in changing these variables. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EC-102F	PRINCIPLES OF MACROECONOMICS	FIRST YEAR SEMINAR. An analysis of the functioning of the entire economy, in particular the forces that influence the level of production, unemployment, and prices. Also included are the nature and role of governmental intervention in changing these variables. Offered every semester. Four credits.
EC-160	TOPICS IN POLITICAL ECONOMY	This seminar style course offers a philosophical and historical analysis of topics in political economy. Topics vary from semester to semester, but might include primary source readings from David Hume, Adam Smith, Ludwig Von Mises, Friedrich Hayek, Henry Hazlitt, or Milton Friedman. Offered every semester. May be repeated. One credit.
EC-201	MICROECONOMIC THEORY	The course provides rigorous analysis of consumer and producer behavior, market structure in both the product and resource markets, and general equilibrium theory. The course emphasizes the theoretical foundations and techniques of Neoclassical microeconomics. Prerequisite: EC 101. Offered fall semester. Three credits.
EC-202	MACROECONOMIC THEORY	An examination and analysis of aggregate economic relationships in the context of competing Keynesian and Classical paradigms. The course emphasizes differences in the choice of appropriate stabilization policy on the part of government, as well as the theoretical structures of macroeconomic models. A brief introduction to economic growth theory is included. Prerequisite: EC 102. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EC-225	MONEY AND BANKING	A study of the nature and value of money, with emphasis upon its relationship to economic activity. Special attention is given to monetary theory, especially stationary, steady state, and RE modeling. The course uses Frederic Mishkin's <i>The Economics of Money, Banking, and Financial Markets</i> and selected chapters from Bennett McCallum's <i>Monetary Economics: Theory and Policy</i> . The course also examines the socio-macroeconomic and financial consequences of monetary policies pursued by central banks. Time is devoted to financial institutions, the history of central banking, the risk and term structure of interest rates, monetary tools, aggregate demand and supply analysis, and global markets. Prerequisites: EC 101, EC 102, and BA 351 or EC 360. Cross-listed as BA 225. Offered spring semester of odd-numbered years. Three credits.
EC-351	INTERNATIONAL TRADE & DEVELOPMENT	The course emphasizes the theory behind the international exchange of goods and services among nations of the world. Topics include the Heckscher-Ohlin Theorem, offer curves, the influence of market impediments, the pros and cons of free trade, etc. Prerequisite: EC 201 and MA 109 or MA 111. Offered fall semester of odd-numbered years. Three credits.
EC-353	INTERNATIONAL FINANCE	The course covers the following topics: recent developments in international financial markets, the utilization of foreign exchange and derivative security markets, exchange rate determination, international asset portfolio theory, and financial risk management strategies. Cross-listed as BA 353. Prerequisites: EC 102 and EC-360. Offered spring semester. Three credits.
EC-360	ECONOMETRICS	This course is designed as a continuation of BA 350. It is an introduction to regression and correlation analysis, multiple regression, their uses and related problems such as multicollinearity, serial correlation and heteroskedasticity. The course is balanced between theoretical development and applications. Prerequisite: MA 109 or MA 111 and BA 350 or MA 208. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EC-380	GAME THEORY	The primary goal of this course is to study the scope and methods of game theory, focusing on applications arising within the discipline of economics. Game theory attempts to describe the strategic interaction of agents (e.g., consumers, firms, or the government) in situations where there are competing interests and/or the outcomes depend on the actions chosen by the various agents. The course is designed to expose students to the concepts studied by game theorists as well as the set of analytical skills used in game theory. Prerequisites: EC 201, MA 110 or MA 112. Offered fall semester of even-numbered years. Three credits.
EC-390	EXPERIMENTAL ECONOMICS	This course focuses on laboratory experimentation as a research tool in applied economics, particularly in the areas of industrial organization, political economy, and game theory. The course offers both an overview of general principles used in designing, conducting, and evaluating behavior in economic experiments and a review of current research in the field of experimental economics. The areas of study include market behavior in alternative institutional settings, allocation decisions in settings with externalities, and individual choice with uncertainty. Prerequisites: EC 201 and MA 109 or MA 111. Offered fall semester of odd-numbered years. Three credits
EC-401	ADVANCED MICROECONOMIC THEORY	This course offers the student an in-depth, mathematical analysis and extension of subject matter covered in EC 201 (Microeconomic Theory). Topics covered include: multivariate economic applications of optimization theory with and without constraints utilizing linear algebra; FOC and SOC; Kuhn-Tucker Conditions; and consumer behavior under conditions of uncertainty. Prerequisites: EC 201 and MA 110 or MA 112. Offered spring semester of even-numbered years. Three credits.
EC-402	ADVANCED MACROECONOMIC THEORY	This course examines growth theory models, open economy macroeconomic models, macroeconomic models with rational expectations, dynamic modeling, and stochastic macroeconomic models. Prerequisites: EC 202, MA 110 or MA 112. Offered spring semester of odd-numbered years. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EC-480	SENIOR THESIS	The purpose of this seminar is to produce a scholarly piece of research and writing. Prerequisites: EC 201, EC 202, EC 390, and MA 109 or MA 111. Offered spring semester of even-numbered years. Three credits.
EC-500 EC-550	INDEPENDENT STUDY - ECONOMICS ECONOMICS INTERNSHIP	May be repeated. Variable credit. Pass/Fail option only. Students are subject to the McKenna School's Student Guide to Internship Procedures and Requirements. See Business Administration section of this Bulletin for a detailed description. Variable credit up to three credits.
ED-00X	EDUCATION EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
ED-100	FOUNDATIONS OF EDUCATION	This course is designed to introduce students to the legal principles that establish teaching as a profession and that govern the behavior of teachers. The school as a governmental agency and a state and local institution is examined within a multi-disciplinary context (history, law, philosophy, politics, psychology, and sociology). The Code A Professional Practice and Conduct for Educators is studied. Special emphasis is given to the significance of The Individuals with Disabilities Education Act (IDEA) within the context of compensatory education. Students will also examine racial and cultural diversity, rural and urban educational issues, and the roles of the school and the educator as agents of cultural and educational change. Educational research tools and appropriate instructional technology applications are included. Major emphasis is placed on the development of an educational philosophy. Tubercular check, Act 151 and Act 34 clearances must be obtained before the beginning of class. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
ED-101	FIELD EXPERIENCE I: PREK-4 OBSERVATION AND INTERACTION LABORATORY	This field-based course combines thematic lectures and case study analyses with systematic observation in a variety of PreK-4 schools and classroom settings. The goal of this course is to provide an overview of the various dimensions of modern teaching. In addition to field site experiences, students will be introduced to online teaching practices and techniques using web conferencing and other tools. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. This course meets three hours per week. Approximately 20 hours of fieldwork are involved. One credit.
ED-102	FIELD EXPERIENCE: 4-8/K-12 OBSERVATION & INTERACTION LAB	This field-based course combines thematic lectures and case study analyses with systematic observation in a variety of middle schools and classroom settings. The goal of this course is to provide an overview of the various dimensions of modern teaching. In addition to field site experiences, students will be introduced to online teaching practices and techniques using web conferencing and other tools. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. This course meets three hours per week. Approximately 20 hours of fieldwork are involved. One credit.
ED-103	FIELD EXPERIENCE: 7-12/K-12 OBSERVATION & INTERACTION LAB	This field-based course combines thematic lectures and case study analyses with systematic observation in a variety of secondary schools and classroom settings. The goal of this course is to provide an overview of the various dimensions of modern teaching. In addition to field site experiences, students will be introduced to online teaching practices and techniques using web conferencing and other tools. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. This course meets three hours per week. Approximately 20 hours of fieldwork are involved. One credit.

COURSE	TITLE	COURSE DESCRIPTION
ED-109	PHYSICAL/CULTURAL GEOGRAPHY	<p>Major areas of study include maps and globes, the earth in space, eco-regions, climate patterns, human habitation, land and water formations, origins of ecological degradation, natural and cultural relationships, and regional studies. The five geographic themes are investigated within the framework of the National Geographic Standards. The course emphasizes cross-cultural and global perspectives of historical events and movements, and the socio-economic activities of people in their regional environs. A major requirement is the development of a regional profile using geographic relationships. Appropriate research and instructional technology applications are included in the course. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Three credits.</p>
ED-122	CURRICULUM, PROJECT & PLAY FOR THE DEVELOPING CHILD	<p>This Fred Rogers-inspired course explores the importance of understanding the nature of preschool children (3- through 5- years-old), how they learn and techniques for program planning. Understanding the preschooler's nature will lead to the design of preschool rooms and coordinating curriculums with standards. State and national accreditations and rating scales for preschoolers and preschool spaces will be examined and adapted into program plans. Exploring opportunities to involve parents and community to enhance program quality will be explored. Fred Rogers inspired methods will be explored to incorporate meaningful play and authentic experiences into the classroom. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-205	STRATEGIES AND TECHNIQUES OF INSTRUCTION	<p>This course focuses on basic teaching strategies for prospective educators including instructional planning, classroom management, models of instruction, instructional technologies, effective presentation skills and appropriate assessment practices. The selection and organization of content includes such factors as the availability and appropriateness of resources; curriculum standards, including use of the PDE Standards Aligned System; research trends; preferred teaching styles; desired learning outcomes, thinking and study skills, and students' learning and cultural needs. Extensive use is made of taxonomies of learning for defining objectives and analyzing questioning, instructional design, information presentation and assessment strategies. Instructional needs of ESL students and special needs students are addressed within the regular classroom setting. This course includes both lecture and hands-on activities. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Two credits.</p>
ED-206	FIELD EXPERIENCE II: STRATEGIES AND TECHNIQUES OF INSTRUCTION	<p>This course is designed to be taken concurrently or after ED 205 Strategies and Techniques of Instruction. Students will participate in an authentic on-campus teaching experience with school age students and practice techniques and strategies that are taught in ED 205. Students will be instructed, observed, and mentored by a master teacher and administrator. The course is scheduled on Friday afternoons. Tubercular FBI, check, Act 151 and Act 34 clearances, must be obtained before beginning the class. One credit.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-207	PRACTICUM IN EDUCATION	<p>The requirements and content of this field-based course vary by arrangement with the instructor. It is designed to offer students opportunities for systematic observation and/or instructional interaction with children in a variety of learning environments. It can be taken in lieu of ED 101, 102, or 103 or as an elective for those who wish to earn credit for working in educational settings. In addition to field site experiences, students will be introduced to online teaching practices and techniques using web conferencing and other tools. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. One credit.</p>
ED-208	CLASSROOM PARTNERSHIPS AND INCLUSION	<p>This course is designed to provide the full scope of current trends, adaptive technologies, instructional techniques and innovative strategies needed to effectively teach K-12 special learners and gain an understanding of the need for effective communication. Through the review of learning theory, students will be given methods of teaching in traditional and nontraditional classrooms along with tools for adapting instruction for all learners. Students will also be given the opportunity to practice the dynamics of effective communication that will assist in the development of meaningful partnerships with families and the educational communities. Dynamic inclusionary techniques will be practiced. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-220	ACAD. INTERVENTION & DIFFERENTIATION IN THE CONTENT AREAS	Teacher candidates will learn methods and strategies for providing academic intervention and differentiation to meet the needs of each learner in the content areas. The course focuses on methods and strategies for building and expanding the literacy and learning skills of K-12 students across disciplinary areas to increase academic achievement. Secondary level methods of working with students through RTII, IEPs, inclusion, and transitions are addressed in this course. The 21st century literacies (verbal, visual/technological, spatial, historical, cultural, informational, media/political, scientific, and mathematical) will be addressed as they pertain to the certification areas offered at Saint Vincent College. Teacher candidates will be introduced to research-based methods and strategies for meeting the needs of all classroom learners. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206 and PY 115 or consent of the instructor. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
ED-230	SOCIAL STUDENTS FOR EARLY & SPECIAL LEARNERS	<p>This course investigates the growth and development of young children within the realm of the expanding environmental social studies curriculum. The six disciplines of social studies instruction at the primary grade levels provides the framework for the course structure. The focus of learning will be on the pre-service student's ability to design appropriate and engaging lessons for early learners in a preschool and elementary school setting. This will include the incorporation of the Pennsylvania Standards for Social Studies Instruction and the National Council of Social Studies (NCSS) Standards. An emphasis will be placed on appropriate differentiation to address the variety of learning needs that a typical classroom presents. Adaptations to lesson design in the general education environment using co-teaching and inclusionary practices will be a strategic component of the course. Practice demonstrations, simulations and assessment strategies will be utilized. A required on-site experience will provide authentic classroom interaction with students in the school setting. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Two credits.</p>
ED-235	TEACHING OF SCIENCE & MATH FOR MIDDLE & SPECIAL LEARNERS	<p>This course utilizes a blended learning model in exploring current scientifically-based methodologies for effective teaching in middle grade math and science classroom environments. The course investigates successful strategies and academic standards/anchors necessary for successful teaching in the thematic middle grades. Course content will include working with special needs and culturally diverse middle graders. The course will require students to equally prepare math and science lessons, microteaching, and field experiences within an integrated middle grade experience. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-237	TEACHING OF HUMANITIES FOR MIDDLE AND SPECIAL LEARNERS	<p>This course utilizes a blended learning model in exploring current literature and composition-based methodologies for effective teaching in middle grade English and social studies classroom environments. The course investigates successful strategies and academic standards/anchors necessary for successful teaching in the thematic middle grades. Course content will also include working with special needs and culturally diverse middle graders. The course requires students to equally prepare English and social studies lessons, microteaching, and field experiences within an integrated middle grade experience. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Two credits.</p>
ED-242	NUMERICAL & MANIPULATIVE MATH FOR EARLY AND SPECIAL LEARNERS	<p>This course will provide pre-service teachers with current trends, techniques, technologies, and research about mathematical teaching in the special, early elementary, and inclusive settings. Classroom strategies, hands-on numerical techniques and communication, and the use of manipulative tools will be discussed and presented. Through a combination of readings, student research, in-class activities, microteaching and practical experience along with presented curricula enriched by the Fred Rogers archive, students will gain the skills necessary to create classroom enthusiasm toward mathematics. During much of the in-class time, students will participate in or present elementary mathematics lessons which parallel the types of lessons and strategies currently being promoted by the National Council of Teachers of Mathematics (NCTM) and other organizations that are interested in quality mathematics instruction at the early elementary level. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-244	SCIENCE & THE ENVIRONMENT FOR EARLY AND SPECIAL LEARNERS	<p>This class emphasizes the study of young children's thinking in relation to the content and conceptual basis of science and the environment in which they live. Differentiated instruction, inquiry, adapted discovery for special learners, and cooperative learning models form the pedagogical base for the study of physical, life, environmental, and natural sciences. This course consists of both lecture and laboratory components including an inquiry- based demonstration and participation lab that provides the opportunity to integrate early learning theory with the content and conceptual knowledge base in science and the environment. This course includes lecture and laboratory components, meets three hours per week and includes a school based field experience. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Two credits.</p>
ED-250	READING & WRITING FOR EARLY & SPECIAL LEARNERS	<p>This course addresses the development of emergent literacy skills in young and special needs children ranging in age from preschoolers through third grade who are "learning to read." Emphasis is placed on studying theories of learning, models of instruction, and their application in the design of appropriate language arts lessons for early and special learners. Special attention is given to the topics of phonics instruction, whole language, vocabulary development, and beginning writing skills. Students will learn how to use the Fred Rogers archive and children's literature to enrich reading and writing curriculum as a learning medium with learners. Students are engaged in the planning and presentation of thematic units of instruction and language arts lessons that correlate with State and National Standards. Observations of language arts lessons in local schools and/or a tutoring experience are required. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-300	TEACHING OF FOREIGN LANGUAGE, K-12	<p>This course is designed to prepare students for a career in foreign language education. Students gain knowledge of current and past theories of language acquisition, learning, and teaching. Students develop a philosophy and style of teaching and are required to design and present lessons for students of various ages, abilities, aptitudes, and physical conditions from diverse socioeconomic and cultural settings, backgrounds, and environments. Students familiarize themselves with the National Standards for Foreign Language Teaching, the Pennsylvania State Standards K-12, and the ACTFL Proficiency Guidelines. Students incorporate these standards in their lesson designs and instruments for assessment of student performance. Students integrate effective technological tools in the design of classroom lessons. Opportunities for reflection and self-evaluation concerning one's development as an effective teacher are provided. Membership in professional associations is encouraged. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>
ED-301	TEACHING OF ENGLISH, 7-12	<p>Topics and experiences include the identification of content area readings and study skills, development and presentation of instructional materials, analysis of teaching strategies and techniques, authentic learning, authentic assessment, and instructional planning aligned with the Pennsylvania Standards in Reading, Writing, Listening and Speaking. Students will learn about current trends in curriculum content and research with special emphasis on how culture and human development affect instructional needs of students. One field-based experience is required. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-302	TEACHING OF SOCIAL STUDIES, 7-12	<p>The major emphasis of this standards driven course is the systematic investigation of teaching strategies and techniques, including lesson planning and student micro-teaching demonstrations, authentic learning and assessment, global education, instructional needs of special students, religion in the curriculum, and multicultural education. Current trends and issues in social studies education are also explored through required readings in periodical literature and educational research. Special attention is given to the teaching of current events, individualization and differentiation of instructional strategies and techniques, and the utilization of inquiry techniques. Membership in professional associations is encouraged. Appropriate research and instructional technology applications are included. One field-based experience is required. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Three credits.</p>
ED-303	TEACHING OF MATHEMATICS, 7-12	<p>Course topics and experiences include: the identification of content area skills, development of scope and sequence charts, applications of technology to the teaching of mathematics, text analysis, investigation of mathematics curricula with respect to Pennsylvania Academic Standards and the N.C.T.M. National Standards, review of learning theory and its application to teaching methods, identification of specific learning groups and their special needs, and the development and use of teaching materials including written lesson plans and units of instruction. Videotaped micro-teaching and follow-up analyses are required. Membership in professional organizations is encouraged. One field-based experience is required. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-304	TEACHING OF SCIENCE, 7-12	<p>Lectures and discussions focus on the philosophy of science; the human learning basis of science instruction; interaction analysis in the classroom; current trends in science curriculum and instruction aligned with the Pennsylvania Academic Standards; inquiry, direct instruction, cooperative learning, and discussion models of teaching; designing course, unit, and lesson plans; and authentic assessment of learning, micro-teaching, appropriate technology applications, and library research projects are required. Membership in professional associations is encouraged. One field experience is required. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Prerequisites: ED 100, ED 205/206, and PY 115 or consent of the instructor. Three credits.</p>
ED-305	TEACHING OF ART, K-12	<p>This course is designed to introduce the art education student to the teaching of art at the elementary and secondary levels. In addition to weekly class meetings, opportunities for classroom observation and directed teaching strategies will be provided. An emphasis is placed on developing a proficiency in art curriculum planning, motivational strategies, art room management, and methods of evaluation in art. Students will participate in mock-teaching and local art museum experiences. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-306	TEACHING OF BUSINESS, COMPUTER AND INFORMATION TECHNOLOGY	<p>This comprehensive course is designed to present the theory and methodology necessary to develop, teach, and evaluate instructional lessons and units relating to business subjects including accounting, business law, career development, communication, computation, economics and personal finance, entrepreneurship, information technology, international business, management, and marketing. Students will also learn about establishing and administering advisory committees, business clubs, and work experiences. School visitations and review of current literature are included. Applications are appropriate to the elementary, middle and high school. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>
ED-307	PRACTICUM II	<p>The requirements and content of this field-based course vary by arrangement with the instructor. It is designed to offer students opportunities for systematic observation and/or instructional interaction with children in a variety of learning environments. This course may be taken as an elective for those who wish to earn credit for working in educational settings. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before the beginning the class. One credit.</p>
ED-308	PERFORMANCE & VISUAL ARTS FOR EARLY & SPECIAL LEARNERS	<p>This course addresses the principles, methodology, and decision-making skills essential for teachers to enrich elementary curriculum through the fine arts. It focuses on an integrated inter-disciplinary approach that increases teacher and student awareness of the creative processes and their role in promoting child development. This course includes both lecture and laboratory components, meets three hours per week, and includes a school-based field experience. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Prerequisites: ED 100, ED 205, and PY 115 or consent of the instructor. Two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-311	FIELD EXPERIENCE III: MIDDLE GRADE INSTRUCTION AND THEORY	<p>This field-based course is held on and off campus utilizing local school districts, Saint Vincent College Challenge program, and other youth programs for pre-student teaching experiences in the early adolescent setting. Supervised teaching and observations will be conducted to assist students in adapting curriculum and designing lessons for delivering instruction to middle (grades 4-8) learners. Students will have the opportunity to implement their lesson plans and self-evaluate their own practice teaching. Opportunities to observe veteran teachers and the middle school approach to teaching will be offered. Exploration of a variety of techniques to present the same topic to different levels and how to incorporate interdisciplinary teaming will be addresses. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Two credits.</p>
ED-317	PROGRAM DEVELOPMENT FOR INFANTS AND TODDLERS	<p>This Fred Rogers-inspired course explores the importance of understanding the nature of young children (birth through 2 years) how they learn and techniques for program planning. Through site visits and role play participants explore the basics of infant care and how to address their physical, emotional and cognitive needs. Appropriate curriculum and room design will be explored and adapted to a variety of infant stages. State and National accreditations and rating scales for infants and infant spaces will be examined and adapted into program plans. The Rogers Center will be used to enhance programming and the selection and use of appropriate materials. Different types of available programs will be discussed. Prerequisite: ED 122. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-318	FIELD EXPERIENCE III: EARLY CHILDHOOD INSTRUCTION AND THEORY	<p>This field-based course is held on and off campus utilizing local PreK learning centers for pre-student teaching experiences in the preschool setting. Supervised teaching and observations will be conducted to assist students in adapting curriculum and designing lessons for delivering instruction to early learners. Students will have the opportunity to implement their lesson plans and self-evaluate their practice teaching. Opportunities to observe veteran teachers and the Fred Rogers approach to teaching will be offered. Exploration of a variety of techniques to present the same topic to different levels and how to incorporate topics into discovery areas will be a focus. Students will be asked to incorporate room and program design from ED 122 into their teaching experiences. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>
ED-320	COMPOSITION & LANGUAGE ARTS FOR UPPER ELEMENTARY	<p>This course addresses the continuing development and refinement of literacy skills in the intermediate grades. The focus is on presenting the components required in a balanced program for language arts instruction. Reading, writing, speaking, and listening strategies across the curriculum are emphasized along with problem solving and higher level thinking skills. Various approaches for reading and writing instruction are examined including the use of basal readers and reading and writing workshops. Guidelines and techniques for teaching grammar, spelling, and handwriting are learned and presented in lesson plans that comply with State and National Standards. Students continue their study of children's literature by reviewing several chapter books, participating in a literature response group, and by developing a literature focus unit. Appropriate instructional technologies are included. Observations of language arts lessons and/or a tutoring experience are required. This course includes both lecture and laboratory components and meets three hours per week. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-322	FIELD EXPERIENCE III: K-12	<p>This field-based course is held on and off campus utilizing local school districts, Saint Vincent College Challenge program, and other youth programs for pre-student teaching experiences in the K-12 or secondary setting. Supervised teaching and observations will be conducted to assist students in adapting curriculum and designing lessons for delivering instruction to K-12 and secondary (grades 7-12) learners. Students will have the opportunity to implement their lesson plans and self-evaluate their own practice teaching. Opportunities to observe veteran teachers and the secondary school approach to teaching will be offered. Exploration of a variety of techniques to present the same topic to different levels and instruction regarding young adult transition to post-secondary education, armed forces, or workforce will be emphasized. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. One credit.</p>
ED-325	PHYSICAL HEALTH AND WELLNESS FOR EARLY EDUCATORS	<p>This course involves the study of personal health and wellness as it relates to the early childhood educator when performing as a leader and mentor for young children. It includes instruction on the development of physical education activities appropriate for early learners. The prospective classroom teacher will be provided with a knowledge base in health, fitness, and wellness. Students will be exposed to a rounded approach to life-long wellness as an individual and teacher. Assignments will include lesson planning, exams, physical inventories, microteaching, student discussion, etc. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-330	EARLY CHILDHOOD LEADERSHIP AND COMMUNITY ADVOCACY	<p>This Leadership course focuses on the administrative aspects of Early Childhood, beginning with an historical overview of preschool. It focuses on the role of a director or administrator in both a business and managerial aspect. State and national accreditations for the preschool (DPW, STARS, NAEYC) as well as the director (Director Credential) and Staff (CDA, PDR) are explained and explored. Determining how to write a business plan, quality improvement plan, and the development of handbooks (Parents, Staff and Policy and Procedure) are included in the class work. Practice in developing strategies on how to be a leader not a manager, developing your team, utilizing your team's strengths, and furthering your staff's development. The importance of political advocacy and how to get involved are discussed. Advertising opportunities and designing brochures for enrollment enhancement are a focus. Community engagement groups, parent groups, grants and awards to enhance programming are explored. A final focus on the transitioning of children from preschool to kindergarten and working with a transition team or developing one with your surrounding school districts, preschool providers, and CEG'S. Prerequisite: ED 317. Three credits.</p>
ED-345	URBAN EDUCATION PRACTICUM	<p>The Urban Education Practicum is a summer field-based experience in an urban setting. The course participants work with at-risk elementary-age students in varied settings, including inner city schools, community service centers, and a summer day camp. Participants will (1) work in a classroom setting to help children maintain and develop skills in basic content areas or (2) supervise outdoor activities designed to reinforce basic learning skills and to build teamwork, character, and self esteem. Requirements include submission of a reflective journal, and participation in 30 hours of training and orientation activities for effectively working with at-risk children in an urban environment. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-350	INDEPENDENT STUDY--EDUCATION	Open to junior and senior students with the approval of the department chairperson. Independent studies are administered only by special need and on a case-by-case basis. Variable credit.
ED-355	INST. INTER/HIGH INCID. DISABILITIES	This course addresses various strategies and techniques for successful teaching of students with high incidence disabilities. Within this course, there is a concentration on remediation and adaptation in the general curriculum areas of reading, written and spoken language, and mathematics. Students are exposed to secondary curricular areas of life skill strategies, self-determination strategies, and self-advocacy strategies. Emphasis will be placed on supporting students with high incidence disabilities in the general curriculum and collaborating with general education teachers. Course requirements include practice teaching and field experiences, lesson planning, consultation and research of available journals and resources for teaching. Three credits.
ED-360	STRAT/ASSESS. SIG/MULTI DISAB	This course concentrates on diagnostic and evaluation techniques used with students who have significant, developmental, and multiple disabilities. The use of formal and informal assessment tools in areas specific to functional and life skills is emphasized. Students acquire knowledge of various assessment procedures used to identify students for special education and for individual education program designs implemented within the traditional or non-traditional classroom. This course requires students to perform simulated hands-on and practical implementation of assessment tools to monitor students' progress. In addition, the course focuses on methods teachers use to organize curriculum and implement assessment and instruction to ensure maximum learning for students with moderate and/or severe disabilities. Students are exposed to the curriculum needs such as life, vocational, social skills, and functional academics. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
ED-362	BEHAV. & AUTISM SPEC. DISORD.	<p>This course informs students about techniques for the instruction of students with emotional disabilities and autism, the principles of applied behavior analysis, and the use of behavior assessments in the classroom. In addition, students are exposed to the multiple characteristics of students with autism and other emotional and behavioral disabilities. Students are taught classroom approaches for helping students with emotional disabilities and autism gain access to the general curriculum. This course focuses on the implementation of various positive behavior techniques in order for special educators to ensure maximum learning and class management. Three credits.</p>
ED-390	TEACHING NON-NATIVE SPEAKING AND CULTURALLY DIVERSE STUDENTS	<p>This course is intended to provide both practical and theoretical insights into challenges and difficulties in human communication that result when representatives of different countries interact. The course addresses the history and current realities and principles of the field of second language learning and teaching. It focuses on the needs of the learner, the role of the teacher, cultural differences and international challenges, and the application of methodology in developing communicative competence. Using current techniques and teaching exercises, the course provides students with applied training in approaches of instruction for non-native speaking learners. Tubercular check, FBI, Act 151 and Act 34 clearances, must be obtained before beginning the class. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-400	FIELD EXPERIENCE IV: PRE-STUDENT TEACHING PRACTICUM	<p>student registers for ED 400 the semester prior to student teaching. The course is designed to provide supervised instructional experiences with children and adolescents and an interactive didactic seminar to address the prerequisite skills specific to student teaching. Topics include familiarization with instructional aids and materials, reinforcement of basic teaching pedagogy, knowing and understanding school policies, developing rapport with students and faculty, and providing ample opportunities for systematic observation and supervised teaching in the certification area. ED 400 includes a monthly seminar and a commitment of one full day per week of fieldwork for a semester. Requirements include school site teaching with a minimum of two teaching periods observed by the College supervisor. Appropriate research and technology applications are included. Students must have gained formal admission to the teacher certification program before enrolling in this course. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Prerequisites: PY 115, ED 100, ED 101, ED 205, and at least one teaching methods course. Fee. Two credits.</p>
ED-410	FIELD EXPERIENCE V: STUDENT TEACHING INTERNSHIP	<p>The Student Teaching Internship is a full semester experience. A variety of supplemental assignments are designed to enhance professional competencies. Prerequisites include completion of all other certification requirements, with the exception of Professional Seminar (ED 411). Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. (Student must take ED 411 concurrently with ED 410). Fee. Nine credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
ED-411	PROFESSIONAL SEMINAR	The seminar meets weekly and is required of all students who enroll in ED 410. Lectures, demonstrations, and discussions draw upon the immediate problems and experiences of student teaching. Supplemental assignments are designed to assist the student in applying educational principles of instruction in actual classroom settings. Appropriate research and technology applications are included. Additional emphasis is placed on preparation of credentials package. Prerequisites include completion of all other certification requirements with the exception of student teaching. Tubercular check, FBI, Act 151 and Act 34 clearances must be obtained before beginning the class. Student must take ED 411 concurrently with ED 410. Three credits.
ED-412	SPEC. ED. CONSULT, TRAN, LAW	Within this course, candidates will focus on Special Education laws, Special Education paperwork, and transition for students with disabilities. Candidates will gain practical knowledge of how to complete required teacher generated paperwork that is mandated by the current Special Education law. They will also gain knowledge of what Special Education law says about students with disabilities transitioning into adulthood and how to develop programming to meet the variety of needs for secondary students with disabilities. Three credits.
ED-550	EDUCATION INTERNSHIP	This course is a self-designed internship in education that provides students the opportunity to learn and practice education theory through experiential fieldwork. The internship design, duties, and course evaluation must be monitored by the assigned faculty member. Variable credit.
EL-00X	ENGLISH EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.

COURSE	TITLE	COURSE DESCRIPTION
EL-102	LANGUAGE AND RHETORIC	<p>This first-year writing course develops students' ability to read analytically, think critically, and write formal, documented essays that incorporate readings. Through four formal essay assignments, students learn how to apply the Six Principles of Good Writing as a compositional guide and rubric for evaluation. To improve their management of the writing process, students practice the Three Stages of Good Writing Practice, and to prepare them for future assignments, students learn how to use outside sources responsibly and how to document sources properly. All students must complete this course to satisfy the Core Curriculum. This course does not count toward the English major. Three credits.</p>
EL-102F	LANGUAGE AND RHETORIC	<p>FIRST YEAR SEMINAR. This first-year writing course develops students' ability to read analytically, think critically, and write formal, documented essays that incorporate readings. Through four formal essay assignments, students learn how to apply the Six Principles of Good Writing as a compositional guide and rubric for evaluation. To improve their management of the writing process, students practice the Three Stages of Good Writing Practice, and to prepare them for future assignments, students learn how to use outside sources responsibly and how to document sources properly. All students must complete this course to satisfy the Core Curriculum. This course does not count toward the English major. Four credits.</p>
EL-102H	HONORS LANGUAGE & RHETORIC	<p>HONORS COURSE. This first-year writing course develops students' ability to read analytically, think critically, and write formal, documented essays that incorporate readings. Through four formal essay assignments, students learn how to apply the Six Principles of Good Writing as a compositional guide and rubric for evaluation. To improve their management of the writing process, students practice the Three Stages of Good Writing Practice, and to prepare them for future assignments, students learn how to use outside sources responsibly and how to document sources properly. All students must complete this course to satisfy the Core Curriculum. This course does not count toward the English major. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
EL-107	NEWS WRITING	In this writing course, students will learn about the nature and role of journalism in a democratic society and practice and publish their own news writing. Along with the function and ethics of journalism, students will learn how to determine what is newsworthy, gather information and check sources, structure a news article, compose various kinds of feature articles, write paragraphs and sentences in a journalistic style, and edit their own writing and that of others. Students must subscribe or have digital access to a daily newspaper, which will serve as a subject for discussion and journal writing. A portion of each class period will be devoted to workshop sessions for The Review, the college's student newspaper, for which students will be required to write and edit articles and perform other publishing tasks. Three credits. May be retaken for one credit (EL-107A).
EL-107A	NEWS WRITING	This is the one credit repeatable course that is additional to EL-107. One Credit.
EL-108	TECHNICAL WRITING	In this writing course, students learn how to plan, compose, and revise technical documents. Assignments include problem analyses, instructions, proposals, process descriptions, and formal reports. In the process of completing these assignments, students practice strategies for analyzing audience, writing clear sentences, composing memos and letters, paraphrasing, organizing reports, and using new media. Prerequisite: Completion of EL 102 and at least sophomore standing. Three credits.
EL-110	INTRO TO CREATIVE WRITING	This creative writing course introduces the fundamentals of creative writing craft in three genres: poetry, fiction, and creative nonfiction. Students read and discuss short contemporary texts and respond to in-class writing prompts. In the workshop element of the course, students give and receive peer feedback on their drafts and collaboratively explore strategies for revision. Students produce a final portfolio of revised work in all three genres. This course is a prerequisite for advanced courses in Creative Writing and may not be taken after students have enrolled in advanced courses in Creative Writing. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-111	GREEN WRITING: LITERATURE AND THE ENVIRONMENT	In this literature course, green writing, or, literature about the environment, is defined by its attempt to connect nature (in the widest sense of the word) with human experience (in the widest sense of the words). Along with canonical 19th-century texts, this course canvases short selections of contemporary writing moving topically through issues surrounding concepts such as conservation, biodiversity, and wilderness. Readings may include Thoreau, Hemingway, Silko, Lopez, Carson, Dillard, Williams, among many others. Discussion-oriented class, readings include a multitude of short works and two novels, assignments include notebook, quizzes, term paper, and class participation. Three credits.
EL-113	WOMEN AND LITERATURE	This literature course examines the various roles assumed by women, both as characters and authors, to issues such as the possibility of a particularly female aesthetic and literary tradition. Readings may include Rowson, Jacobs, Austen, Woolf, Mukerjee, Morrison, among other writers, and consider texts across space, time, class, and ethnicity. Discussion-oriented class; requirements include weekly papers or reading reflections, quizzes, group presentation, final, and class discussion. Three credits.
EL-114	BRITISH LITERATURE: MIDDLE AGES TO RESTORATION	This introductory-level literature course surveys British literature from Anglo-Saxon times until the restoration of the monarchy in 1660. Students will read representative selections from several genres from the pre-Medieval, Medieval, and Renaissance periods, including epic and lyric poetry, ballads, dramas, and prose works. Stress will be placed on the accomplishments of Chaucer, Shakespeare, and Milton, as well as other notable writers. Some literary history will provide a context within which to examine the development of English literature during these periods. Students must take two-to-three exams and write two-to-three papers. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-114F	BRITISH LITERATURE: MIDDLE AGES TO RESTORATION	FIRST YEAR SEMINAR. This introductory-level literature course surveys British literature from Anglo- Saxon times until the restoration of the monarchy in 1660. Students will read representative selections from several genres from the pre- Medieval, Medieval, and Renaissance periods, including epic and lyric poetry, ballads, dramas, and prose works. Stress will be placed on the accomplishments of Chaucer, Shakespeare, and Milton, as well as other notable writers. Some literary history will provide a context within which to examine the development of English literature during these periods. Students must take two-to-three exams and write two-to-three papers. Four credits.
EL-114H	HONORS BRIT LIT: MID AGES TO	HONORS COURSE. This introductory-level literature course surveys British literature from Anglo- Saxon times until the restoration of the monarchy in 1660. Students will read representative selections from several genres from the pre-Medieval, Medieval, and Renaissance periods, including epic and lyric poetry, ballads, dramas, and prose works. Stress will be placed on the accomplishments of Chaucer, Shakespeare, and Milton, as well as other notable writers. Some literary history will provide a context within which to examine the development of English literature during these periods. Students must take two-to-three exams and write two-to-three papers. Three credits.
EL-115	BRITISH LITERATURE: NEOCLASSICISM TO MODERNISM	This introductory-level literature course covers major literary works in Britain from the Restoration of the Crown to the 20th century. All major genres within the time span -- drama, the verse-essay, the novel, the short story and lyric poetry -- are explored and examined as reflections of historical and aesthetic contexts. Authors covered include Dryden, Pope, Swift, Johnson, Wordsworth, Coleridge, Keats, Austen, Tennyson, Hopkins, the Brownings, and Hardy. Students acquire skills in reading the various kinds of literature; they respond to questions and prompts on a weekly basis. Students must take two-to-three exams and write two-to-three papers. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-119	HISTORY OF THE ENGLISH LANGUAGE	<p>This course examines the history of English from a technical standpoint and also from a political, social, and even religious perspective. Students begin with an overview of linguistic theory. Then, concentrating on such linguistic phenomena as Grimm's Law and the Great Vowel Shift, they examine how Anglo-Saxon (Old English) became middle English, and how that in turn evolved into modern English. They also analyze how historical, psychological, and social forces have shaped modern English and what forces may shape it in the future. Student progress is measured by periodic quizzes and in-class exercises, two hourly exams, and a comprehensive final exam. Students have the option of substituting an oral presentation or a major paper for the second hourly exam. This course will also satisfy the interdisciplinary requirement for English majors; it is required of all English majors seeking secondary certification to teach English. Three credits.</p>
EL-121	FACES OF BATTLE: WAR AND PEACE IN HISTORY, LITERATURE AND THE ARTS	<p>This literature course studies the changing personae of men and women who have been involved in war and peace-making from primitive warfare to Vietnam. Historical concentration may vary, e.g., Wars on American Soil, World War II, etc. Participants read from the works of Xenophon, Pliny, Caesar, the Bible, Shakespeare, Whitman, Crane, Bierce, Hemingway, Owen, Mailer, Jones, and others. Participants will become familiar with "pro" and "anti-war" materials, and the historical changes in attitudes between the heroic/romantic ideal to the critically realistic. Through regular lectures, discussions, audio/visual materials, Power Point presentations, and the insights of invited veterans who have developed their oral histories with the Saint Vincent College Center for Northern Appalachian Studies/Oral History Program, participants become familiar with the development of the doctrine, tactics, strategy, and technology of war, the changing face of the hero, the roots of archetypal motifs, the treatment of human virtue and vice, the role of women, and other aspects of the literature of war. Participants maintain a journal, take quizzes, and prepare a major, final project. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
EL-121H	FACES OF BATTLE	<p>HONORS COURSE. This course studies the changing personae of men and women who have been involved in war and peace-making from primitive warfare to Vietnam. Historical concentration may vary, e.g., Wars on American Soil, World War II, etc. Participants read from the works of Xenophon, Pliny, Caesar, the Bible, Shakespeare, Whitman, Crane, Bierce, Hemingway, Owen, Mailer, Jones, and others. Participants will become familiar with "pro" and "anti-war" materials, and the historical changes in attitudes between the heroic/romantic ideal to the critically realistic. Through regular lectures, discussions, audio/visual materials, Power Point presentations, and the insights of invited veterans who have developed their oral histories with the Saint Vincent College Center for Northern Appalachian Studies/Oral History Program, participants become familiar with the development of the doctrine, tactics, strategy, and technology of war, the changing face of the hero, the roots of archetypal motifs, the treatment of human virtue and vice, the role of women, and other aspects of the literature of war. Participants maintain a journal, take quizzes, and prepare a major, final project. Three credits.</p>
EL-122	AFRICIAN STUDIES	<p>This literature course investigates elements of African history from earliest times to the partition of the continent by European powers in the 1890s and prepares participants to understand developments in Africa in the twentieth century. Participants study African pre-history, geography, language groups, civilizations of the bow, clearings, granaries, towns, cities and kingdoms, the three major ages of exploration, and the slave trade. Audio/visual materials and Power Point presentations supplement lectures and discussions. Course requirements include a journal, scheduled quizzes, and midterm and final exams. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
EL-122H	HONORS AFRICAN STUDIES	HONORS COURSE. This literature course investigates elements of African history from earliest times to the partition of the continent by European powers in the 1890s and prepares participants to understand developments in Africa in the twentieth century. Participants study African pre-history, geography, language groups, civilizations of the bow, clearings, granaries, towns, cities and kingdoms, the three major ages of exploration, and the slave trade. Audio/visual materials and Power Point presentations supplement lectures and discussions. Course requirements include a journal, scheduled quizzes, and midterm and final exams. Three credits.
EL-124	LITERATURE & THE BIBLE	In this literature course, students examine the Bible as a work of literature, both in and of itself and in the ways it has influenced other writers. Students explore the traditions behind the Bible, as well as the different literary genres it contains: myth, historical chronicle, heroic saga, and lyric poetry, for example. They also look at selected works of literature that draw upon or reinterpret the Bible. Grades will be based on a midterm and a final exam, one major paper and two or three essays, occasional quizzes, and class participation. Three credits.
EL-125	THE HISTORY AND DEVELOPMENT OF SCIENCE FICTION	This literature course examines science fiction as a genre of literature, from its beginnings in the 19th century through the present day. After a look at the mythic roots of science fiction, students read classic works by Jules Verne and H. G. Wells, and proceed to the present with representative works by writers like Arthur C. Clarke, Robert Heinlein, and Ursula K. LeGuin. Along the way they analyze recurring motifs, themes, and concerns; they also examine why this genre holds such fascination for so many people, and how it functions as a kind of twentieth century mythology. Student progress will be evaluated through a midterm and a final exam, a major paper or major project, occasional quizzes and homework assignments, and class participation. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-126	ROCK N ROLL CRITICISM	In this literature course, students examine the history, artistry, and cultural impact of contemporary popular music by reading the work of critics from academia, mainstream music journals, and the underground press. Students read about and discuss such issues as genre, audience, image, aesthetic value, history, race, and gender. Also, students examine and learn how to analyze the prose style of such popular music critics as Cohn, Marcus, Christgau, Bangs, and Tate. Finally, students develop their ability to write criticism by learning how to listen critically, establish aesthetic criteria, and apply them in written pieces. Students must compose a series of worksheets, deliver an oral report, take a midterm and final, and complete a course project, which may be creative. Three credits
EL-127	SHAKESPEARE ON FILM	In this literature course, students read and discuss several key Shakespeare plays and screen a variety of film adaptations from such directors as Kurosawa, Jarman, Zeffirelli, and Olivier. Students will learn how to watch films critically, to understand various approaches to adapting a written text to film, and to express their discoveries effectively through discussion and writing. This course requires a reading and screening journal, as well as a midterm and final exam. Three credits.
EL-128	CHILDREN'S LIT: FABLES - 1900	This literature course explores the cultural construction of childhood and children's literature from classical antiquity to 1900. Student move from medieval children's literature to Puritan children's literature, rationalist children's literature, and romantic children's literature. Readings include literary texts, secondary essays, and two nineteenth century novels. Course requirements include reading logs, unit tests, final exam and participation in group and class discussion. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-129	YOUNG ADULT FICTION	This literature course provides the opportunity for students to review recent trends in young adult literature. Class members read and discuss a selection of at least ten contemporary young adult novels in addition to secondary sources. Course requirements include short essays, reading quizzes, exams, and class participation. This course is required of all students seeking secondary teaching certification in English. Three credits.
EL-130	CHILDREN'S LITERATURE: 1900 TO PRESENT	This literature course invites students to explore the evolution of children's literature from the early 20th to the present. Students will read and discuss a selection of at least 12 different authors of literature for children. Assigned readings include the picture book, realistic fiction, nonfiction, historical fiction, science fiction, fantasy, and secondary sources. The goal of the course is to enable students to make substantive, independent evaluations of the texts at hand and other texts they encounter. Course requirements include short essays, reading quizzes, two exams, and class discussion. Three credits.
EL-131	AMERICAN LITERATURE: EXPLORATION TO CIVIL WAR	This literature course explores the evolution of literary genres, themes, and forms from exploration to the Civil War. From explorers' letters to colonists' sermons, diaries, and poetry to politicians' manifestos of our young republic, and into the slave narratives and rich poetry and fiction of the American Renaissance, this survey course charts the emergence of our national literature. In this discussion-oriented class, readings include a multitude of short works and one novel. Students must take two-to-three exams and write two-to-three papers. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-132	AMERICAN LITERATURE: CIVIL WAR TO PRESENT	This literature course explores the evolution of literary genres, themes, and forms from the post-Civil War era through the present. Moving from realism and naturalism through modernism and postmodernism to contemporary literature, this course explores the poetry, fiction, memoirs, and critical poetics essays that help define and develop the American literary tradition. In this discussion-oriented class, readings include a multitude of short works. Students must take two-to-three exams and write two-to-three papers. Three credits.
EL-137	AMERICAN SHORT STORY	This literature course covers the form and evolution of the short story and short story collection as invented and mastered by American authors from Poe to Updike. Symbolism, Nationalism, Realism, Naturalism, Primitivism, and Modernism provide contexts for ways of understanding writers such as Poe, Hawthorne, Melville, Crane, Cather, Hemingway, Anderson, Steinbeck, Fitzgerald, Faulkner, Bierce, Ellison, and Updike. The typical class includes lecture and discussion. Students take three quizzes, a midterm, and a final, and to participate in group and class discussion. Three credits.
EL-138	MULTIETHNIC LITERATURE OF THE UNITED STATES	This literature course will engage questions of national literature as expressed, developed, and critiqued in a multicultural arena. While it is impossible for the readings in this class to be totally representative of the emerging multicultural canon, nonetheless, students will read texts from a variety of different American ethnicities and their themes. Readings include approximately 10 books; assignments include at least two short papers, reading quizzes, group presentation, midterm and final exam, and class participation. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-139	AFRICAN AMERICAN LITERATURE	This literature course studies the major themes and artistic innovations in African-American literature from the Africans' diaspora in the 17th century to the present. Moving from slave narratives, songs, and early American documents through the aftermath of slavery, into the Harlem or New Negro Renaissance, through the Civil Rights Movement, and arriving at contemporary literature and the election of our first African American president, this course provides an historic and literary overview of African American literary production. Course requirements include short unit response papers, a group presentation, unit quizzes, final exam, and class participation. Three credits.
EL-140	MYTH	This literature course explores the idea of myth and mythic traditions in history, literature, the arts, and popular culture. Participants read selected works of traditional literature, together with Genesis, Revelation, the scriptures of other religions, and appropriate selections from Freud, Jung, Neumann, Eliade, van Gennep, Meade, Rank, Campbell, and others. Audio/visual materials and Power Point presentations supplement lectures and discussions. Participants maintain a journal, take scheduled quizzes and a mid-term and final exam. Three credits.
EL-140H	HONORS MYTH	HONORS COURSE. This course explores the idea of myth and mythic traditions in history, literature, the arts, and popular culture. Participants read selected works of traditional literature, together with Genesis, Revelation, the scriptures of other religions, and appropriate selections from Freud, Jung, Neumann, Eliade, van Gennep, Meade, Rank, Campbell, and others. Audio/visual materials and Power Point presentations supplement lectures and discussions. Participants maintain a journal, take scheduled quizzes and a mid-term and final exam. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-142	LITERARY MAGAZINE PRODUCTION	This creative writing course is an introduction to the form and phenomenon of the contemporary literary magazine. In the first half of the semester, students collaborate as an editorial team to produce <i>Generation</i> , the college's own literary annual. In the second half of the semester, students focus individually on their own writing/artistic and publishing pursuits. With guidance and support of the instructor, students explore the literary magazine market; research, read, and review suitable publications; and, ultimately, prepare first submissions. This class is best suited for students with an interest in creative writing, visual art, and/or print media design. No prerequisites. Three credits.
EL-142A	MAGAZINE PRODUCTION	This is the one credit repeatable course that is additional to EL-142. One credit.
EL-143	THE BEAT GENERATION	This literature course explores the major poetry and prose of Kerouac, Ginsberg, Burroughs, Snyder, and others within a framework of post-WWII history, art, literature, and music. Students write a series of short papers, take a midterm and final exam, deliver oral presentations, and submit a course project, which may consist of creative work. Three credits.
EL-147	ARTHURIAN LITERATURE	Probably no legend has influenced modern culture more than that of King Arthur. The ideals represented by him and his knights continue to inspire after over 1,000 years. This intermediate-level literature course traces the history and development of this compelling myth, from a vague reference in an obscure chronicle, through the medieval French romances and Malory's <i>Morte d'Arthur</i> , to modern interpretations of the legend by such writers as T. H. White and Marion Zimmer Bradley. Students will examine the figure of Arthur and what he has represented to different cultures, and what he has come to mean to us. Student achievement will be measured through a midterm and a final exam, one major paper, occasional quizzes and assignments, and class participation. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-148	MODERN CATHOLIC LITERATURE	This literature course will examine literature by Catholic authors from the mid-nineteenth century to the present day. Students will read and discuss works by such writers as Gerard Manley Hopkins, G. K. Chesterton, Dorothy Day, Flannery O'Connor, and Shusaku Endo, among others, and so explore the ways that the writers' faith affects their imaginations, their views of moral conflict and of character, and their spirituality. The readings and the specific focus of the course may vary from semester to semester. A midterm, a final, a research paper, quizzes and other short assignments, and class participation. Three credits.
EL-149	J.R.R. TOLKIEN	In this literature class we will study the life and works of J. R. R. Tolkien, one of the 20th century's most popular authors. We will begin with a look at Tolkien's life and then examine some of his early work, as well as classic works from Old Norse, Anglo-Saxon, and other sources that influenced him. Our main focus will be on his masterpiece, The Lord of the Rings. Through an examination of this work, as well as Tolkien's philosophy of literature, we will see how it develops his concepts of myth, heroism, honor, and other themes. One final, some short assignments, class participation, and two of the following: a midterm, a term paper or creative work, or an oral report. Three credits.
EL-154	SPECIAL TOPICS IN LITERATURE	This literature course offers students unique opportunity for more focused study of literary periods, figures, genres, creative writing modes, and interdisciplinary topics. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.
EL-155	SPECIAL TOPICS: CREATIVE WRIT	This creative writing course offers students unique opportunity for more focused study of topics in Creative Writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-156	SPECIAL TOPICS: PROF. WRITING	This writing course offers students unique opportunity for more focused study of topics and methodologies in Professional Writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.
EL-157	SPECIAL TOPICS: CHILDREN'S LITERATURE	This literature course offers students unique opportunity for more focused study of topics in Children's Literature. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Three credits.
EL-179	THE LITERATURE OF PROTEST	This course will explore the ways in which literature, art, and film have responded to injustice, censorship, and militarism. Students will study such artists as Aristophanes, Milton, Kempe, Wollstonecraft, Douglass, Thoreau, Picasso, Walcott, Rich, Kubrick, Baldwin, Dylan, and Kramer. Students will maintain a reading blog, deliver an oral report, and complete a term project. Three credits.
EL-202	INTERMEDIATE WRITING	This upper-level composition course focuses on pre-professional training and practice in all rhetorical modes, especially in exposition and argumentation. A process methodology adheres to the Six Principles of Good Writing while emphasizing invention, development, citation, revision, grammar, and logic. The ultimate goal of the course is for each student to produce an essay magazine consisting of three polished essays-- the outcome of three cycles, which contain a variety of focused writing projects. Six quizzes assess mastery of micro-skills. This course has no pass-fail option, does not provide remediation, and has two prerequisites-- completion of EL 102 and at least 32 credits. (This description also applies to EL 208 Pedagogy of Composition.) Three credits.
EL-203	POETRY WORKSHOP	In this advanced creative writing workshop, students deepen their study of poetic craft and contemporary poetry. This course requires extensive reading assignments-usually one book per week-in addition to the writing and workshop discussion of poems for the final portfolio project. Prerequisite: EL 110 or permission of instructor. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-204	FICTION WORKSHOP	In this advanced creative writing workshop, students deepen their study of the craft of short fiction. Students read modern and contemporary short story collections in addition to a book of short fiction craft. This course requires extensive reading assignments-usually one short story collection per week, plus chapters from a craft book-in addition to the writing and workshop discussion of stories for the final portfolio project. Prerequisite: EL 110 or permission of instructor. Three credits.
EL-210	CLASSICAL GREEK POETRY AND DRAMA	The literature and culture of ancient Greece has influenced modern culture greatly. In this upper-level literature course students will study representative works from this time and discuss this influence. Readings will include the epic poetry of Homer, the lyrics of Sappho and Archilochus, and the drama of Aeschylus, Sophocles, Euripides and Aristophanes. Students will also examine the critical theories of Plato and Aristotle and how these classical thinkers have shaped our thought. The grade will be based on a midterm, a final exam, a major paper and a few short essays, quizzes, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-211	MEDIEVAL STUDIES	This literature course investigates three major areas of Medieval life and literature, e.g., the form of Romance, the theme of Courtly Love, and the technique of Allegory. Participants read selected works of Old English Literature, selections from Chaucer's Canterbury Tales, and Dante's Inferno, in addition to selected lyrics, ballads, drama, and other works. Participants especially work toward a synthesis of ideas and an understanding of the progress and development of early literary form and technique in later periods in literature. Course requirements include a journal, scheduled quizzes, a mid-term and final exam. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-212	CHAUCER	<p>The life and representative works of Geoffrey Chaucer are the subjects of this upper-level literature course. Our main concentration will be on his Canterbury Tales, with selections from some of Chaucer's other poetry; we will also examine the Middle English and Continental traditions that influenced it. We will read Chaucer's works in Middle English and spend some time studying its structure and pronunciation; part of the grade, in fact, will be based on students' ability to read and interpret the Middle English of Chaucer. A midterm, a final exam, a major paper, an oral report, some quizzes and short assignments, and class participation comprise the remainder of the grade. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.</p>
EL-213	SHAKESPEARE'S HISTORIES	<p>This literature course comprises a study of Shakespeare's history plays. Students examine the sources and influences for the plays such as Latin history, medieval chronicle, contemporary English drama, and the political, philosophical, and social writings of the age. The major emphasis of the course is on the plays themselves, including both the Roman and the English history plays. Students thus explore theme, character, setting, language, style, and tone, noting what is characteristic of the Renaissance as well as what is distinctive of Shakespeare. Course requirements include one major paper, a midterm, a final examination, quizzes, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
EL-214	SHAKESPEARE'S COMEDIES AND TRAGEDIES	In this literature course, students engage in an intensive study of these plays from both traditional and contemporary perspectives. Students will trace Shakespeare's plays to their sources, examine dramatic conventions, review the plays' formal literary qualities, and situate the plays in their historical and philosophical context, but students will also historicize the plays, deconstruct Shakespeare's language, and consider questions of gender, race, and colonialism. Course requirements include a midterm and final exam, an oral report on a contemporary scholarly article, and a research-based term paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-216	BRITISH RENAISSANCE LITERATURE	This literature course focuses on the major texts of Spenser, Donne, and Milton. Along with their close reading of the primary texts, students will locate these texts within the religious, political, and philosophical crises that distinguish the early modern era. The course familiarizes students with the criticism of these writers and their work by requiring that they write a short essay, deliver an oral presentation on a scholarly article, take a midterm and final exam, and compose a research-based paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-224	THE ROMANTIC AGE	While Romanticism in Europe enjoyed its high period in the first half of the nineteenth century, this literature course examines romanticism as a cultural influence with principles that predate 1798, and which reach beyond 1840. While the canonical Romantic writers -- Blake, Wordsworth, Coleridge, Shelley and Keats -- occupy center stage, thinkers and ideas influencing them and modifying their work are given significant attention, especially neo-classicism, travel literature, the French Revolution, feminism, landscape painters. The course begins with lecture and moves to seminar. Course requirements include a midterm, major project, and a final exam. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-236	MODERN EUROPEAN LITERATURE	This course covers the major literature, art, and film of the Realist, Symbolist, Modernist, Surrealist, and Contemporary periods of European literature. Students will connect literature to key philosophical and cultural movements of the era, and will apply both traditional modes and contemporary literary theory in their analyses of texts. Required work includes a short essay, an oral presentation on a scholarly article, a midterm and final examination, and a research-based term paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-242	AMERICAN RENAISSANCE	This literature course centers on the mid-nineteenth century literary production that constitutes the American Renaissance, an explosion of touchstone texts that defined our nation, reflected its own time, and forecast our own. Readings may include Emerson, Thoreau, Hawthorne, Melville, Stowe, Whitman, and Dickinson. Discussion-oriented class, readings include approximately four novels, two poetry oeuvres, and 10 critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-244	CREATIVE NONFICTION WORKSHOP	In this advanced creative writing workshop, students deepen their study of creative nonfiction. This course requires extensive reading assignments-usually one book per week-in addition to the writing and workshop discussion of essays for the final portfolio project. Prerequisite: EL 110 or permission of instructor. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-252	LITERARY TRANSLATION WORKSHOP	This advanced creative writing workshop introduces students to the theory and practice of literary translation. This course requires extensive reading assignments, which touch on the cultural, aesthetic, and linguistic challenges of literary translation-in addition to the writing and workshop discussion of student translations for the final portfolio project. To succeed in the course, students must have achieved at least intermediate proficiency in a foreign language. Prerequisite: EL 110 or permission of instructor. Three credits.
EL-256	SENTIMENTAL POLITICS: AMERICAN WOMEN WRITERS OF THE NINETEENTH CENTURY	Centering on the gendered conventions of sentimental literature, this literature course explores the social reform movements surrounding 19th-century America, including emancipation and women's suffrage. Readings may include work by Catharine Maria Sedgwick, Fanny Fern, Frances Harper, Harriet Jacobs, Sarah Callahan, among others. Discussion-oriented class, readings include approximately six novels, selected poetry, and 10 critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-258	AMERICAN MODERNISM	This literature course will explore American expressions of Modernism from the turn of the twentieth century to World War II, making room for a wide variety of voices. Readings may include Chopin, Johnson, Hemingway, Fitzgerald, Stein, Faulker and Ellison. Discussion-oriented class, readings include approximately six novels and 10 critical essays, assignments include weekly papers and essay reading rubrics, researched term paper, and class participation. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level course. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-259	CRITICAL APPROACHES TO CHILDREN'S LITERATURE	Critical studies of children's literature draws not only on literary theory but also on an interdisciplinary approach to age-specific fiction. This literature course helps students interrogate children's and young adult literature and the roles it has played in national and familial identity, social reform, aesthetic movements, and other topics. In this discussion-oriented class, readings include approximately five novels and critical essays, assignments include weekly papers, one substantial critical paper, and class participation. Prerequisite: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-261	ADVANCED STUDIES IN LITERATURE	This literature course offers students unique opportunity for more intensive study of literary periods, figures, genres, creative writing modes, and interdisciplinary topics. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-263	ADV. STUDY IN MODERN LIT.	This literature course enables students to more intensively study writers, genres, and interdisciplinary topics from modern British and European and American literature. Topics vary, and students should consult the registration booklet for specific descriptions of courses. Prerequisites: Completion of EL 102 Language and Rhetoric and at least on Introductory-level literature course. Three credits.
EL-264	ADV. STUDIES IN CREATIVE WRIT	This creative writing course offers students the opportunity for more intensive study of a specialized topic in creative writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: EL 110. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-266	ADVANCED STUDIES IN PROFESSIONAL WRITING	This writing course offers students unique opportunity for more intensive study and practice of Professional Writing. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.
EL-272	ADV. STUDIES IN CHILD. LIT.	This literature course offers students unique opportunity for more intensive study of children's literature. Topics vary from semester to semester, and students should consult the registration booklet for specific descriptions of courses offered. Prerequisites: Completion of EL 102 Language and Rhetoric and EL 129 or EL 130. Three credits.
EL-273	REPRESENT. OF CHILDHOOD LIT.	This topical course explores American representations of childhood in landmark fiction. Primary texts may include Twain's <i>The Adventures of Huckleberry Finn</i> , James's <i>The Turn of the Screw</i> , Wharton's <i>The Children</i> , Harper's <i>To Kill a Mockingbird</i> , Salinger's <i>Catcher in the Rye</i> , and Morrison's <i>The Bluest Eye</i> . These writers were foundational in articulating both what adults imagined childhood to be and how children may actually act and think. Discussion-oriented class, readings include both primary texts and critical essays. Assignments include weekly short papers and essay reading rubrics, artifact analysis in coordination with the Fred Rogers Archive and researched term paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits

COURSE	TITLE	COURSE DESCRIPTION
EL-274	REPRESENTATIONS OF CHILDHOOD IN FILM	<p>This topical literature course explores American representations of childhood first produced in significant novels and later translated to film. Primary texts will include both novels and films (to be read/viewed outside of class) and may include Stevenson's <i>Treasure Island</i>, Spyri's <i>Heidi</i>, Burnett's <i>A Little Princess</i>, Travers' <i>Mary Poppins</i>, Baum's <i>Wonderful Wizard of Oz</i>, and Paterson's <i>Bridge to Terabithia</i>. Exploration of filmmakers' interpretations of these novels will illustrate adults' perceptions of qualities children find valuable in the works. This discussion-oriented class includes readings of primary texts and critical essays as well as film viewing. Assignments include papers, exams, occasional quizzes, and researched term paper. Prerequisites: Completion of EL 102 Language and Rhetoric and at least one introductory-level literature course. Three credits.</p>
EL-325	LITERARY CRITICISM I: ANCIENT TO MODERN	<p>The basic framework for this course is historical, as students read and discuss critical statements from the ancient to the modern periods, beginning with Plato and ending with early twentieth-century critics such as T.S. Eliot and Virginia Woolf. Major influences and ideas that reach across authors and across cultural periods-mimesis, pragmatism, organicism and modernism-provide bases for schools of criticism as well as individual critics. Also, students learn literary criticism as a skill?writing analytically about literature and developing a working understanding of the way the discipline is researched and shared. This intermediate level course requires three essays, a midterm, and a final exam. This course is required of all English majors. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
EL-326	LITERARY CRITICISM II: CONTEMPORARY THEORIES	In this course, English majors and minors survey and practice the literary theories of the 20th and 21st centuries. Beginning with New Criticism, students concentrate on such critical theories of the contemporary period as Structuralism, Deconstruction, Marxism, Feminism, Cultural Studies, Post-Colonial Theory, and Postmodernism. Emphasis, however, will be placed on applied criticism, through three short essays in which students examine text from the perspective of specific critical schools. Along with the three essays students must take midterm and final exams. This course is required of all English majors. This course does not fulfill requirements for the Core. Three credits.
EL-350	INDEPENDENT STUDY--ENGLISH	In this course, topics of research are chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Prerequisites: completion of EL102 Language and Rhetoric and at least one literature course. Variable credit.
EL-400	SENIOR PROJECT	This is the capstone course for English majors. In it, senior majors will complete their Senior Projects -- papers of 20-30 pages--under the supervision of the course's instructor and a second reader, whom the student writer will select based on that reader's expertise. Students pursue Senior Projects based on their area of concentration: students in Literary Studies, Children's Literature, and Secondary Education will write works of literary criticism; student concentrating in Creative Writing will write collections of fiction, creative non-fiction, or poetry; and students concentrating in Professional Writing will write formal reports, proposals, or other forms of technical documentation. The fundamental requirement of the course is the completion of the project, but students must also submit outlines and drafts, conference regularly with the instructor and second reader, and deliver a public presentation of an excerpt of their projects. Only English majors with senior standing will be admitted to this course. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
EL-550	ENGLISH INTERNSHIP	In this course, students work in a professional setting in order to extend their learning experience beyond college into the world of work; relevant experiences can take the form of internships, field work, and cooperative programs, particularly in advertising, public relations, journalism, and communications. Students may or may not be paid, depending on the policy of the employer. May be repeated. Variable credit.
ENGR-00X	ENGINEERING EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
ENGR-100	INTRODUCTION TO ENGINEERING	Overview of the engineering discipline, engineering ethics, teamwork, quality, and design. Introduction to the various engineering fields, including mechanical, electrical, industrial, chemical, nuclear, materials, environmental, and civil. Prerequisite: None. Two credits.
ENGR-115	INTRO TO ENG. COMPUTATION	The goal of this course is to introduce engineering students to engineering problem solving using a modern computational environment. In the context of engineering applications, basic procedural programming concepts will be covered including input/output, branching, looping, functions, file input/output, and data structures such as arrays and structures. Problem solving will be demonstrating using standard engineering application software packages. Prerequisite: MA 111. Three credits.
ENGR-220	ENGINEERING & COMPUTING ETHICS	Study of ethical issues in the fields of engineering and computing: Topics include safety and liability, professional responsibility to clients and employers, whistle-blowing, codes of ethics, legal issues that relate to privacy, intellectual property rights, and cybercrime. The course also examines issues concerning the use and development of developing and emerging technologies that may involve computers or be used by computing or engineering professionals. Prerequisite ENGR 100, ENGR 115, or CS 110. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
ENGR-222	ENGINEERING GRAPHICS & DESIGN	Introduction to engineering design methodology. Extensive use of AutoCAD® software for 3D designs. Three credits.
ENGR-223	STATICS	Forces in a plane and in space. Equivalent system of forces. Equilibrium of rigid bodies. Centroids and centers of gravity. Moments of inertia. Analysis of structures. Friction. Vectors used extensively. Prerequisites: PH 111 and MA 112. Three credits.
ENGR-224	DYNAMICS	Kinematics of particles. Kinetics of particles by: (a) force, mass, and acceleration, (b) work and energy, (c) impulse and momentum. Kinematics of rigid bodies. Plane motion of rigid bodies by: (a) forces and accelerations, (b) energy and momentum methods. Mechanical vibrations. Vectors used extensively. Prerequisite: ENGR 223. Three credits.
ENGR-226	MATERIALS ENGINEERING	An introductory materials science and engineering course. Students learn about the influence of the structure of materials and inherent defects in materials on ultimate properties and performance. The emphasis is on strength and failure of metals, ceramics, and polymers, but electrical and thermal properties are also considered. Case studies are used to illustrate many of the instructional modules. Prerequisites: CH 102 and MA 111. Three credits.
ENGR-228	MATERIALS ENGINEERING LAB.	This is the laboratory course that supports Materials Engineering ENGR 226. Students will learn to mount, polish, and view metallic specimens. Students will perform hardness tests and will heat treat metallic specimens to alter their properties. Exposure to Scanning Electron Microscopy will be included in the course. Students will be given load versus displacement data and asked to generate stress-strain curves and to interpret these curves. The course includes corrosion modules. Laboratory reports will be submitted after each experiment. One credit.
ENGR-240	ENGINEERING DESIGN & LAB	Overview of the engineering design process. Applying applied mathematics and science in designing a product or process that meets specified criteria. Defining requirements, analyzing options, working with teams on design projects. Fee. Prerequisites: ENGR 100 and ENGR 115 or CS 110. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
ENGR-261	INTRO TO ELECTRICAL CIRCUITS & ELECTRONICS	Covers the fundamental aspects of electronic circuits. Topics include voltage and current sources, measurement techniques, the principles and application of impedance, Kirchhoff's Rules, Thevenin's Theorem, semiconductors, solid-state devices, amplifiers and feedback, boolean algebra, digital logic, Karnaugh Maps, programmable logic, FPGA's, memory, and microcontrollers. Extensive use is made of Electronic Design Automation (EDA) software to allow students to follow circuit design from circuit analysis and schematic diagram to finished printed circuit board artwork. Must be taken in conjunction with ENGR 263 Electronics Laboratory. Prerequisites: PH 112 and MA 112. Offered fall semester. Three credits.
ENGR-263	INTRO ELECTRICAL CIRCUITS LAB	Laboratory course to accompany ENGR 261 Electronics. Provides hands-on experience with real world circuits along side the more theoretical development presented in ENGR 261. Includes measurement techniques, passive filters, transistor and operational amplifiers, combinational and sequential digital logic, and microcontrollers. Also includes design and fabrication of printed circuit boards and soldering techniques for both through-hole and surface-mount components. Co-requisite: ENGR 261. One credit.
ENGR-266	CONTROL THEORY	Automatic control, through the use of feedback, is widely used in all branches of engineering. In mechanical engineering it is used to control physical dynamic systems, in chemical engineering it is used in process control, in electrical and computer engineering it is used in robotics, and in bioengineering it is used to analogize the nervous system. These are only a few examples of the multitude of applications for automatic control. This course will introduce the basics of automatic controls by covering the following concepts: modeling of dynamic systems, the Laplace transform, stability analysis of linear systems, and feedback control design. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
ENGR-313	ENGINEERING SEMINAR	This course is designed to review engineering topics to be included on the Fundamentals of Engineering Exam taken by graduating seniors as the first step toward State Certification. One credit.
ENGR-320	MECHANICS OF MATERIALS	Mechanics of materials analyzes the elastic deformations in structural components. Axial, torsional, and bending loading of shafts, deflections of beams, stresses and strains in tubes and pressure vessels are addressed. The state of stress resulting from combined loading conditions is described using general equations. Three-dimensional definitions of scalar stress and strain variables are reviewed. Exact solutions to mechanics problems as well as numerical solutions using the finite-element-method are included. Three credits.
ENGR-325	ADV. STRENGTH OF MATERIALS	Constitutive relations for deformation in metals. Contributions to strength and modeling of these contributions using an internalstate variable constitutive law. Predicting strength for novel strengthening mechanisms or for model materials. Prerequisite: ENGR 226. Three credits.
ENGR-340	HEAT AND MASS TRANSPORT	Study of the mechanisms of heat and mass transport: diffusion, transport rates, differential mass and energy balances. Applications to chemical separation processes, materials processing, and heat exchange. Three credits.
ENGR-425	ENGINEERING PROJECT MANAGEMENT	Introducing concepts related to engineering project management. Defining roles and responsibilities, analyzing program risk, developing schedules and budgets. Integrating concepts of quality,continuous improvement, teaming. Prerequisite: ENGR 240. Three credits.
ENGR-440	CAPSTONE DESIGN PROJECT I	Design project independently conceived and performed by a student or, in special cases, a collection of students. Work with a faculty member as a mentor. Write and present a project proposal and write and present a final report. Prerequisite: ENGR 240. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
ENGR-441	CAPSTONE DESIGN PROJECT II	Continuation of ENGR 440. Design project independently conceived and performed by a student or, in special cases, a collection of students. Work with a faculty member as a mentor. Write and present a project proposal and write and present a final report. Prerequisite: ENGR 440. Two credits.
ENGR-550	ENGINEERING INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are awarded according to the extent of the work experience. Students may or may not be paid depending on the site. The purpose of the program is to integrate academic studies and employment activities. May be repeated. Variable credit.
HI-00X	HISTORY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
HI-102	WESTERN CIVILIZATION I: ANCIENT GREECE TO ROME	This course explores the early development of Western Civilization by surveying the history of the ancient Greeks and Romans, ca. 800 - A.D. 500. Topics include: the influence of the older civilizations of the Mesopotamians, Egyptians, and Hebrews; the Mycenaeans and the Trojan War; the rise of Greek city-states; the Persian and Peloponnesian Wars; Alexander the Great and the Hellenistic world; the Roman Republic and the formation of empire; the birth and spread of Christianity; the Roman imperial state; and the disintegration of the Roman world. Three credits.
HI-102H	HONORS WESTERN CIVILIZATION I	HONORS COURSE. This course explores the early development of Western Civilization by surveying the history of the ancient Greeks and Romans, ca. 800 - A.D. 500. Topics include: the influence of the older civilizations of the Mesopotamians, Egyptians, and Hebrews; the Mycenaeans and the Trojan War; the rise of Greek city-states; the Persian and Peloponnesian Wars; Alexander the Great and the Hellenistic world; the Roman Republic and the formation of empire; the birth and spread of Christianity; the Roman imperial state; and the disintegration of the Roman world. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-103	WESTERN CIVILIZATION II: 1300-1800	This course examines the continuing development of Western Civilization by surveying the history of Europe, ca. A.D. 500 - 1800. Topics include: the Germanic invasions and the transformation of the Roman Empire; Charlemagne and the Carolingian world; the development of church and state in the High Middle Ages; the 12th -century Renaissance; the Crusades; the Black Death; the Italian Renaissance; Reformations and the Wars of Religion; the Age of Exploration; the rise of modern nation-states; the Scientific Revolution; and the Enlightenment. Three credits.
HI-104	CONTEMPORARY EUROPE I	In this course we will focus thematically on the political, social, economic, and cultural development of Europe in the 17th-19th centuries. Lecture topics include: comparisons of different political structures present in Europe and the Americas, the geography of Europe and its colonial possessions, the Scientific Revolution and the Enlightenment, the French Revolution, the Industrial Revolution, national unification movements, Romanticism, liberal revolutions, the growth of science, and the Age of New Imperialism. Extensive use of audio/visuals. Map work. Three credits.
HI-104H	CONTEMPORARY EUROPE I	HONORS COURSE. In this course we will focus thematically on the political, social, economic, and cultural development of Europe in the 17th-19th centuries. Lecture topics include: comparisons of different political structures present in Europe and the Americas, the geography of Europe and its colonial possessions, the Scientific Revolution and the Enlightenment, the French Revolution, the Industrial Revolution, national unification movements, Romanticism, liberal revolutions, the growth of science, and the Age of New Imperialism. Extensive use of audio/visuals. Map work. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-105	CONTEMPORARY EUROPE II	In this course we will focus thematically on the political, social, economic, and cultural development of Europe from the late 19th through the end of the 20th century. Lecture topics include: World War I, the Great Depression, the Spanish Civil War, World War II, Modern Art, the loss of colonies, the Cold War and its aftermath, and European economic and political unification. Explicit comparisons will be made between the different social, economic, and political structures present in Europe and America in the 20th century. We will discuss the geography of Europe and her colonies. Extensive use of audio/visuals. Map work. Three credits.
HI-106	TOPICS IN U.S. HISTORY TO 1865	This course surveys American History from the Colonial Era to the Civil War. Using a topical approach, the class will read about and discuss a wide variety of topics in the economic, social, political, and intellectual history of the United States. Three credits.
HI-106F	TOPICS IN US HISTORY TO 1865	FIRST YEAR SEMINAR. This course surveys American History from the Colonial Era to the Civil War. Using a topical approach, the class will read about and discuss a wide variety of topics in the economic, social, political, and intellectual history of the United States. Four credits.
HI-107	TOPICS U.S. HISTORY SINCE 1865	This course surveys American History from the end of the Civil War in 1865 to recent times. A variety of readings introduce students to questions that historians are asking about the modern history of the United States. Three credits.
HI-107F	TOPICS IN US HIST. SINCE 1865	FIRST YEAR SEMINAR. This course surveys American History from the end of the Civil War in 1865 to recent times. A variety of readings introduce students to questions that historians are asking about the modern history of the United States. Four credits.
HI-107H	HONORS US HIST. SINCE 1865	HONORS COURSE. This course surveys American History from the end of the Civil War in 1865 to recent times. A variety of readings introduce students to questions that historians are asking about the modern history of the United States. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-108	TRADITIONAL EAST ASIAN SOCIETIES	This course surveys China, Korea, and Japan from ancient times to the year 1600. It offers an introduction to the social, political, religious, and aesthetic ideas that together have formed the foundations of Chinese and Japanese civilizations. Three credits.
HI-108F	EAST ASIAN SOCIETIES	FIRST YEAR SEMINAR. This course surveys China, Korea, and Japan from ancient times to the year 1600. It offers an introduction to the social, political, religious, and aesthetic ideas that together have formed the foundations of Chinese and Japanese civilizations. Four credits.
HI-109	MODERN EAST ASIAN SOCIETIES	This course covers the histories of China, Korea, and Japan from 1600 to the present. The interaction of these countries with the rest of the world and their modern evolution and development is a central focus. Topics such as communism, the Pacific War, the Cultural Revolution, and the contours of contemporary Asian society are also considered. Three credits.
HI-110	ENGLISH HISTORY TO 1485	This course traces the development of British life and institutions from the Celts to the Tudor Revolution in 1485. The lectures will discuss the following topics: early invasions, Anglo-Saxon society, the Norman Conquest, kingship and the royal prerogative, the growth of common law, the development of Parliament, and the role of the Roman Church in English society. The personality of various monarchs and statesmen will be treated in respect to their contribution to the emergence of systematized government. Three credits.
HI-111	ENGLISH HISTORY: 1485 TO PRESENT	This course covers British history from the Tudors to Margaret Thatcher. Areas to be discussed include: the Reformation of Henry VIII and Elizabeth I, the Puritan Revolution, Industrialism, Victorianism, the 20th century welfare state, the rise and decline of the British empire, the position of Great Britain in the 20th century with emphasis on the British rule in Ireland, World War I, and the European Economic Community. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-111H	HONORS -- ENGLISH HISTORY	HONORS COURSE. This course covers British history from the Tudors to Margaret Thatcher. Areas to be discussed include: the Reformation of Henry VIII and Elizabeth I, the Puritan Revolution, Industrialism, Victorianism, the 20th century welfare state, the rise and decline of the British empire, the position of Great Britain in the 20th century with emphasis on the British rule in Ireland, World War I, and the European Economic Community. Three credits.
HI-122	HAITI -- WINDOW ON OUR WORLDS	This international "service learning" course combines academic learning and critical reflection with relevant service in a rural Haitian community to enable students to identify critical, global issues affecting Haiti and to deepen their understanding of cross-cultural issues and the connections between the US and countries like Haiti. Through this experience students also grow in their awareness and understanding of self and contribute to building a global "culture of solidarity" and engaged citizenship at St. Vincent College. This course requires travel to Haiti during the spring break in order to complete the "relevant service" component. One credit.
HI-123	GLOBAL HISTORY I	This course surveys the origins, development, development, and decline of the world's early civilizations, empires, and regional states. Taking a comparative approach, it examines complex and diverse societies in relation to each other. What geographic, economic, social and cultural factors molded these societies? How have different peoples interpreted, depicted, and shaped the worlds in which they lived? Three credits.
HI-124	GLOBAL HISTORY II	This course focuses on the increasing interactions among the world's societies since the 15th century. It begins with the age of Columbus and ends with the contemporary world. Topics include imperialism, industrialization, nationalism, revolution, and war. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-201	INTRODUCTION TO PUBLIC HISTORY	<p>This class explores the connections between historical understanding and the interpretation of history in the public realm. While studying a period of local history in traditional academic sources, students will be introduced to a wide range of professional settings that cater to public audiences of all ages. Students will learn about the opportunities and challenges of presenting history through such varied methods and mediums as archives, museums, historic preservation organizations, historic sites and historical agencies. Through readings, discussion, field trips and projects, the class will explore the development of the field of Public History. This class serves as an introduction to HI 202: Practicum in Public History but can be taken independently. It is limited to freshman and sophomore students unless you have the permission of Dr. Karen Kehoe to enter the class. Three credits.</p>
HI-202	PRACTICUM IN PUBLIC HISTORY	<p>In this course we will apply the research, analysis and writing skills of a historian in order to develop and complete a project for the use and benefit of an audience outside of academia. Students will work as a part of a team and will be responsible for all aspects of the project from defining the purpose of the project to its final presentation to the public. Possible projects include nominations of historic properties to the National Register of Historic Places, the creation of a museum exhibit, the creation of historic tourism guides and brochures, grant writing or an oral history project. Prerequisite: HI 201, Introduction to Public History or permission of instructor and department chair. Three credits.</p>
HI-203	MODERN INTELLECTUAL HISTORY	<p>This course will examine the history of ideas in the West from the Scientific Revolution and Enlightenment through the present. Students will consider intellectual developments in the context of history to more fully integrate their understanding of human events and the ideas that inform them. The focus of this course will be cultural, with extensive use of images, films, and primary texts. Seminar format. Discussion-based. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
HI-205	PRIESTS, POETS AND PEASANTS: MEDIEVAL THOUGHT AND CULTURE	This course focuses on selected aspects of thought and culture in Western Europe from 500 to 1500, the millennium that has been called the Middle Ages. Lectures, readings, and discussions will cover such topics as monastic life, philosophical thought, church and state, the crusading movement, chivalry and courtly love, peasant life, and the Black Death. The purpose is to introduce students to a fascinating yet often neglected part of our cultural heritage. Three credits.
HI-206	ACUPUNTURE TO ALCHEMY: MEDI HIST TOPICS	Chinese and Western medical theories and practices both have ancient and divergent roots. Though significantly different, the development of Chinese and Western medicine has followed similar trajectories, and in both the ancient and the modern display a series of interesting parallels. This class will examine and explore topics common to both traditions, such as traditional medicine, medical theories, the professionalization and "modernization" of medicine, irregular, or quack medicine, and gender in medicine. Activities include: Lecutre, readings, online databases and projects. Three credits.
HI-207	AMERICAN WOMEN, AMERICAN WARS	A study of the effects of warfare on the history of American women and of the ways that American women have influenced war. We will use class readings from both primary and secondary sources, discussion, and film analysis to study the lives and influences on women during the American Revolution, the Civil War, World Wars I and II, the Vietnam Conflict, and the modern Gulf Wars. Three credits.
HI-208	MODERN CHINA	This course focuses on late imperial and modern Chinese history from 1600 to the present. It includes study of the Ming and Qing dynasties, as well as the Nationalist and Communist governments of the 20th century. Three credits.
HI-208H	HONORS -- MODERN CHINA	HONORS COURSE. This course focuses on late imperial and modern Chinese history from 1600 to the present. It includes study of the Ming and Qing dynasties, as well as the Nationalist and Communist governments of the 20th century. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-209	ISSUES IN CONTEMPORARY EAST ASIA	This course examines some of the most important issues in the world today: environmental degradation, health and human rights, gender inequities, and international relations. We will explore each of these topics in depth, using historical and contemporary primary and secondary sources, in relation to the countries of East Asia. Three credits.
HI-211	SWORD & SIEGE: WAR IN MEDIEVAL EUROPE	This course will examine selected aspects of European military history from the 5th through the 15th centuries. Students will study not only military campaigns and technology, but also the interplay between warfare and society during this fascinating period. Three credits.
HI-212	AMERICAN WOMEN'S HISTORY	Women's experience in the past helps us understand the history of the United States. This course will examine the themes that defined women and have helped to determine the shape of women's lives today. The lectures, readings, and films will focus on the ways that women's roles as they relate to family, work, politics, and culture have varied over time. We will consider carefully the ways that women have dealt with the definitions of the feminine that society enforced, and will look especially at how women have altered those norms. The course will emphasize the diverse understandings of those issues. Students can expect to do extensive reading and writing, participate in class discussions, and complete a substantial research project. Three credits.
HI-213	MYSTICS, MAIDS, AND MONARCHS: WOMEN IN MEDIEVAL EUROPE	This course will examine, both collectively and individually, the lives and experiences of women in Europe from the 5th through the 15th centuries. The goal is to understand better how medieval women fit into and occasionally influenced the largely patriarchal society in which they lived. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-214	MODERN IRELAND	This course will introduce the student to the social, political, economic, and religious dimensions of Ireland from the French Revolution to the Hunger Strikes at the Maze Prison. After brief remarks about the Ireland of Cromwell and William III, 19th century Ireland will be presented within the framework of the British Empire. Some topics are: Catholic Emancipation, Daniel O'Connell, the Famine, the problem of the land and agrarian violence, William Gladstone and the crisis of Home Rule, and the career of Charles Stewart Parnell. The second half of the course will discuss the emergence of the Republic of Ireland and the province of Ulster. Lloyd George, Eamon de Valera, the Easter Rising, and the current problems concerning Ulster are the subjects of the lectures. Can Ireland ever become a united island? Three credits.
HI-216	AMERICAN COLONIAL HISTORY	This course is designed to give students an in-depth grounding in many of the major issues relating to the creation and development of colonial North America. Placed in an Atlantic World context, we will study the social consequences of colonization, migration, and war in America from 1400-1775. Emphasis is placed on the interaction of British colonies with competing European cultures (French, Dutch, Portuguese, and Spanish) as well as with Native Americans, and with African American slaves. We will explore these interactions through lectures, readings, films and discussions. Three credits.
HI-220	THE DEVIL & THE PROBLEM OF EVIL IN WESTERN THOUGHT	This course is an examination of the problem of evil in Western thought, with special attention to the personification of evil in the devil. We will examine the historical emergence of the devil as a being distinct from God in the ancient civilizations of the Middle East. The course will then consider in turn: The devil in the Old and New Testament; his treatment in the West from medieval Christianity to the Renaissance and Reformation; the impact of the Enlightenment on the problem of evil in western thought; and the modern psychological approach to evil and the question of possession. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-223	REVOLUTIONARY AMERICA 1740-1820	<p>This course will examine the social, political, economic, cultural, and religious ferment in Colonial America that led to the transition from colonies of the British Empire to the revolutionary republic of the United States. The role of women, minorities, and indigenous people, Enlightenment ideology, the Great Awakening, the American Revolution, and the struggle over the Constitution will be highlighted. Western Pennsylvania was the stage for many of these dramatic events and this course will utilize as fully as possible local public history resources having to do with the period from the French and Indian War to the Whiskey Rebellion of 1794. The course will spend several classes on 18th and early 19th century historical interpretation in museums and historic sites and museum methodology, and explore career possibilities in museums and public history. There will also be guest speakers from local historical sites. Three credits.</p>
HI-224	NATIVE AMERICAN HISTORY & CULTURE	<p>This course will examine the history and cultures of selected nations of indigenous people who inhabited the North American continent beginning as early as 40,000 B.C. We will look at the sociocultural/religious, political and military history of each nation, the details of everyday life, gender relations and kinship systems, division of labor and economics. Areas of particular concern will be the relationship of indigenous nations to the European populations of America in the colonial period. We will then explore the relationship between the indigenous people of North America and the United States of America from the Revolution to the present. Designated non-Western. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
HI-226	SOCIETY AND THE ENVIRONMENT: THE AMERICAN EXPERIENCE	Students in this course will explore the way that humans have interacted with their environment in what is now the United States from pre-colonial contact to the present day. We will explore two great questions in a number of different times and places, seeking answers that should inform our interaction with the environment today. How and why has society shaped the American environment, and how and why has that environment shaped our social, cultural, economic, and political lives? Finally, we will look at ourselves looking at our interaction with the environment in our focus on the emerging environmental movement of the 20th century. Three credits.
HI-227	BRING OUT YER DEAD!: THE MIDDLE AGES ON FILM	This course uses movies as springboards for exploring selected aspects of medieval European society and outlooks. The focus is on the relationship between the "real" Middle Ages, how historians have reconstructed the period using primary sources, and the "reel" Middle Ages, how filmmakers have reconstructed the period for popular consumption. Although the films used may change, in the past they have included "Kingdom of Heaven," "Lion in Winter," "The Passion of Joan of Arc," and of course, "Monty Python and the Holy Grail." Offered only in selected summer sessions. Three credits.
HI-228	20TH CENTURY AMERICA	Through a study of documents, personal testimony, and written reports on historical problems, and through discussions and lectures, students are encouraged to examine evidence and to think 'historically' about persons, events, and movements within the memory of their own and their parents' and grandparents' generations. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-231	BLOOD AND ROSES: ENGLAND IN THE LATE MIDDLE AGES	This course explores the history of England during the turbulent 14th and 15th centuries, a time of transformation and upheaval in government, religion, war, and economic life. Topics include the Hundred Years' War, the Black Death, the growth of parliaments, the Peasant Revolt, the Lancastrian Revolution, the Lollard movement, the Anglo-Scottish struggles, and the Wars of the Roses. Students will thus examine one of Western Civilization's greatest nation-states during a crucial period in its development. Three credits.
HI-232	RACE & ETHNICITY IN HISTORICAL PERSPECTIVE	This course explores the role that the social phenomena of race and ethnicity have played in shaping Americans' lives in the past 400 years. We will focus on the formal legal structures that Americans established to regulate racial and ethnic experiences (slavery, restrictive covenants, laws, etc.), the less formal but often equally powerful social customs that governed people's opportunities, the experiences of those who had to navigate those formal and informal structures, as well as the efforts of those who have tried to create a society that lives out the ideals set out in the Declaration of Independence. Designated non-Western. Three credits.
HI-233	HISTORY OF LATIN AMERICA	This course will trace the history of Latin America from the major pre-Columbian civilizations through the early 19th century. The focus of the course will revolve around the conflict between cultures, their transformation, and creation of new cultures. Discussion topics include: the Maya, Inca and Aztec civilizations, the discovery and founding of Spanish and Portuguese empires in the New World, development and integration of the empires into the world economy, the creation of new American cultures, the struggle for independence, and the problems of the new nations through the 19th century. Extensive use of maps, images, and primary source readings. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-236	WORLD WAR II IN EUROPE	<p>This is a general course in the history of the European theater of the Second World War. The war's origins will be studied in some detail, beginning with the tenuous reconstruction of the European state system in the wake of World War I and the rise of the Fascist regimes that challenged this system. The historical, economic, social, and ideological determinants of German expansionism will then be discussed and related to the outbreak of war in Europe. Although much attention will be focused on the evolution of Allied and Axis strategy and the development of the military struggle between 1939 and 1945, the war's all-encompassing nature necessitates that such topics as propaganda, economic mobilization, occupation policies, and the Holocaust also be discussed. The course will conclude with an analysis of war-time diplomacy, the post-war settlement, and the onset of the Cold War. Class instruction will take the form of lectures, discussions, group activities, videos, and other instructional modalities deemed appropriate and effectual by the instructor. Three credits.</p>
HI-242	RENAISSANCE EUROPE: 1300 TO 1500	<p>This course will explore the development of the European Renaissance from the late Medieval period through the beginning of the Reformation. The course will explore the 'rebirth'+G523 of European culture, Arts, Language, Religion, Architecture, Politics, and Literary movements throughout one of the richest historical periods in Western Civilization, the Renaissance. Three credits.</p>
HI-245	COLONIES AND EMPIRE: EUROPE AND THE WORLD	<p>This course explores the dynamic of colonialism between the 18th and mid-20th centuries. We will use a global perspective to look at the relationship between European countries and their colonial possessions during and after the colonial era. In particular, we will consider the causes and justifications for colonialism and the acquisition of empire, as well as its economic, religious, social, ethnic, and political implications for both the European and colonial nations. Extensive use of images, films, and maps. Designated non-Western. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
HI-247	CATHOLIC AND PROTESTANT REFORMATIONS REFORMATIONS	The general themes of the course will be the continuities and discontinuities of the reform movements of the 16th century (Protestant and Catholic) with the late medieval period, and the relation, variety, and interchange between the various reform movements in different regional and social contexts. Emphasis will be placed on religion in the European context, but some attention will be paid to mission fields, and the impact of the 'new world' discoveries on church and society. Three credits.
HI-248	THE HISTORY OF THE CHRISTIAN CHURCHES I CHURCHES I TO 1500	This course will explore the development of Christianity from the first century A.D. through the end of the Renaissance period. The course will highlight such historical epochs of Christianity as the Apostolic period, the age of the Fathers of the Church, the monastic movement, the men's and women's religious movements of the Middle Ages, the Schism between the Eastern and Western Churches and the Church in the Renaissance period. Offered alternate years. Three credits.
HI-249	THE HISTORY OF THE CHRISTIAN CHURCH II: 1500 TO PRESENT	The second part of the course will explore Christianity during the periods of the Protestant Reformation, The Catholic Reformation, religious pluralism, the Enlightenment and Age of Revolutions, 19TH century movements in Christianity, the Church and the World Wars, the Second Vatican Council and Christianity in the post-modern world. Offered alternate years. Three credits.
HI-251	WAR & ENLIGHTENMENT: EUROPE IN THE 18TH CENTURY	This course deals with the so-called 'long'+G528 eighteenth-century, which lasted from 1688 (the year of the Glorious Revolution in England) to 1815, the year of Napoleon's defeat at Waterloo. This was a crucial time, as it brought dramatic changes to the social fabric, political institutions, economies, and cultures of Western Europe. We will look at these developments in some detail, focusing on the Enlightenment, 17th and 18th century political theories and institutions, the rise of the middling classes, and the evolution of modern warfare. Treatment will be both chronological and thematic, with ample use of films, maps and images to help set the scene for historic events. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-253	RELIGION AND SOCIETY: THE AMERICAN EXPERIENCE	Opinion polls taken from the 1940s through today report annually that over 90 percent of Americans believe in God. Our earliest institutions, when they were not churches themselves, reflected a strong religious influence. Americans have felt religious competition so keenly in various times in our history that they have rioted in support of one denomination over another. Why was (is) this so? How have Americans experienced, thought about, and manifested their various religious beliefs throughout our history, and how have Americans interacted with fellow citizens of differing beliefs? How has religion influenced the development of our current institutions, and why do Americans believe what they do? This course examines these and other issues connected to American religious development. Three credits.
HI-254	DOCUMENTARY HISTORY	This course explores the video documentary as a text that conveys history. Americans increasingly learn their history from video documentaries, but historians are just beginning to address these texts in a sophisticated manner. Students will analyze historical documentaries critically by viewing the videos, reading critical analyses of them, and participating in discussions of these texts. They will then write their own critical analyses of the documentaries. The documentaries that the course examines will vary from semester to semester, but they will mostly be texts designed to convey historical information. Students will also participate in the production of a documentary on a historical event or development. Three credits.
HI-255	AMERICAN ECONOMIC HISTORY	This course examines the development of the various forms our economy has taken over the past four centuries or so, as well as upon various developments within the economy in the form it takes currently. Though we will discuss the economy as a human social construction, we will also explore other perceptions of the economic organization (is it a 'natural' phenomena?) and pay special attention to developing Catholic perceptions of the economy and economic life. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-257	MOVIES, SPORTS, & TOYS; AMER. CULT. HIS	This course explores various American cultural manifestations in historical context. We experience our lives through cultural constructions that mediate our understanding of our world, and this course will target various forms each semester. The specific cultural forms may vary each time the course is taught, but will likely come the broad categories of recreation (sports, games, television, movies, other leisure activities), work (factories, farms, markets, transportation), religion (liturgies, revivals, devotions, sects, holidays), home (family, architecture, neighborhood), art (literature, music, painting and sculpture) and formal public expressions. Three credits.
HI-258	PENNSYLVANIA HISTORY	This course explores the development of Pennsylvania from the pre-European era to current times. The topics covered will include the diversity of the Commonwealth, Pennsylvania's key roles in the development of the United States, and the sources and methods that can be used to uncover the history of the state. Three credits.
HI-259	THE CIVIL WAR IN THE UNITED STATES	Students in this course will study the period leading up to and away from the Civil War, focusing on those areas commonly known as the ante-bellum period, the Civil War, and Reconstruction. We will address slavery, culture, and social change in the nation in the early part of 19th century, explore the political efforts to deal with these contentious areas, and study the military manifestation of that political divide. Finally, we will explore the world the war made as we study the Reconstruction era. The course will require extensive reading, discussion, and much formal writing, culminating with a substantial research paper. Three credits.
HI-263	PLAY BALL - THE HISTORY OF SPORT IN 20TH CENTURY AMERICA	This course examines the history of sports in 20th century America, with particular attention paid to the development transition from amateur to professional athletics, the emergence of women's participation in sports, and the fitness focus of the most recent three decades. Students will approach this study through class discussions based on readings and video documentaries. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-264	HORSES, HARDTACK AND HEROES	<p>This course uses Hollywood films and literature to explore some of the major themes and events of the American Civil War. Film is a major influence in mass culture and has helped to create and disseminate messages about the past. We will examine the strengths and the limitations of film and popular literature as conveyors of the truth about the past. Three credits.</p>
HI-266	FOOD IN U.S. HISTORY	<p>The food that people eat and the methods used to procure and store that food can help to explain much about their cultures and their values. Taught through lecture, film, discussion, exploration of material culture and through student research, this food history course will explore the evolution of the American diet and try to unravel the way that food choices influenced people's lives and the development of our nation from the colonial period until the present day. Three credits.</p>
HI-267	HOUSES AND HIGHRISES; INDUSTRIALIZATION AND EXPERIENCE IN THE GILDED AGE	<p>In 1913, Ezra Pound celebrated the Manhattan skyline: "Squares and squares of flame, set and cut into the ether. Here is our poetry, for we have pulled down the stars to our will." As Americans entered the twentieth century, there was a growing gap between those who shared Pounds' outlook and those who were left in the dark. This course will use the built environment and material culture, in addition to traditional sources and digital history, to explore the decades leading up to Pound's observation. Students will uncover how and why America moved away from its agrarian past by analyzing different experiences of industrialization through major themes of the era, including business and labor, poverty, political corruption, Imperialism, and racism. Issues of modern day interpretations of the era and relevance to current events also will be discussed. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
HI-268	BUILDING THE PAST: HISTORIC PRESERVATION IN AMERICA	How might Americans best study and preserve our past? This seminar explores the history, theory, and practice of historic preservation in the United States. Using directed readings, illustrated lectures, and case studies, the course will provide students with an understanding of the origin, development, and practice of the field of historic preservation; a basic knowledge of American architectural building styles; and an exploration of the workings of the National Register of Historic Places. Students will confront the questions: What is preserved? Why is it preserved? For whom? Three credits.
HI-270	THE RISE OF CHINESE CIVILIZATION	This course will offer an in-depth survey of China's history from the Neolithic age to 1600, and focus on the political, social, and religious evolution of Chinese civilization and how it interacted with its neighbors over time. HI 108 recommended precursor. Three credits.
HI-274	CHINA AND JAPAN IN FICTION AND FILM	This course examines political, social, and cultural changes in Japan and China through the lens of literature and film. The class will center on discussions of common themes in the texts and films, including gender ideals and ideologies, narratives of heroes and redemption, violence as an art form, production of national myths, and the role of historical forces in shaping past and contemporary national identities.
HI-279	THE HISTORY OF AMERICAN CHILDHOOD	This course will focus on the history of American childhood from 1600 to the present day. It will address issues such as child rearing practices, childhood experiences, the emergence of the "teenager" as a separate social category, and the ways that gender, race, ethnicity, class, and religion have shaped childhood across time. The course will necessarily focus on the ways that historians have studied childhood over time, and will ask students to utilize some of these approaches as they conduct their own research papers. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-280	ISLAMIC CIVILIZATION I	Islamic Civilization will examine the religion, politics and culture of the Islamic world from pre-Islamic Arabia, through the 13th century Mongol invasions. Special attention will be paid to the life of the Prophet, beliefs, practices and divisions within Islam, the Caliphate, the Umayyad and Abbasid empires and successor states, historic areas of contact and conflict between Islam, Christianity and Judaism. Treatment will be both chronological and thematic, with use of films, maps and images to help set the scene for historic events. Three credits.
HI-281	ISLAMIC CIVILIZATION II	This course is designed as a stand-alone complement to HI 280. Islamic Civilization II will examine the religion, politics, and culture of the Islamic world from the Mongol invasion of the 13th century, the rise of the Turkic peoples, the development and decline of the Ottoman Empire, through its fall at the end of WWI. Time permitting, the course will examine the independence of Middle Eastern territories, and the foundations of nationalism as a force in modern Islamic countries. Treatment will be both chronological and thematic, with use of films, maps and images to help set the scene for historic events. Three credits.
HI-282	AMERICAN CHILDHOOD HISTORY	This course explores topics in the history of American childhood. Topics will vary from semester to semester, but may include such developments as the "invention" of childhood in America, the "discovery" of the teenager, children's experiences in the home, the school, the workplace, the family, and society. It will inevitably focus on changes in childrearing patterns, the ways that society imagined and presented children through media, and children's legal status. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-284	ROBBER BARONS AND SUFFRAGETTE	<p>This class will analyze a variety of social movements from the Nineteenth and Twentieth Centuries and look at the underlying causes that inspired action among these benevolent organizations. The class will focus on how and why these movements have evolved over time through their composition, strategies, issues, and effectiveness. We will focus on the structure, gender, and class makeup of these movements. Reform minded individuals banded together to combat poverty, slavery, drinking, prostitution, child labor, suffrage/anti-suffrage, civil rights and combating the many other "evils" of society through political and social change. Three credits.</p>
HI-300	THE HISTORIANS PROFESSION	<p>History majors will take this introduction to the profession in the fall or spring semester of their sophomore year. In the course, students will become acquainted with varieties of internships and career paths available to history majors. Students will also receive intensive instruction in basic research methods for historians, including such things as developing a research plan, thoroughly learning the library's layout, becoming familiar with finding aids, using historical journals, understanding ILL, evaluating and using the Internet as a research tool, proper use of primary and secondary sources, and mastering citation practices. Finally, students will become familiar with ethical issues and expectations related to historical writing and careers. Majors only. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
HI-301	JUNIOR RESEARCH SEMINAR	History majors will take this the spring semester of their junior year. The purpose of this seminar is two-fold. The primary goal will be for the student to prepare to write the senior thesis. Students will be asked to identify a research topic of interest, and then develop a viable thesis topic. Following that, students will complete preliminary source identification, write a literature review (historiographic essay), thesis outline, and bibliographies. By the end of the semester, students will be well poised to complete the thesis in HI 302 the following fall term. The second goal of the Junior Research Seminar will be the mastery of types of writing typically encountered in the profession, as well as conventions and considerations that go along with historical scholarship and writing. Majors only. Three credits.
HI-302	SENIOR WRITING SEMINAR	History majors will take this course in the fall semester of their senior year. The purpose of this seminar is to produce a scholarly piece of research and writing. The senior project, or thesis, must be organized around a scholarly thesis statement or question, utilize appropriate primary and secondary sources, and adhere to the conventions of historical writing learned in HI 300 and HI 301. The thesis will be completed by the end of the fall semester. Students will have the opportunity to present a version of the final project at spring conferences or colloquia. Majors only. Three credits.
HI-306	INTRODUCTION TO NONPROFIT ORGANIZATIONS	The purpose of the Introduction to Nonprofit Organizations course is to familiarize students with the structure, unique characteristics, and operating environment for nonprofit organizations. The course will offer a broad overview of the nonprofit sector, particularly the centrality of the mission statement in planning and decision making, working with volunteer boards of directors, accountability and ethics, fund raising and financial management. This course does not fulfill history core requirements, or history major 200 level requirements. This course does fulfill public history minor credit requirements and elective requirements. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
HI-307	INTRODUCTION TO NONPROFIT FUNDING NONPROFITS	An essential function for all nonprofits is to strategically determine revenue sources and develop effective mechanisms to raise funds. This purpose of this course is to provide students with a brief history of philanthropy, familiarize them with the principles of fundraising and to help them develop skills and competency in fundraising methods-special events, direct mail, major gifts, grant writing, capital campaigns and planned giving-G559within a competitive funding environment. It is appropriate for students who may work or volunteer with nonprofits in the future as well as for those who are currently working with nonprofits organizations in a staff or volunteer capacity. This course does not fulfill history core requirements, or history major 200 level requirements. This course does fulfill public history minor credit requirements and elective requirements. Three credits.
HI-350	INDEPENDENT STUDY--HISTORY	May be repeated. Course requirements to be developed in consultation with supervising faculty. Variable credit.
HI-550	HISTORY INTERNSHIP	Professional work experience in the community, which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency. Students must receive departmental approval to participate. This course will additionally serve as the capstone course in the Public History Minor. May be repeated. Variable credit.
BIN-00X	BIOINFORMATICS EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.

COURSE	TITLE	COURSE DESCRIPTION
BIN-218	BIOINFORMATICS, GENOMICS, AND PROTEOMICS	<p>An introduction to various techniques used in bioinformatics, including the algorithms and statistical concepts upon which they are based. The focus is on comparison and analysis of DNA and protein sequences. Students will learn about the types of biological questions that can be addressed using computational methods, and develop a deeper understanding of the computational tools available to address these questions. This understanding will be demonstrated in an end-of-semester project. Topics covered will include pairwise sequence alignment, sequence database searching, multiple sequence alignment, genome analysis, protein structure analysis, and microarray analysis. Students majoring in any of the natural sciences, computing and information science, or mathematics are encouraged to take the course. Prerequisites: BL 150-154 (for Biology and Bioinformatics majors) or NSCI 230-231 (for all others). Offered every other Fall semester (Fall 2013). Three credits.</p>
BIN-219	BIOMEDICAL INFORMATICS	<p>An introduction to a variety of data types, databases, and data structures used in bioinformatics. The focus is on relational databases and integration of diverse data types in a biomedical context. Students will learn how existing database tools, such as Microsoft Access, can be used in biomedical informatics using data from clinical trials as an example. Topics covered will include relational databases, data modeling, and integration of biological data. Also covered will be introductions to various biomedical assays (e.g. flow cytometry, enzyme-linked immunosorbent assays) and the types of data they produce. Students majoring in any of the natural sciences, computing and information science, or mathematics are welcome to take the course. Prerequisites: BL 150-154 (for Biology and Bioinformatics majors) or NSCI 230-231 (for all others). Offered every other Fall semester (Fall 2014). Three credits.</p>
BIN-333	SPECIAL STUDY	<p>The student will pursue a faculty directed course of study. Variable credit. May be repeated.</p>

COURSE	TITLE	COURSE DESCRIPTION
BIN-357	BIOINFORMATICS JUNIOR SEMINAR	The capstone senior project is initiated in this course during the spring semester of the junior year. Under the supervision of a faculty member, the student will select a project, research the literature, and develop a formal plan for undertaking the project. The student will produce a written project proposal and give an oral presentation at the end of the semester. Spring semester. One credit.
BIN-358	BIOINFORMATICS SENIOR RESEARCH	Students conduct the body of their capstone senior research project in this course, typically during the fall of the senior year. Projects may be individual or a team project, and students may have co-advisors from different departments. Fall semester. Prerequisite: BIN 357. Two credits.
BIN-359	BIOINFORMATICS SENIOR SEMINAR	The capstone senior project initiated in BIN 358 is completed in this course. The student will give written and oral presentations on the project at the end of the semester. Two credits. Spring semester. Prerequisite: BIN 358.
BIN-550	BIOINFORMATICS INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work, through internships, fieldwork, and cooperative programs. Students may or may not be paid depending on the site. May be repeated. Variable Credit.
ES-00X	ENVIRON. SCI. EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
ES-150	EARTH SYSTEMS SCIENCE	This course will explore the interconnections between the components of the Earth - the hydrosphere, the atmosphere, the lithosphere, and the biosphere. In doing this we will examine the systems that provide balance and stability to the Earth while at the same time explain processes of Earth's evolution. We will accomplish this through an interdisciplinary approach that combines resources from geology, chemistry, biology, oceanography, and meteorology. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
ES-152	EARTH SYSTEMS SCIENCE LABORATORY	This laboratory course is designed to illustrate and discover principles in Earth Systems Science. This will include computer simulations, physical models, and scientific investigations. Must be taken simultaneously with, or after successful completion of ES 150. One credit.
ES-220	INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS	This course will focus on examining environmental data using a computer based geographic information system (GIS). Students will learn to manipulate tabular data, query GIS databases, and present data in charts and maps. Students will utilize existing geographic data as well as develop new data sets. Offered oddnumbered spring semesters. Three credits.
ES-230	ENERGY & THE ENVIRONMENT	We will explore the relationship between energy resources and the environment. First we will examine thermodynamics and efficiency of energy resources. Then we will examine the array of different energy resources including both fossil fuels and renewable sources. Topics of discussion will include hydraulic fracking, abandoned mine drainage, wildlife mortality, sustainability. This will be an integrated lecture laboratory to allow time for field trips. Prerequisite: CH 102. Offered even-numbered spring semesters. Four credits.
ES-300	RESEARCH SEMINAR I	This course will introduce the student to the research experience and will include an orientation to the library and use of reference materials. Students will be assigned articles to read and discuss. An introduction to writing and presenting a research proposal will be included. Students will be introduced to the procedure for maintaining a laboratory research notebook. Outside speakers may present seminars on selected topics. Prerequisite: Junior standing. One credit.
ES-301	RESEARCH LABORATORY	Independent study or investigation involving intensive work with faculty guidance in the laboratory and library. This course includes an assessment of cumulative laboratory skills. Prerequisite: ES 300. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
ES-302	RESEARCH SEMINAR II	Presentation of research work completed during the previous semester; the oral presentation is made after the thesis report has been written. Outside speakers may present seminars on selected topics. Prerequisite: ES 301. One credit.
ES-350	INDEPENDENT STUDY -- ENVIRONMENTAL SCIENCE	Studies to be chosen and developed by the student with the guidance of the professor directing the study. May be repeated. Variable credit.
ES-550	ENVIRONMENTAL SCIENCE INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work, through internships, field work and cooperative programs. Students may or may not be paid depending on the site. May be repeated. Variable credit.
INTS-101	INTRO TO INTEGRATED SCIENCE	This course will begin the academic program for Integrated Science majors. Students will participate in discussions, case studies, and collaborative projects to explore the integration of the science disciplines to tackle local and global problems. In additions students will examine career options and develop an academic plan. Finally, students will begin developing a portfolio that showcases their own integration of science and technology. Offered Fall semesters. One credit.
INTS-201	MEDICAL TERMINOLOGY	A hybrid course that introduces students to a variety of medical terms. Students will complete on-line assignments and tests. Prerequisite BL 152. Offered Fall semesters. One credit.
INTS-220	HUMAN ANATOMY	This course emphasizes the anatomy of the human body and clinical applications. Students will examine anatomical terminology, gross structures, body movements, and functional understanding of normal structures. Prerequisite BL 150-153. Offered Spring Semesters. Three credits.
INTS-221	HUMAN ANATOMY LAB	Students will perform laboratory experiments to better understand the human anatomy. Body systems to be studied include the muscular, digestive, urogenital, reproductive, circulatory, and nervous systems. Co-requisite INTS 220. One credit.

COURSE	TITLE	COURSE DESCRIPTION
INTS-300	INTEGRATED SCIENCE SENIOR SEM	The capstone course for all Integrated Science majors. Students in this course will write a Cumulative Paper that includes a literature review and analysis of a topic that emphasizes the integration of science disciplines. In addition, students will examine primary literature and case studies in collaborative groups. Finally, students will complete their personal portfolios that highlight their accomplishments and ability to understand and integrate scientific concepts. Prerequisite: At least 12 credits in concentration courses and INSC 550. Offered Spring semesters. Three credits.
INTS-550	INTEGRATED SCIENCE INTERNSHIP	Students participate in a professional work experience in the community related to their concentration and career goals. Students must complete a weekly log of activities and observations as well as a short response paper that explores the integration of at least two disciplines. Offered both semesters. Can be repeated for up to 3 credits.
CHI-101	ELEMENTARY CHINESE I	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for CHI 101. Satisfactory completion of CHI 101 is a prerequisite for CHI 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to Chinese culture. Pinyin (the most-widely used Chinese phonetic system) will be taught as a tool to learn the spoken language. Students will also learn Chinese characters in order to be able to communicate effectively in real Chinese situations. Approximately 200 words and expressions in both Pinyin and character forms will be taught. CHI 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. CHI101 offered fall semester; CHI 102 offered spring semester. Four credits each semester.

COURSE	TITLE	COURSE DESCRIPTION
CHI-102	ELEMENTARY CHINESE II	<p>For beginners in the language. The two courses form a sequence, and are normally completed as a unit. Satisfactory completion of CHI 101 is a prerequisite for CHI 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to Chinese culture. Pinyin (the most-widely used Chinese phonetic system) will be taught as a tool to learn the spoken language. Students will also learn Chinese characters in order to be able to communicate effectively in real Chinese situations. Approximately 200 words and expressions in both Pinyin and character forms will be taught. CHI 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. CHI101 offered fall semester; CHI 102 offered spring semester. Four credits each semester.</p>
CHI-203	INTERMEDIATE CHINESE I	<p>This course is designed for students with prior experience on listening, speaking, reading and writing Chinese at the elementary level. While students will be trained in all four skills, more emphasis will be given to reading and writing Chinese characters, expanding vocabulary, understanding Chinese culture. To facilitate the study of the language, different aspects of Chinese culture and society will be introduced through group activities, multimedia programs, and research project throughout the course. Offered fall semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
CHI-204	INTERMEDIATE CHINESE II	This course offers Chinese for daily communication through intensive study and practice in written and spoken Chinese. Students will carry on conversations and participate in classroom discussions in Mandarin Chinese on various topics associated with daily life and learn to write short passages in Chinese characters. This course also explores definitions of culture and analyzes the dynamic role of language in culture and culture in language, with an aim to foster crosscultural awareness and selfrealization while developing proficiency in Chinese. Offered spring semester. Three credits.
CHI-305	ADVANCED CHINESE CONVERSATION I	This course aims to improve the ability to speak and understand Chinese, emphasizing correct pronunciation and intonation. Active participation from the students is required. Students will have the opportunity to converse on a variety of topics. Prerequisite: CHI 204. Three credits.
CHI-306	READING CHINESE	This course provides an introduction to reading Chinese. Reading materials include newspaper articles, poetry and short stories. Students are required to complete written assignments and discuss the readings. Cultural awareness, reading, writing and speaking skills will be enhanced. Three credits.
CHI-307	ADVANCED CHINESE CONVERSATION II	This course continues to develop students' conversational abilities through daily use of the target language. Students will engage in real-life situational role plays and engage in discussions of and make formal oral presentations of cultural and literary readings. This course promotes cultural awareness and communicative proficiency. Three credits.
CHI-310	CHINESE LIT. IN TRANSLATION	This course introduces students to the classical literature and culture of the Tang, Song, Yuan, Ming and Qing Dynasties. Readings will include poetry, prose, dramas and novels. All readings, papers and class discussions are in English. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
CHI-311	SELECTED READINGS IN CHINESE	This course explores the major literary works of modern Chinese literature and the significant historical events during this period. Students will gain insights to Chinese culture through a variety of readings. The short story is emphasized along with selected poems and plays of the twentieth century. All readings, papers and class discussions are in English. Three credits.
CHI-320	TOPICS IN CHINESE LANGUAGE, CIVILIZATION OR LITERATURE	The contents of this course will vary from an emphasis on difficult aspects of Chinese language and conversation practice, to reading a variety of genres which include essays, poems, short stories and plays. Historical and political developments will be discussed. Students will enhance their understanding and appreciation of cultural beliefs, attitudes and practices. Three credits.
CHI-350	INDEPENDENT STUDY -- CHINESE	May be repeated. Variable credit.
FR-00X	FRENCH EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
FR-101	ELEMENTARY FRENCH I	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. Satisfactory completion of FR 101 is a prerequisite for FR 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of French-speaking peoples. FR 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. FR101 offered fall semester; FR 102 offered spring semester. Four credits each semester.

COURSE	TITLE	COURSE DESCRIPTION
FR-102	ELEMENTARY FRENCH II	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. Satisfactory completion of FR 101 is a prerequisite for FR 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of French-speaking peoples. FR 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. FR101 offered fall semester; FR 102 offered spring semester. Four credits each semester.
FR-203	INTERMEDIATE FRENCH I	Systematic grammar review and vocabulary building, with stress on nouns, adjectives, pronouns, and on the common tenses of regular and irregular verbs. Introduction to reading techniques suitable to college level study. Prerequisite: appropriate score on the College's language placement examination, or six (6) to eight (8) credits of college elementary French. Offered fall semester. Three credits.
FR-204	INTERMEDIATE FRENCH II	Understanding and use of the literary tenses, emphasis on the subjunctive, complex grammatical structures and idiomatic usages. Reading, compositions, and oral exercises. Both courses build an awareness of French-speaking cultures. Prerequisite: satisfactory completion of FR 203, or appropriate score on the College's language placement examination. Offered spring semester. Three credits.
FR-305	CONVERSATIONAL FRENCH	Development of speaking and listening skills beyond intermediate level. Fosters the ability to participate in daily life situations, social interchange, and discussion of topics read in newspapers or magazines and heard from audio sources. Phonetic, grammatical and cultural components. Three credits.
FR-310	FRENCH FOR BUSINESS	Development of oral and written skills. This course presents the essentials of modern commercial French through the medium of situations commonly found in the business world. Practical themes include currency exchange, travel, job interviews, telephone etiquette and cultural expectations. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
FR-315	ADVANCED FRENCH GRAMMAR AND COMPOSITION	This course provides students with a solid foundation in French syntax. It is a writing-intensive course directed towards improvement of stylistic skills. Thorough review of tenses, complex grammatical structures and idiomatic expressions. Writing assignments progress in difficulty and will include journals, compositions, and critical essays. Three credits.
FR-316	READING FRENCH	This course provides students with an introduction to reading a variety of French texts. Students have the opportunity to develop their reading, speaking and writing skills through several assignments that progress in difficulty. Three credits.
FR-320	DEVELOPING ORAL PROFICIENCY AND PHONETICS IN FRENCH	This course is designed to help students develop their oral proficiency, pronunciation and intonation in French. Course activities focus on a variety of discourse strategies, and encompass real-life linguistic situations and tasks. Pronunciation skills will be enhanced through the study of phonetics. Oral proficiency will be developed through role-play, presentation, debate, and collaborative language use in a variety of content areas. Three credits.
FR-321	SURVEY EARLY FRENCH LITERATURE I	Survey of literary movements from the Middle Ages through the 17th century, with selections from the major writers. Grammar review, oral presentations and compositions in French. Three credits.
FR-322	SURVEY OF FRENCH LITERATURE II	Survey of literary movements from the 18th century to the present, with selections from the major writers. Grammar review, oral presentations and compositions in French. Three credits.
FR-330	READINGS IN 19TH CENTURY AUTHORS	Selected readings from Chateaubriand, Balzac, Hugo, Baudelaire, Flaubert, Stendhal, Zola and others will be covered. Emphasis will be placed on turbulent political and social movements of the century and their reflection in literature of this period. Three credits.
FR-332	READINGS IN 20TH CENTURY AUTHORS	Study of selected works by modern French authors with attention to social and historical settings and content. Readings from Camus, Colette, Gide, Green, Fournier, Mauriac, Proust, and others. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
FR-343	CONTEMPORARY FRANCE	A study of contemporary France, presenting an overview of the social and political issues. Students will expand their reading, writing and conversational skills through course readings and assignments. Three credits.
FR-350 FR-444	INDEPENDENT STUDY - FRENCH FRENCH CULTURE AND CIVILIZATION	May be repeated. Variable credit. A survey of French history from the 16th century to the present. The course will look at political and social movements, reform and revolution as well as the influence of religion, culture, science and literature. Three credits.
FR-445	FRANCE THROUGH THE CENTURIES	French politics, history, economics, and aspects of daily life will be discussed through the use of selected readings and authentic documents. Students will further develop their reading, writing, and speaking skills through the study of French culture. Three credits.
FR-550	FRENCH INTERNSHIP	Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency/education setting. Students must receive departmental approval to participate. May be repeated. Variable credit.
GE-101	ELEMENTARY GERMAN I	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for GE 101. Satisfactory completion of GE 101 is a prerequisite for GE 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of German speaking peoples. GE 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor's supervision, along with individual lab practice. GE101 offered fall semester; GE 102 offered spring semester. Four credits each semester.

COURSE	TITLE	COURSE DESCRIPTION
GE-102	ELEMENTARY GERMAN II	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for GE 101. Satisfactory completion of GE 101 is a prerequisite for GE 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of German speaking peoples. GE 101, 102 do not fulfill the graduation requirement. Each semester comprises three hours classroom work and one hour practice in the language lab under instructor'+G610s supervision, along with individual lab practice. GE101 offered fall semester; GE 102 offered spring semester. Four credits each semester.
GE-203	INTERMEDIATE GERMAN I	Thorough grammar review, development of speaking, listening, reading and writing, and enhancement of cultural understanding. Prerequisite: appropriate score on the College's language placement examination, or six (6) to eight (8) credits of college elementary German. Offered fall semester. Three credits.
GE-203F	INTERMEDIATE GERMAN I	FIRST YEAR SEMINAR. Thorough grammar review, development of speaking, listening, reading and writing, and enhancement of cultural understanding. Prerequisite: appropriate score on the College language placement examination, or six (6) to eight (8) credits of college elementary German. Four credits.
GE-204	INTERMEDIATE GERMAN II	Emphasis on development of reading and discussion skills, with material dealing with German culture. Written exercises, translation and discussion. Prerequisite: satisfactory completion of GE 203, or appropriate score on the College's language placement examination. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
GE-305	CONVERSATIONAL GERMAN	This course aims at improving the ability to speak and understand German, with the main emphasis on the pronunciation and intonation of German, and the expansion of active and passive vocabulary. Class sessions will revolve around conversations on a variety of topics based on personal interest, supplemented by material from the web, videos, films, short stories and magazine articles, as well as vocabulary and grammar quizzes, dictations, and oral presentations. Each student will give a midterm and final presentation on a German-related topic. Three credits.
GE-307	GERMAN FOR READING KNOWLEDGE	This course is designed for students required to prove a reading knowledge of German for graduate school. Focus on the pronunciation and intonation of German will be limited to the reading environment, with the main emphasis on the acquisition of German grammar, syntax, and vocabulary. Three credits.
GE-308	GERMAN PHONETICS	This course is designed to help students develop an as near-native as possible ability to produce individual German sounds, achieve correct word intonation, and develop a sense for various sentence rhythms, in order better comprehend and interact with native speakers. Three credits.
GE-309	HISTORY OF THE GERMAN LANGUAGE	This course will present an overview of the history of the German language, from the Indoeuropean origins to Old High German, Middle High German, Early New High German, and High German. The focus will be on linguistic, geographical, and historical developments, conveyed through close readings of unedited texts representative for each period. An excellent foundation course for all the other period courses. Three credits.
GE-315	ADVANCED GERMAN GRAMMAR & COMPOSITION	This course provides students with a solid foundation in German syntax. It is a writing-intensive course directed towards improvement of stylistic skills. Thorough review of tenses, complex grammatical structures and idiomatic expressions. Writing assignments progress in difficulty and will include journals, compositions, and critical essays. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
GE-321	GERMAN LITERATURE OF THE MIDDLE AGES	This course will present an overview from the earliest literary documents of the late 8th Century (Merseburger Zaubersprüche, Hildebrandslied) through the Carolingian Renaissance (Einhard, Notker), to the heroic and courtly epics of the early 13th Century (Nibelungen, Parzival) and "Minnesang" (Walther, Codex Manesse), while glossing linguistic as well as historical developments. Three credits.
GE-322	GERMAN BAROQUE LITERATURE & CIVILIZATION	This course will focus on literary developments of the German Baroque (Language Societies, Opitz, Gryphius, Grimmelshausen), its music (Froberger, Reincken, Erlebach) and art -G624 in particular the Dutch School, against the backdrop of conceptual and historical developments, such as the art of emblems, and the Thirty Years' War. Three credits.
GE-332	EARLY 20TH CENTURY GERMAN LITERATURE	An introduction to German and Austrian literature and art from approximately 1900 - 1950. Texts under consideration will include unedited prose and poetry by representative authors such as Hofmannsthal, Heym, Benn, Joseph Roth, in addition to memoirs, interviews, letters and films. Focus on stylistical, contextual and historical analyses. Three credits.
GE-333	GERMAN CULTURE AND CIVILIZATION OF THE 18TH CENTURY	This course will focus on the (re)discovery of classicism in German thought and literature (Goethe, Lessing, Schiller), the new standardisation of the German language, the "Sturm und Drang" of literature (Klopstock, Herder, Goethe, Claudius), music (Haydn, C. P. E. Bach, Müthel, Mozart) and political adventure (Trenck), against the backdrop of significant historical developments (Friedrich's Prussia, French Revolution). Three credits.
GE-340	CULT. & CIV./ROMANTIC PERIOD	This course will focus on literary developments during the Romantic period (Brentano, Novalis, Eichendorff, Holderlin, Heine), the renewed focus on German philology and mythology (Jacob Grimm, Schlegel), and also gloss the music and art of the time, against the backdrop of historical developments. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
GE-342	GERMAN PROSE OF THE LATER 19TH CENTURY	An introduction to German and Swiss novels and novellas by, among others, Fontane, Storm, Keller, Mörike. Texts will be unedited; with focus on stylistical, comparative and historical analyses. Three credits.
GE-343	GERMAN SPECIAL TOPICS	The contents of this course will vary, as it will examine in greater detail one particular author (for example, Goethe), or one particular period (for example, Sturm und Drang), or one particular work (for example, Fontane's Effi Briest), or one particular topic (for example, the University system, or the spelling reform). Discussion of selected readings; written exams, oral presentations. Three credits.
GE-350	INDEPENDENT STUDY - GERMAN	May be repeated. Variable credit.
GE-550	GERMAN INTERNSHIUP	Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency/educational setting. Students must receive departmental approval to participate. May be repeated. Variable credit.
IT-101	ELEMENTARY ITALIAN I	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for IT 101. Satisfactory completion of IT 101 is a prerequisite for IT 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of Italian-speaking peoples. IT 101, 102 do not fulfill the graduation requirement. Each semester comprises of four hours classroom work under the instructor's supervision. IT 101 offered fall semester; IT 102 offered spring semester. Four credits each semester.

COURSE	TITLE	COURSE DESCRIPTION
IT-102	ELEMENTARY ITALIAN II	For beginners in the language. The two courses form a sequence, and are normally completed as a unit. No prerequisite for IT 101. Satisfactory completion of IT 101 is a prerequisite for IT 102. The entire two-semester course aims at acquisition of the usual basic language skills of listening, speaking, reading and writing. Presentation of basic grammar and an introduction to the culture of Italian-speaking peoples. IT 101, 102 do not fulfill the graduation requirement. Each semester comprises of four hours classroom work under the instructor's supervision. IT 101 offered fall semester; IT 102 offered spring semester. Four credits each semester.
IT-203	INTERMEDIATE ITALIAN I	Systematic grammar review and vocabulary building, emphasizing the major components of grammatical forms and syntax, always within the context of the spoken and written forms of the language. Prerequisite for IT 203: appropriate score on the College's language placement examination, or six (6) to eight (8) credits of college elementary Italian. Offered fall semester. Three credits.
IT-204	INTERMEDIATE ITALIAN II	Understanding and use of all the tenses with emphasis on the subjunctive mood in both the spoken and written language. Readings, written and oral exercises, discussion. Prerequisite for 204: satisfactory completion of IT 203 or appropriate score on the Coll+G631ege's language placement examination. Offered spring semester. Three credits.
IT-305	DEVELOPING ORAL PROFICIENCY IN ITALIAN	This course is designed to help students develop their oral proficiency. The activities will focus on a variety of discourse strategies, will encompass real-life linguistic situations and tasks, and will be developed through role play, presentation, debate, and collaborative language use in a variety of content areas. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
IT-315	STYLISTICS: TECHNIQUES OF COMPOSITION AND INTERPRETATION	This course is designed to improve the student's ability to write Italian correctly and with a certain elegance of style. Selections from modern authors will be analyzed for their effectiveness and manner of expression. Sensitivity to appropriate register of language will be stressed, as well as distinctions between the written and spoken language. Written assignments will include linguistic exercises, short translations, from English to Italian, summaries, compositions, comments, and interpretations of a variety of texts. Three credits.
IT-321	INTRODUCTION TO ITALIAN LITERATURE	An introduction to writing and reading in Italian that will prepare the student for a more systematic introduction to literary analysis in later courses. Basic inquisitive reading skills and clarity of written expression are stressed in this course. Students will study texts so that they will be able to reconstruct the process of literary creation as well as be introduced to some of the general vocabulary of poetics, genre, and literary criticism. Some of the authors to be studied are: Ungaretti, Ginzburg, Petracca, Eco, Primo Levi, Deledda, et al. Three credits.
IT-330	L'ITALIA AL CINEMA	Film is a legitimate means for discovering the language and culture of any country, and Italy is no exception. This course will look at some of the classic as well as contemporary films of Italy in order to improve oral / aural skills as well as expand the student's understanding of certain cultural or linguistic aspects of Italian through cinema. Three credits.
IT-343	AN INTRODUCTION TO CONTEMPORARY ITALY	This course will afford the opportunity to expand conversation, writing, and reading skills while consolidating knowledge of the more difficult points of grammar. The contextual focus of the course is contemporary Italian culture, including contemporary history and politics, the economy, the division between North and South, immigration from developing countries, environmental issues, and popular music, among others. Italian films, music, and articles from newspapers, newsmagazines, and short stories, will enhance and complete the learning experience. Three credits.
IT-350	INDEPENDENT STUDY -- ITALIAN	May be repeated. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
LT-101	ELEMENTARY LATIN	For beginners in the language. The two courses form a sequence and are normally completed as a unit. No prerequisite for LT 101. Satisfactory completion of LT 101 is a prerequisite for LT 102. The entire two-semester course aims at the acquisition of the basic language skills of a highly inflected language such as Latin. Emphasis will thus be placed on morphology, syntax, vocabulary culture, and the unique sentence structure that is so characteristic and inherent in Latin. LT 101, 102 do not fulfill the graduation requirement. Each semester comprises of four hours classroom work under the instructor's supervision. LT 101 offered fall semester; LT 102 offered spring semester. Four credits each semester.
LT-102	ELEMENTARY LATIN II	For beginners in the language. The two courses form a sequence and are normally completed as a unit. Satisfactory completion of LT 101 is a prerequisite for LT 102. The entire two-semester course aims at the acquisition of the basic language skills of a highly inflected language such as Latin. Emphasis will thus be placed on morphology, syntax, vocabulary culture, and the unique sentence structure that is so characteristic and inherent in Latin. LT 101, 102 do not fulfill the graduation requirement. Each semester comprises of four hours classroom work under the instructor's supervision. LT 101 offered fall semester; LT 102 offered spring semester. Four credits each semester.
LT-203	INTERMEDIATE LATIN I	Systematic review of basic morphology, syntax, and vocabulary is presented. The indicative and imperative moods are presented in their entirety. There are also presentations on cultural elements and vocabulary expansion. Reading passages reflect Græco- Roman culture and mythology as well as passages from Christian literature. Prerequisite for LT 203: appropriate score on the College's G641s language placement examination. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
LT-204	INTERMEDIATE LATIN II	Building on material covered in LT 203, more complex grammatical structures will be covered with special emphasis on the use of participles, e.g., ablative absolutes, periphrastics, etc. Reading passages will reflect material covered and be taken from both classical and Christian literature, the latter through the medium of Gregorian chant. Prerequisite: satisfactory completion of LT 203. Exceptions may be made by the Modern Language Department and a qualifying exam may be required. Offered spring semester. Three credits.
LT-321	LATIN HYMNS OF THE ROMAN CHURCH	The Good News of the Incarnation began with a hymn when the angels sang Gloria in excelsis Deo. Hymns are at the center of Jewish and Christian worship. This course will look at some of the most famous biblical hymns of both testaments as well as those written by some of the greatest Latin poets of the Roman Church: Saint Ambrose, Prudentius, Pope Saint Gregory the Great, Venantius Fortunatus, et alii. These hymns will be studied at two levels: textual and musical. The basics of Gregorian chant will also be presented. Three credits.
LT-335	CICERO I	This course focuses on the four Catilinarian orations delivered in 63 B.C. before the Senate and the People of Rome during the turbulent final years of the Republic. Due consideration will be given to the historical, political, social environment as well as the literary style of this great Roman orator. Three credits.
LT-337	CICERO II	Students will read the Pro Archia poeta oratio in which Cicero gives a brilliant defense of the role of literature and the humanities in society. His perspective will be compared to those of Cardinal Newman and Alexander Solzhenitsyn. Three credits.
LT-340	ROMAN POETRY I	A study of style and theory in late Republican poetry. Selections to be read are taken from the major Republican and Augustan poets Catullus and Ovid and will investigate the role of intertextuality in the reading of Roman poetry. Three credits.
LT-350	INDEPENDENT STUDY -- LATIN	May be repeated. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
LT-443	AENEID I	Books I -G650 VI of the great Roman epic will be studied. Students will review dactylic hexameter and develop their metrical skills so as to be able to read aloud this masterpiece of Roman literature. Three credits.
SP-00X	SPANISH EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
SP-105	REVIEW SPANISH	Prerequisite: Appropriate score on the College's language placement examination or permission of instructor. A one-semester course which emphasizes vocabulary, grammar and cultural awareness. This course assumes little or no prior knowledge of Spanish. It is normally followed by the two-semester sequence of SP 203 and 204. SP 105 does not count for the fulfillment of the graduation requirement. Offered spring semester. Three credits.
SP-203	INTERMEDIATE SPANISH I	Systematic grammar review and vocabulary building, with stress on nouns, adjectives, pronouns, and on the common tenses of regular and irregular verbs. Introduction to reading techniques suitable to college level study. Prerequisites: Six (6) to eight (8) credits of college Elementary Spanish, SP 105 or appropriate score on the College's language placement examination. Offered fall semester. Three credits.
SP-203F	INTERMEDIATE SPANISH I	FIRST YEAR SEMINAR. Systematic grammar review and vocabulary building, with stress on nouns, adjectives, pronouns, and on the common tenses of regular and irregular verbs. Introduction to reading techniques suitable to college level study. Prerequisites: Six (6) to eight (8) credits of College Elementary Spanish, SP 105 or appropriate score on the College language placement examination. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
SP-204	INTERMEDIATE SPANISH II	Further understanding of Spanish syntax with emphasis on the subjunctive, complex grammatical structures and idiomatic usages. Reading, compositions, and oral exercises. Both courses build an awareness and appreciation of the variety of Spanish cultures. Prerequisite: satisfactory completion of SP 203 or appropriate score on the College's language placement examination. Offered spring semester. Three credits.
SP-310	SPANISH FOR BUSINESS	Development of oral and written skills. This course presents the essentials of modern commercial Spanish through the medium of situations commonly found in the business world. Practical themes include currency exchange, travel, job interviews, telephone etiquette and common types of written business correspondence. Emphasis on cross-cultural understanding and exploration of business practices in Hispanic countries and the United States. Three credits.
SP-315	ADVANCED SPANISH GRAMMAR AND COMPOSITION	This course provides students with a solid foundation in Spanish syntax. It is a writing-intensive course directed towards improvement of stylistic skills. Thorough review of tenses, complex grammatical structures and idiomatic expressions. Writing assignments progress in difficulty and will include journals, compositions, and critical essays. Three credits.
SP-317	INTRO TO SPAN. LITERARY ANALY	This class is an introduction to the literary analysis of the four major genres in Peninsular and Spanish American literature: narrative (prose), poetry, drama, and essay. Different texts will be discussed and analyzed in conjunction with their respective sociocultural contexts. Students will acquire the necessary terminology and tools for a formal literary analysis in Spanish. They will be able to recognize the major Peninsular and Spanish American writers and literary movements, discuss and analyze the different genres, and present their findings in written and oral form. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SP-320	DEVELOPING ORAL PROFICIENCY AND PHONETICS IN SPANISH	Development of listening, speaking and pronunciation skills through the study of phonetics. Familiarity with dialectal variations. Advanced practice in oral expression. Topics may include current events, films and daily situations. Three credits.
SP-321	PANAROMA OF PENINSULAR LIT	Survey of literary movements in Spain from the Middle Ages through the 19th century, with reading and discussion of selections from the major writers. Grammar review, oral presentations and composition in Spanish. Three credits.
SP-322	PANORAMA OF LATIN-AMERICAN LITERATURE	Survey of Spanish American literary movements from the Colonial period through the 19th century, with reading and discussion of selections from the major writers. Grammar review, oral presentations and compositions in Spanish. Three credits.
SP-332	PENINSULAR LITERATURE OF XIX CENTURY	This course provides students with an understanding of the Spanish literary tradition of 19th century Spain. Students will study major literary movements and authors of the period. This course can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.
SP-333	PENINSULAR LITERATURE OF THE XX CENTURY	This is a literature class intended for the student to understand the Spanish literary tradition of the XX century. This class can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.
SP-337	1=SPANISH American Literature of the XX CENTURY	This is a literature class intended for the student to understand the Spanish American literary tradition of the XIX century. This class can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SP-338	SPAN. AMER. LIT. OF XX CENTUR	This is a literature class intended for the student to understand the Spanish American literary tradition of the XX century. This class can be a survey including all major literary movements and authors; or it may be offered as a topics class, where the focus is on the discussion of a specific issue such as social class, gender, economics, etc., or devoted to one specific literary genre. Three credits.
SP-350	INDEPENDENT STUDY - SPANISH	May be repeated. Variable credit.
SP-410	SPANISH GOLDEN AGE DRAMA: LA COMEDIA	This class focuses on the reading and analysis of the canonical texts of Golden Age Drama. We will examine the most representative texts of seventeenth-century Spanish Comedia along with their historical, cultural, religious, and philosophical contexts. Students will acquire a thorough understanding of this unique genre and its influence on the literature and tradition of many different countries. Three credits.
SP-415	COLONIAL SPANISH AMERICAN LITERATURE	This course explores some of the most important and provocative texts written in the Spanish American Colonial period. The first part of the course focuses on texts that offer different historical accounts of the "Conquista" of the so-called "New World." The second part presents texts from the perspective of native and mestizo writers, as well as texts from significant "criollo" authors. Students will acquire a more complete understanding and appreciation of this essential period in history, its cultural and religious repercussions, and its connection to the identity of Latin American people. Three credits.
SP-420	SPAN. GOLDEN AGE HYBRID MASTERPIECES	This class studies Spanish Renaissance and Baroque masterpieces, and focuses on issues related to hybrid genres in the different texts. Among the books students will read are the wellknown "Tragicomedia", La Celestina, and the founder of the Spanish Picaresque Novel, El Lazarillo de Tormes. All the texts are studied in relation to their historical, cultural, religious, and philosophical contexts. Students will get an appreciation for the texts responsible for some of the most transcendent archetypes in Hispanic literature and culture. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SP-425	SPANISH AMERICAN SHORT STORY OF THE XX CENTURY	In this class we will study some of the major Spanish American short stories in the XX century. The short stories were written by several well-respected writers in this genre from different nationalities. We will discuss issues related to this key genre in Spanish American Literature. Student will get an overview of the canonical texts and figures in this genre and will be able to appreciate their significant innovations. Three credits.
SP-430	CERVANTES' NOVELAS EJEMPLARES	In this course we will study a very significant part of Cervantes prose, his Novelas Ejemplares. Cervantes is well-known for his Masterpiece Don Quixote, but his importance in the development of this genre is considerable since he is the first one to write such innovative literature in Spanish. Students will analyze the different texts and its diverse characters, along with their historical, cultural, religious, and philosophical contexts. They will learn to appreciate this genre and its importance in the development of the short story. Three credits.
SP-444	PENINSULAR CULTURE AND CIVILIZATION	This course is a survey of the major historic events that shaped Spain. It includes discussions of different historic periods and cultural influences and movements. Three credits.
SP-445	SPANISH AMERICAN CULTURE & CIVILIZATION	This course is a survey of the major historic events that shaped Spanish America. It includes discussions of different historic periods and cultural influences and movements. Three credits.
SP-450	STUDY SPANISH IN MEXICO I	A foreign language and cultural experience open to beginners or students at any level. There are no prerequisites. Students choose a designed or flexible program of small-group study, at each one's level of proficiency and live with local families in Cuernavaca, Mexico. Saint Vincent offers equivalency credits for study at the UNIVAC Language Center. Programs are available at all times of the year. Course content varies according to choice. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
SP-451	STUDY SPANISH IN MEXICO II	A foreign language and cultural experience open to beginners or students at any level. There are no prerequisites. Students choose a designed or flexible program of small-group study, at each one's level of proficiency and live with local families in Cuernavaca, Mexico. Saint Vincent offers equivalency credits for study at the UNIVAC Language Center. Programs are available at all times of the year. Course content varies according to choice. Variable credit.
SP-550	SPANISH INTERNSHIP	Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/ agency/ educational setting. Students must receive departmental approval to participate. May be repeated. Variable credit.
LA-00X	LIBERAL ARTS EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
LA-200	METHODS & TECHNIQUES OF RESEARCH FOR LIBERAL ARTS	This course will introduce the student to techniques of research, investigation and writing, evaluation of sources, library use, and bibliography. The course will also focus on the Liberal Arts project: choice of subject, methodology, outline, and bibliography. Meetings with individual members of the Liberal Arts faculty will help the student define and clarify the project. Students will present their plan of studies for the major to the Liberal Arts faculty during a formal presentation. Fall semester. Three credits.
LA-250	SEMINAR: READINGS FOR LIBERAL ARTS MAJORS	The seminar will focus on the development of the topic and form of the project and will culminate individual student presentations to the Liberal Arts Faculty who will approve their project proposals. Further, this reading seminar will focus on the academic disciplines represented by participants' +G681 minors and concentrations. Students will study and analyze representative reading selections in the framework of class presentations, class discussions and written reports. Spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
LA-325	SENIOR SEMINAR FOR LIBERAL ARTS MAJORS MAJORS	This course is designed for the student who is in the final stages of the Liberal Arts Project. The course will utilize a workshop format and class meetings will focus on the stylistic and technical aspects of the senior project. Fall semester. Three credits.
LA-350	INDEPENDENT STUDY -- LIBERAL ARTS	May be repeated. Variable credit.
LA-550	LIBERAL ARTS INTERNSHIP	Professional work experience in the community which complements and strengthens academic in-class learning. Academic credit is variable depending on the nature and duration of the experience. Students may or may not be compensated depending on the company/agency. Students must receive departmental approval to participate. May be repeated. Variable credit.
MA-00X	MATHEMATICS EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
MA-102	MATHEMATICS FOR TEACHERS	A course designed specifically for prospective teachers in K-12 schools. The goal is to help students better comprehend and apply mathematical concepts and principles in the content strands of geometry, number systems, data analysis and statistics, and problem solving. Students will be introduced to a variety of materials, activities with physical manipulatives and computer models, and various types of software as tools for teaching and learning. The course focus will include emphasis from the national standards and Pennsylvania standards for mathematics as well as state standards for other certification areas that include application of mathematics in another subject area. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MA-103	GEOMETRIC & MEASUREMENT THEORY	This course will provide pre-service teachers current trends, techniques, technologies, and research about teaching geometry. The course is designed to increase content knowledge and the knowledge of instructional strategies for teaching geometry. The van Hiele model for the development of geometric thought will be studied. Topics will include measurement, two- and three-dimensional figures, spatial relationships, constructions, tessellations, similarity and congruence, proportion, properties of figures. Students will participate in a variety of problem solving activities including paper folding and the use of Geometer's Sketchpad.
MA-104	ELEMENTARY FUNCTIONS	This is a one-semester course whose main ideas are emphasized in the presentation of the polynomial, rational, trigonometric, exponential, and logarithmic functions. The core of the course is derived from materials best described as a compendium of college algebra, trigonometry, and analytic geometry, which would reinforce those skills essential to calculus. Three credits.
MA-106	FUND. OF PROBLEM SOLVING	The course analyzes various aspects of mathematics, with an emphasis on problem solving skills. Students will develop problem solving skills while studying various topics like logic and critical thinking, number theory, percentages, interests, loans, linear models, and exponential models. Other possible topics are sets, geometry, probability, statistics, and graphs. Three credits.
MA-109	CALCULUS I	The elementary functions, limits, the derivative and its applications, the definite integral, techniques of integration. Applications are presented from the areas of biology and the social sciences. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
MA-109F	CALCULUS I	FIRST YEAR SEMINAR. The elementary functions, limits, the derivative and its applications, the definite integral, techniques of integration. Applications are presented from the areas of biology and the social sciences. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Five credits.
MA-110	CALCULUS II	Probability, vectors, partial differentiation, multiple integration, sequences and series. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Offered spring semester. Prerequisite: MA 109. Four credits.
MA-111	CALCULUS I	The real number system. Limits and continuity. The concepts of differentiation and integration. Differentiation of algebraic and trigonometric functions and applications. Newton's method. The Mean Value Theorem. The definite integral and the Fundamental Theorem of Calculus. Applications of the definite integral. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Offered fall semester. Four credits.
MA-111F	CALCULUS I	FIRST YEAR SEMINAR. The real number system. Limits and continuity. The concepts of differentiation and integration. Differentiation of algebraic and trigonometric functions and applications. Newton's method. The Mean Value Theorem. The definite integral and the Fundamental Theorem of Calculus. Applications of the definite integral. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Five credits.

COURSE	TITLE	COURSE DESCRIPTION
MA-112	CALCULUS II	The real number system. Limits and continuity. The concepts of differentiation and integration. Differentiation of algebraic and trigonometric functions and applications. Newton's method. The Mean Value Theorem. The definite integral and the Fundamental Theorem of Calculus. Applications of the definite integral. Graphing calculators and the computer algebra system of Mathematica are used to help study various concepts of calculus. Offered spring semester. Four credits.
MA-113	CALCULUS III	Three-dimensional vectors and surfaces. Sequences and series. Multi-variable functions and partial differentiation. Double and triple integrals and applications. Offered fall semester. Prerequisite: MA 112. Four credits
MA-114	ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS	First order equations and applications, classical and numerical methods; second order linear equations and applications; solution in series; Bessel's and Legendre's equations; Laplace transform solutions; higher order equations; introduction to partial differential equations, separation of variables and Fourier series. Offered spring semester. Prerequisite: MA 113. Four credits.
MA-115	LINEAR ALGEBRA	Matrices and systems of linear equations. Vector spaces and linear transformations. Determinants. Inner product spaces, eigenvalues and eigenvectors. Offered spring semester. Prerequisite: MA 112. Three credits.
MA-116	ACTUARIAL SCIENCE	This course focuses on the basic mathematical principles underlying the mathematics of finance. Various concepts in interest theory such as discount and accumulation functions, certain annuities, yield rates, bonds, mortgages and other loans are presented. Fundamentals of other financial mathematics such as duration, immunization, and liability/asset matching are also covered in the course. Not offered on a regular basis. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MA-117	METHODS OF PROOF	An introduction to the more rigorous and theoretical aspects of mathematics. The course will focus on the construction and analyzing of mathematical proofs, including direct proof, proof by contrapositive, proof by contradiction, and mathematical induction. The basics of some mathematical logic, sets, number theory, algebra, and calculus will be covered as subject matter for the proofs. Prerequisite: MA 110 or MA 112. Not offered on a regular basis. Three credits.
MA-201	ABSTRACT ALGEBRA I	Integers, Euclidean algorithm, congruences, rings, ring homomorphisms, integral domains, fields, ideals, quotient rings, polynomial rings, basic properties of groups, cyclic groups. Prerequisite: MA 114. Offered fall semester of odd-numbered years. Four credits.
MA-202	ABSTRACT ALGEBRA II	Groups, cyclic groups, subgroups, normal subgroups, quotient groups, Lagrange's Theorem, isomorphism theorems, Cayley's Theorem, direct products, finite Abelian groups. Prerequisite: MA 201. Offered spring semester of even-numbered years. Four credits.
MA-203	COMPLEX VARIABLES	The complex number system the Cauchy-Riemann equations, contour integrals, the Cauchy integral theorem and formula, sequences, power series and Laurent series, residue theory and conformal mapping. Prerequisite: MA 113. Offered fall semester. Three credits.
MA-204	TOPOLOGY	Sets, functions, metric spaces, topological spaces, connectedness, compactness, separation axioms, approximation, fixed point theorems. Prerequisite: MA 114. Offered spring semester of even-numbered years. Three credits.
MA-206	REAL ANALYSIS I	A rigorous study of calculus, limits of sequences and functions, the Full Cover Theorem, absolute continuity, differentiation, properties of differentiable functions, the Riemann integral, Lebesgue's Theorem, the Riemann-Stieltjes integral, the Lebesgue integral, the Riemann-complete integral. Prerequisite: MA 114. Offered fall semester of even-numbered years. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
MA-207	REAL ANALYSIS II	Vector calculus functions of several variables, differentiability, transformations, and the Inversion Theorem, infinite series, series of functions, Fourier series. Prerequisite: MA 206. Offered spring semester of odd-numbered years. Four credits.
MA-208	PROBABILITY AND STATISTICS	Discrete probability including such topics as independence, conditional probability, Bernoulli trials, and Bayes Theorem, Calculus of probabilities including random variables, discrete and continuous distributions, expectation and variance. Prerequisite: MA 113. Offered fall semester. Three credits.
MA-210	EUCLIDEAN & NON-EUCLIDEAN GEOMETRIES	Elementary geometry from an advanced standpoint. Non-Euclidean geometries, with emphasis on hyperbolic geometry. The postulation method. Prerequisite or concurrent course: MA 112. Offered spring semester. Three credits.
MA-213	SEMINAR FOR ENGINEERS	A review of the mathematics courses taken by the engineering student. A discussion of Laplace Transformations and Fourier Series. Emphasis is on student presentation. This seminar is taken during both semesters of the junior year. MA 213A is taken for zero credits in the fall and MA 213 is taken for one credit in the spring. Prerequisite: MA 114. One credit.
MA-213A	SEMINAR FOR ENGINEERS	A review of the mathematics courses taken by the engineering student. A discussion of Laplace Transformations and Fourier Series. Emphasis is on student presentation. This seminar is taken during both semesters of the junior year. MA 213A is taken for zero credits in the fall and MA 213 is taken for one credit in the spring. Prerequisite: MA 114. Zero credits.
MA-221	ENGINEERING GRAPHICS & DESIGN	Introduction to Engineering Graphics: geometric constructions, multi view drawing, dimensioning, sections, pictorials, and auxiliary views. Computer aided design, generation of mechanical drawings, and design projects. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MA-223	MECHANICS: STATICS	Forces in a plane and in space. Equivalent system of forces. Equilibrium of rigid bodies. Centroids and centers of gravity. Moments of inertia. Analysis of structures. Friction. Vectors used extensively. Cross-listed as PH 223. Prerequisite: PH 111 and MA 112. Offered fall semester. Three credits.
MA-224	MECHANICS: DYNAMICS	Kinematics of particles. Kinetics of particles by: (a) force, mass and acceleration, (b) work and energy, (c) impulse and momentum. Kinematics of rigid bodies. Plane motion of rigid bodies by: (a) forces and accelerations, (b) energy and momentum methods. Mechanical vibrations. Vectors used extensively. Cross-listed as PH 224. Prerequisite: MA 223. Offered spring semester. Three credits.
MA-225	STRENGTH OF MATERIALS	Strength of Materials is an introductory materials science and engineering course. Students learn about the influence of the structure of materials and inherent defects in materials on ultimate properties and performance. The emphasis is on strength and failure of metals, ceramics, and polymers, but electrical and thermal properties are also considered. Case studies are used to illustrate many of the instructional modules. Prerequisites: CH 102, MA 111. Three credits.
MA-350	INDEPENDENT STUDY--MATHEMATICS	May be repeated. Variable credit.
MA-550	MATHEMATICS INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are P/F and are awarded according to the extent of the work experience. Students may or may not be paid depending on the site. The purpose of the program is to integrate academic studies and employment activities. May be repeated. Variable credit.
MU-00X	MUSIC EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.

COURSE	TITLE	COURSE DESCRIPTION
MU-090	RECITAL ATTENDANCE	<p>Because attending live musical performances are a key element of a music student's education, all music majors and minors are required to attend six performances each semester. Students have the opportunity to see, hear and meet internationally acclaimed artists through The Saint Vincent College Concert Series, and four of the six required concerts should be from the Concert Series. The other two concerts may be other performances on or off campus. These concerts should be solo recitals, chamber ensembles, choral concerts, operettas, operas, ballet with live music, or symphony performances. Jazz concerts are also acceptable. The level of proficiency of these concerts should be college level, semi-professional or professional. Many classical venues give discounts on student admissions, and all Department of Fine Arts sponsored concerts are free to Saint Vincent students. Required for all music majors and minors every semester. May be repeated. Offered both semesters. Zero credits.</p>
MU-101	MUSIC APPRECIATION	<p>A survey of the music of western culture which is frequently generically called classical, but in reality includes Medieval, Renaissance, Baroque, Classical, Romantic, Modern and Contemporary periods. The course is designed to teach students how to listen to music, and how to discuss music's aesthetic nature and purpose. Representative composers and works from the major periods of music will be placed in their historical context, studied and discussed. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered both semesters. Three credits.</p>
MU-101F	MUSIC APPRECIATION	<p>FIRST YEAR SEMINAR. A survey of the music of western culture which is frequently generically called classical, but in reality includes Medieval, Renaissance, Baroque, Classical, Romantic, Modern and Contemporary periods. The course is designed to teach students how to listen to music, and how to discuss music's aesthetic nature and purpose. Representative composers and works from the major periods of music will be placed in their historical context, studied and discussed. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Four credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
MU-101H	HONORS MUSIC APPRECIATION	HONORS COURSE. A survey of the music of western culture which is frequently generically called classical, but in reality includes Medieval, Renaissance, Baroque, Classical, Romantic, Modern and Contemporary periods. The course is designed to teach students how to listen to music, and how to discuss music's aesthetic nature and purpose. Representative composers and works from the major periods of music will be placed in their historical context, studied and discussed. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered both semesters. Three credits.
MU-104	MONASTICISM & THE ARTS	The course will begin with a discussion of beauty and the theology of sacramental aesthetics, taking into account the writings of such authors as St. Thomas Aquinas, St. John Damascene, and Pope Benedict XVI, and then view this through the lens of monastic contributions to art, music, iconography, painting, illumination, sculpture, and architecture up to the present time. Three credits.
MU-106	WORLD MUSIC	A survey of the music of the world and an introduction to ethnomusicology. Students explore the music of the world through performance analysis, case studies, and listening to live and recorded performances. The course also looks at the cultural aspects of a society and how they effect the music that the society creates. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered spring semester in even-numbered years. Three credits.
MU-108	MUSIC HISTORY AND LITERATURE: BAROQUE AND CLASSICAL PERIODS	This course is designed to help the student of music to discover the characteristics of Baroque and Classical styles; to discuss the forms, styles, and compositional techniques of the period; and to identify representative composers and their major works. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MU-109	MUSIC HISTORY AND LITERATURE: ROMANTIC AND CONTEMPORARY PERIODS	This course is designed to help the student of music to discover the characteristics of Romantic and Contemporary styles; to discuss the forms, styles, and compositional techniques of each period; and to identify representative composers and their major works. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered spring semester. Three credits.
MU-111	THE SPIRITUALITY OF MUSIC	This course is designed to survey Western music through the lens of the spirituality of the composers who composed the music and to discover the catalyst for their creation of particular pieces of music. Emphasis will be placed on the music of Jewish, Muslim, and Christian composers and how their spirituality influenced the creation of their compositional output. Full-fills the core Fine Arts requirement. Three credits.
MU-112	SURVEY OF MUSICAL THEATER AND OPERA	This course offers students the chance to explore the history of opera and musical theater. Aspects of historical performance practice and the study of specific operas and musicals will be covered. The American musical will be discussed in light of historical and cultural developments. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered spring semester in oddnumbered years. Three credits.
MU-115	FUNDAMENTALS OF MUSIC THEORY	This course consists of a thorough and unified presentation of music principles such as notation, intervals, scales, chords, rhythms and simple piano familiarization. Through interactive classroom and board work, the student will acquire a firm foundation for the study of harmony and all other music courses which follow. Although it is the first music theory course required for all music majors and minors, no prior musical training or knowledge is required so it is equally appropriate for the general student who wishes to gain a basic working knowledge of the fundamentals of music. No prerequisites. Fulfills the Core Curriculum Fine Arts requirement. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MU-125	INSTRUMENT LESSONS FOR NON-MAJORS/ NON/MINORS	This instruction is for non-music majors and non-music minors at any skill level. One-half hour (1 credit) or one-hour (2 credits) of individual weekly instruction in piano, organ, voice, guitar, violin, flute, trumpet, French horn, clarinet, saxophone, and trombone is available. Can fulfill the Core Curriculum fine arts requirement if a total of three credits of lessons on the same instrument are taken. Permission of the instructor and chair required. May be repeated. Offered both semesters. Fee. One or two credits.
MU-171	MARCHING BAND	The Saint Vincent Marching Band is an ensemble that performs for football games, parades, and band festivals throughout the fall semester. Students are encouraged to continue their study of their instruments and working in an ensemble through this course. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. May be repeated. Offered fall semesters. Zero or one credit.
MU-175	INSTRUMENTAL ENSEMBLE	Because ensemble playing is vital for the training of any music student, students are required to participate in instrumental ensembles as these ensembles become available. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.
MU-180	SAINT VINCENT COLLEGE SINGERS	Saint Vincent College Singers is an ensemble that explores the various genres of secular vocal music throughout all periods with an emphasis on popular song and American music. The ensemble is open to majors and non-majors and rehearses once a week. Several concerts are presented each semester. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.

COURSE	TITLE	COURSE DESCRIPTION
MU-181	MUSICAL THEATER WORKSHOP	In this course students participate in every aspect of producing a musical theater production. Aspects of production that will be covered will be musical preparation, stagecraft, and acting. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.
MU-182	OPERA WORKSHOP	This course will offer the experience of participating in either an opera scenes program or in a full opera production. Students will be involved in musical preparation including the correct use of the diction of the language in which the piece is composed. Other aspects covered will be acting, stagecraft, and historical performance practice. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. Permission of the instructor is required. May be repeated. Offered both semesters. Zero or one credit.
MU-185	SAINT VINCENT CAMERATA	The Saint Vincent Camerata, founded in 1968, specializes in the choral/orchestral repertoire from the Baroque through the Contemporary periods. The Camarata offers two major programs per year, performing in the Saint Vincent Basilica, and in major churches in Pittsburgh and elsewhere. It is open to all students of the College and to all members of the Saint Vincent community, by audition. Can fulfill the Core Curriculum Fine Arts requirement if a total of three credits of the same ensemble are taken. May be repeated. Offered both semesters. Zero or one credit.
MU-205	SIGHT SINGING, EAR TRAINING AND SOLFEGGIO	This is the first course in learning the ability to sing melodic and harmonic pitches at sight and to be able to recognize these pitches when heard. Melodic and harmonic dictation is included and the study of the effective use of solfeggio syllables, in both rhythmical and tonal articulation, provides a sturdy foundation for a more precise performance of music. Prerequisite MU 115. Offered spring semester in even-numbered years. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MU-206	SIGHT SINGING, EAR TRAINING A SOLFEGGIO II	This is the second course in the series that continues with a more advanced study of the singing of melodic and harmonic pitches at sight. More rigorous melodic and harmonic dictation and a greater facility of solfeggio syllabification enables the student to attain musical precision both rhythmically and tonally, which is essential for the realization of a more mature and professional performance. Prerequisite MU 205. Offered fall semester in even-numbered years. Three credits.
MU-208	HARMONY I	Harmony I introduces the student to the harmonic language of Western music. The approach will emphasize composing four-part harmonic phrases, but will also regularly incorporate singing, harmony at the keyboard, ear training, movement, and harmonic analysis. The goal of the study of Harmony is to acquire fluency with musical vocabulary (chords) and musical grammar (chord progressions and modulations), understanding both as necessary components of musical literacy. Topics include Major Mode, Minor Mode, and Dissonance Treatment. Prerequisites: MU 115 or permission of instructor. Three credits.
MU-209	HARMONY II	Harmony II is a continuation of Harmony I, again emphasizing the composition of four-part phrases, together with singing, playing, ear training, movement, and analysis exercises. Topics include Modulation, Harmony and Rhythm, Chromatic Harmony, Cadences, Harmonization of chorale melodies and of figured basses. Prerequisites: MU 208 or permission of the instructor. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
MU-220	FORM & ANALYSIS	<p>The study of musical form, traditionally called "Form & Analysis", integrates previous courses in Music Theory with the student's study of musical repertoire. The goals of Form & Analysis are first, to introduce the student to the most common and significant musical forms, and second, to develop each student's "sense of form". The repertoire to be studied will include an historical survey of a selection of musical forms from Gregorian Chant to the Contemporary period. The development of a "sense of form" comes with active listening, movement exercises, simple composition exercises, and the application of these in musical performance. Prerequisites: MU 209 or permission of the instructor. Three credits.</p>
MU-225	SECONDARY INSTRUMENT LESSONS MAJORS/MINORS	<p>This instruction is for the music major or music minor's secondary instrument of study. Individual instruction in piano, organ, voice, guitar, violin, flute, trumpet, French horn, clarinet, saxophone, and trombone. Other instruments of study may be arranged through the department chair. One-half hour (1 credit) or one hour (2 credits) of weekly instruction are possible. Permission of the instructor and chair is required. May be repeated. Offered both semesters. Fee. One or two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
MU-250	GREGORIAN CHANT WORKSHOP	<p>The 2-week summer Gregorian Chant Workshop is structured in 2 parts: Part 1. Introduction to Historical Performance Practice which includes an historical outline of Gregorian Chant from its origins to the most recent printed editions, practice in the study of Gregorian Chants characteristic "melodic-verbal style", aesthetics of the Latin language, elements of modality, principles of Gregorian Semiology, and the application of these to singing simpler antiphons from the Graduale Simplex and Graduale Triplex. Part 2. Introduction to Gregorian Semiology of Eugene Cardine, O.S.B., and the New Science of Gregorian Modality (Jean Claire, O.S.B. and Alberto Turco) includes singing simpler Mass antiphons using the Xth century St.Gall neumatic notation, application of recent research into Gregorian Modality including the "mother tones", archaic modes, and an introduction to the Graduale Novum (2011). No prerequisites, but experience with choral singing and the ability to read music are recommended. Two credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
MU-280	SUPERVISED PRACTICUM	<p>This course is open only to students enrolled in the Sacred Music Minor, or in the Concentration in Sacred Music. Students enrolled in this course participate in Liturgies on campus (Wednesday Evening Community Mass, Student Chapel Masses, or other approved liturgies) in a variety of music ministries according to their areas of expertise and level of experience, including: 1. Organ service playing, with supervision in liturgical planning, techniques of hymn and chant accompaniment, choral and vocal solo accompanying. 2. Cantoring and small ensemble singing, with supervision in choral/vocal techniques, liturgical planning, vocal pedagogy, choral pedagogy, rehearsal techniques, conducting, choral repertoire, a cappella singing. 3. Sacred Music Composition of responsorial psalm settings, hymn descants, chant accompaniment, motets. Faculty supervision will focus on the technical, liturgical, pastoral, and spiritual considerations necessary for the formation of liturgical musicians. Students will keep a journal of their activities to be presented at the end of each semester. Course is taken one semester for zero credit and one semester for one credit each academic year.</p>
MU-317	DICTION FOR SINGERS: ITALIAN, SPANISH AND LATIN	<p>This course deals with the correct articulation of diction and the pronunciation of words for singers as they are sung in Italian, Spanish and Latin. Students will learn the International Phonetic Alphabet. Required for all music majors whose primary instrument is voice. Offered as needed. One credit.</p>
MU-318	DICTION FOR SINGERS: GERMAN, ENGLISH, AND FRENCH	<p>This course deals with the correct articulation of diction and the pronunciation of words for singers as they are sung in German, English and French. Students will learn the International Phonetic Alphabet. Required for all music majors whose primary instrument is voice. Offered as needed. One credit.</p>

COURSE	TITLE	COURSE DESCRIPTION
MU-320	JUNIOR SEMINAR	This seminar is intended for juniors in the Performing Arts Concentration of the Arts Administration major as a preparation for MU 410 Senior Research Project/Thesis. It will focus on identifying a research topic, and emphasize research techniques, presentation skills, and writing skills. For arts administration majors with performing arts concentration. Offered spring semester, or as needed. Three credits.
MU-325	PRIMARY INSTRUMENT LESSONS FOR MAJORS/MINORS	This private instruction is for music majors and minors studying their primary instrument (organ, voice, guitar, violin, flute, trumpet, French horn, clarinet, saxophone, and trombone) Majors should register for one hour (two credits) of weekly instruction. Minors may register for one-half hour (one credit) or one hour (two credits) of weekly instruction. A jury is required for both majors and minors. May be repeated. Permission of instructor and chair is required. Offered both semesters. Fee. One or two credits.
MU-330	JUNIOR RECITAL	Music Performance majors are provided with an invaluable opportunity to perform a solo recital on his or her major instrument during the junior year of study. Required for music performance majors. Offered as needed. Fee. One credit.
MU-350	INDEPENDENT STUDY--MUSIC	Topics of research are chosen and developed by the student with the guidance of the faculty member directing the study. For junior or senior music majors and minors only. May be repeated. Permission of the instructor and chair required. Offered as needed. Variable credit.

COURSE	TITLE	COURSE DESCRIPTION
MU-410	SENIOR RESEARCH PROJECT/THESIS	This Senior Research Project/Thesis takes several forms depending upon the student's major and interest. For instance, Arts Administration majors with a Performing Arts Concentration are guided through the writing of a thesis or documenting of a research project; whereas Music majors or Music Performance majors may wish to do further study, one-on-one with a faculty member in such areas as musical composition, choral or orchestral conducting techniques, music theory, or music history. Whatever form the course takes, the student will work closely with a faculty member who will serve as the advisor. The finished project will be submitted to a committee for review. Offered fall semester, or as needed. Three credits.
MU-420	GREGORIAN CHANT	An introduction to the history, theory, spirituality and performance of Gregorian chant. Three credits. Offered Spring semester in even-numbered years. Cross-listed in Saint Vincent Seminary as MU 720. Three credits.
MU-425	PRIMARY INSTRUMENT LESSON FOR PERFORMANCE MAJORS	This individual instruction is limited to music performance majors studying piano, organ, or voice. Two hours of weekly private instruction. A jury is required. May be repeated. Permission of instructor and chair is required. Offered both semesters. Fee. Four credits.
MU-430	SENIOR RECITAL	The Senior Recital is the culmination of the Music Performance major's course of study, providing the challenge and prestige of a solo recital on the major instrument. Required for music performance majors. Offered as needed. Fee. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
MU-550	MUSIC INTERNSHIP	Students may work in a professional setting in order to extend their learning experience beyond college into the professional world of music; relevant experiences can take the form of internships, field work, and cooperative programs, particularly in music studios, music businesses, music schools, music organizations, and music management offices. Students may or may not be paid, depending on the policy of the employer. For junior and senior music division majors and minors only. May be repeated. Offered both semesters. Variable credit.
FS-179	FRESHMAN SEMINAR SKILLS	This course is required of all students who do not successfully complete First-Year Seminar. Through lecture presentations, inclass activities, out-of-class assignments, and appropriate tests, the course provides students with review and assessment of skills identified as target skills for all First-Year Seminar courses taught in the previous semester. Three (3) credit. No pass/fail. Permission of/placement by First-Year Seminar Director required.
ND-142	THE SCIENCE OF STRENGTH	This multidiscipline course introduces the practical acquisition and application of human strength. Students will demonstrate basic understanding of the musculoskeletal system, basic physiology and a basic understanding of human mechanics. Students will learn about the theory and benefits of strength accumulation and will demonstrate competency in the methods for acquiring force production. One credit.
ND-178	PRINCIPLES OF ACADEMIC SUCCES	Principles of Academic Success (ND 178) is a one credit course designed to assist the students in developing the reading and study skills necessary for success in college. Course work includes test taking, note taking, and study strategies. Students will learn to manage their time, become "solution finders," and strive to become independent thinkers and achievers. The students will be expected to apply the strategies presented in the class to their other course work throughout the semester. In addition to the material presented by the instructor, occasional guest lecturers will give presentations. One credit.

COURSE	TITLE	COURSE DESCRIPTION
ND-400H	HONORS SEMINAR	HONORS COURSE. The honors seminar is the capstone course for students in the Honors Program and a requirement for graduating as a College Scholar of the Honors Program. This course is an interdisciplinary, thematic seminar that utilizes critical readings, discussions and creative assignments (often done in groups) to investigate capacious problems. Offered every spring term. Three credits.
ND-401	PROJECT IN CHILDREN'S STUDIES	This one-credit course will serve as a capstone experience for students completing the minor in Children's Studies. Students will work with the director to develop their own individualized project corresponding with their own interests. For instance, students may choose to complete a comprehensive research paper related to childhood. Another option may be completion of an internship experience working with children or with issues pertaining to children. Students may also propose their own idea for a capstone project to the program director. One credit.
ND-402H	HONORS TRIP TO CHINA	HONORS COURSE. This course is open only to students who will be traveling to China with the Honors Program. Students who enroll and travel with the Honors Program will read selected texts, participate in discussions, and submit writing assignments related to the Language, History, and Culture of China. One credit.
ND-410	LSAT PREPARATION	Designed to assist students in preparing to take the examination in conjunction with their application to law school, this course will focus on instruction in the areas of analytical reasoning, problem analysis and reading comprehension. The course is designed to help students become confident in their approach to this type of standardized exam. Enrollment is limited to 20 participants, but space may be available for Saint Vincent alumni and students of other institutions. P/F only. One credit.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-100	ASTRONOMY	This course provides an introduction to the study of Astronomy focusing on the development of our understanding of the universe. Subjects of emphasis include the development of classical mechanics as an explanation of the motion of the planets; the structure, formation and evolution of the sun and other stars; and our modern understanding of cosmology. This course provides a more advanced application of the scientific process. Formerly PH 151. Prerequisite: MA 104. Three credits.
NSCI-101	ASTRONOMY LAB	This course consists of hands-on laboratory exercises chosen to illustrate topics in modern astronomy. Topics of the exercises may include stellar photometry, observation and measurement of star clusters and galaxies, and observation of the Moon and planets. Offered in conjunction with NSCI 100 Astronomy. Formerly PH 153. One credit.
NSCI-105	ANIMAL BEHAVIOR	This course will introduce students to the study of animal behavior. The course will provide an overview of the mechanisms that animals use to sense and interact with the environment and with each other. There will be extensive examination of the various behaviors that animals have evolved as means for survival in a challenging world. The course will discuss how these behaviors give insight into human behavior and psychology. Additionally, there will be a component of the course that involves the discussion of the sociobiology debate and the ethical issues that accompany the study of animal behavior. Formerly BL 117. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-110	BACTERIA, FRIENDS OR FOES?	This course will include discussions, lectures, and laboratories to study the tiny creatures that surround us known as microorganisms, particularly bacteria and viruses. The course will study the two-sided relationship between microorganisms and man. Most people think of bacteria and viruses as harmful because they cause disease. On the other hand, these tiny entities have many positive roles in our society including advancing biotechnology, food and beverage production, and roles in the environment including degrading of materials and cycling of nutrients. These and other topics will be discussed. No prerequisite. Formerly BL 116. Four credits.
NSCI-115	HISTORY OF VISION	This course investigates the development of models for light and vision as it took place in three civilizations: the ancient Greeks, the Middle East, and Renaissance Europe. Attention is given to the relationship between science and history, philosophy, psychology and religion. Special attention will be given to the work of the Arab scholar Alhasan ibn al-Hytham. No previous knowledge of optics is required. Interest in writing, reading and class discussion is necessary to succeed in this course. Formerly PH 195. Prerequisite: MA 104. Three credits.
NSCI-116	HISTORY OF VISION LABORATORY	This laboratory examines the experimental physics that is associated with the fundamentals of light and optics. Experiments will cover topics on the movement and nature of light, reflection, refraction, radiation, optical properties of matter and more. To be taken with NSCI 115. Formerly PH 197. One credit.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-120	INTRODUCTION TO BIOLOGY	This course provides insight into the organization of living systems at the molecular, cellular, organismal and population levels. Emphasized are the structural and functional characteristics common to most organisms, organismal diversity, biological evolution, and interactions between organisms and their environment. The laboratory is designed to introduce the process of science and the characteristics of scientific knowledge. Students learn to formulate questions and hypotheses, design simple experiments, interpret results, draw conclusions and present their work in scientific formats. No prerequisite. Formerly BL 100. Four credits.
NSCI-125	INTRO TO ENVIRONMENTAL SCIENC	This course is designed to introduce both science and non-science majors to the physical processes and interrelationships between air, water, soil, and biota. Issues such as over population, pollution, and risk assessment will be covered. Offered fall semester. Formerly ES 115. Three credits.
NSCI-125F	INTRO TO ENVIRONMENTAL SCI	FIRST YEAR SEMINAR. This course is designed to introduce both science and non-science majors to the physical processes and interrelationships between air, water, soil, and biota. Issues such as over population, ollution, and risk assessment will be covered. Offered fall semester. Formerly ES 115. Three credits.
NSCI-126	INTRO TO ENVIRON. SCI. LAB	Laboratory exercises are designed to physically illustrate the principles discussed in NSCI 125. Must be taken simultaneously with, or after successful completion of NSCI 125. Offered fall semester. Formerly ES 117. One credit.
NSCI-130	INTRODUCTION TO PHYSICS	This course introduces students to the methods and techniques used to scientifically describe the world around us. Special emphasis is placed on the field of mechanics - the study of motion. Students become comfortable solving general problems such as projectile motion, energy, and momentum. These problems are solved using only algebra - neither trigonometry nor calculus is a prerequisite. Other topics may include modern physics, optics, electricity and magnetism, and fluid motion. Formerly PH 103. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-131	INTRODUCITON TO PHYSICS LAB	This course consists of hands-on laboratory exercises chosen to illustrate concepts of classical and modern physics. Topics may include falling objects, the motion of a pendulum, collisions, projectile motion, the physics of flight, and simple optics. Offered in conjunction with NSCI 130 Introduction to Physics. Formerly PH 104. One credit.
NSCI-135	PHYSICAL GEOLOGY	An introduction to the study of the Earth focusing on the physical processes that determine the internal structure of the earth and the formation and evolution of the Earth's landscapes. Subjects of emphasis include the various types of rocks and minerals, weathering and the hydrological cycle, plate tectonics, and the earth's place in the solar system. Formerly ES 106. Offered fall semester. Three credits.
NSCI-136	PHYSICAL GEOLOGY LAB	This course consists of hands-on laboratory exercises chosen to illustrate and reinforce the topics presented in NSCI 135 Physical Geology. Topics of the exercises may include crystal growth, rock and mineral identifications both in the laboratory and in the field, mapping and remote sensing techniques, planetary geology and plate tectonics. Some laboratory exercises may include field trips to off-campus locations. Offered in conjunction with NSCI 135 Physical Geology. Formerly ES 107. One credit.
NSCI-140	SCI. & GLOBAL SUSTAINABILITY	This course will examine key scientific concepts related to three major aspects of the broader issue of global sustainability - global climate change, feeding the world's population, and threats to world health. Each of these aspects will serve as the focal point for several weeks of the course. Basic concepts of biology, chemistry, and physics will be introduced as appropriate within the context of each aspect. No prerequisites. Formerly CH 121. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-141	SCI. & GLOBAL SUSTAIN. LAB	The laboratory exercises are designed to physically illustrate the principles discussed in NSCI 140 and to provide students with experience in the process of doing science - asking questions, forming hypotheses, and data analysis. Must be taken simultaneously with, or after successful completion of NSCI 140. Formerly CH 123. Offered fall semester. One credit.
NSCI-150	EARTH SYSTEM SCIENCE	This course will explore the interconnections between the components of the Earth - the hydrosphere, the atmosphere, the lithosphere, and the biosphere. In doing this we will examine the systems that provide balance and stability to the Earth while at the same time explain processes of Earth's evolution. We will accomplish this through an interdisciplinary approach that combines resources from geology, chemistry, biology, oceanography, and meteorology. Offered spring semester. Three credits.
NSCI-152	EARTH SYSTEM SCIENCE LAB	This laboratory course is designed to illustrate and discover principles in Earth Systems Science. This will include computer simulations, physical models, and scientific investigations. Must be taken simultaneously with, or after successful completion of ES 150. One credit.
NSCI-200	ALL ABOUT DRUGS	Almost all of us use drugs, whether over-the-counter drugs, prescription drugs, or recreational drugs. Drugs impact our lives, as well as the lives of our family and friends. In this course, the pharmacology of drugs, including their mechanisms of action, side effects, and therapeutic uses will be discussed. The abuse potential of recreational drugs, tolerance and addiction, and the ethical issues surrounding modern drug discovery also will be discussed. The laboratory component is designed to reinforce lecture concepts. Formerly BL 113. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-201	CHEMISTRY OF ART	The students in Chemistry of Art will learn about the chemistry underlying two- and three-dimensional artworks. Topics in this course include the various ways that color is achieved through chemistry; the many types of chemical processes that are used to make visual artwork; and the ways that chemical analysis can be used to authenticate art. The chemical concepts addressed in this course include atomic and molecular structure, bonding of chemicals and materials, and reactions in liquids, solids and mixtures. This course has an integrated laboratory that explores these concepts through hands-on activities. This course does not require math skills beyond pre-algebra. Offered Fall semester of odd years. Four credits.
NSCI-205	CHEMISTRY OF COOKING	Chemistry of Cooking focuses on the chemistry involved in the structure, preparation, color, flavor, aroma, and texture of the foods we eat everyday. NSCI 205 is designed for the non-science major who is looking to fulfill the science core requirements. The emphasis in this course will be understanding chemical concepts such as physical and chemical changes, chemical bonding, solubility, energy, acids and bases, and an introduction to the structure and function of organic molecules. Students will also be introduced to laboratory methods dealing with measurement, the chemical analysis of foods, classification of physical and chemical changes, and the synthesis and reactions of organic molecules specific to food chemistry. This course does not require math skills beyond pre-algebra. Formerly CH 110 and 112. Offered spring semester odd-numbered years. Four credits.
NSCI-210	CHEMISTRY AND CRIME	This is a non-major science course which will focus on the chemistry concepts of forensic science. These concepts will help explain how various forms of evidence can be left at the scene of a crime, how the evidence is found, and how the laboratory can determine the relevancy of that evidence. We will be studying basic chemical principles such as chemical bonding, solubility, and the structure and function of organic molecules. This course does not require math skills beyond pre-algebra. Formerly CH 118. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-211	CHEMISTRY AND CRIME LAB	This lab provides the student basic methods dealing with evidence collection and analysis. We will look at the chemical analysis of fingerprints, paints, fluids, and many other types of evidence which can be collected and analyzed. Must be taken simultaneously with, or after successful completion of NSCI 210. Formerly CH 119. Offered spring semester. One credit.
NSCI-215	CHEMISTRY OF DAILY LIFE	This course is designed for the non-science major and is an introductory study of the structure and function of organic molecules, including examples from biochemistry and everyday life. Topics include: basic hydrocarbons, functional group chemistry, proteins, carbohydrates and lipids. Selected topics in biochemistry and how drugs work are presented as well as chemical aspects of current issues such as nutrition, and diabetes. This course does not require math skills beyond pre-algebra. Formerly CH 107. Offered spring semester. Three credits.
NSCI-216	CHEMISTRY OF DAILY LIFE LAB	This lab provides non-science majors with an introduction to some elementary methods dealing with the synthesis and reactions of organic molecules, pharmaceutical synthesis, chemical analysis of foods, and characterization of biochemical compounds. Must be taken simultaneously with, or after successful completion of NSCI 215. Formerly CH 108. Offered spring semester. One credit.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-220	ENDANGERED SPECIES CONSERVATI	The rate of global species extinctions today is comparable to that experienced in the Cretaceous when the dinosaurs fell from prominence. This course will examine the modern causes of extinction as well as the techniques in biology used to monitor and sometimes reverse declining populations of endangered animals and plants. Conservation biology is interdisciplinary and uses existing scientific theory to manage animal and plant populations. Thus, the course will feature discussions of ethics and public policy as well as more traditional biological topics such as genetics and ecological interactions. A significant portion of the course grade will be based on a comprehensive term paper and oral presentation. Laboratory sessions will include numerous computer simulations and occasional outdoor activities. Formerly BL 119. Four credits.
NSCI-225	FIELD BIOLOGY	This combined lecture/laboratory course is designed to introduce non-science majors to the study of living organisms through direct observations in streams, pastures, lakes and forests. We will follow examples of ancient and modern field biologists as we develop background knowledge and skills in natural history, field collection methods and modern analysis of field data. Be prepared to work outside during each class, wearing old shoes, hip boots, or a life vest. For non-science majors. No prerequisite. Formerly BL 104. Four credits.
NSCI-227	FORESTRY/FOREST MANAGEMENT	Forestry and Forest Management provides a broad overview of forests, forestry, forest engineering, and wood science and engineering. This course is designed for all students, especially those interested in forest resources and human uses of those resources. It provides an overview of forest attributes and issues worldwide, with strong emphasis on the United States and especially the Northeast. Emphasis will be placed on the importance of forests in sustaining human societies and a consideration of the appropriate roles of humans in managing and conserving forests for the numerous products, values, and amenities they provide. Offered fall semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-228	FORESTRY/FOR.MGMT.LAB	This laboratory course will give students an opportunity to do science as it relates to the aspect of forestry. The goals of this course are to introduce students to various concepts in forestry and forest management and to develop laboratory skills such as observation, experimentation, evaluation, and presentation. The class will culminate with a student designed presentation and a lab practical. During the semester, students will have several opportunities to visit forest ecosystems and gather samples, take measurements, and interact with the environment. Students will spend several of the laboratory periods outside even when the weather is not sunny and dry. Should be taken simultaneously with NSCI 227. One credit.
NSCI-230	GENES, CELLS & COMPUTERS	This course provides an introduction to the intersection of biology and computers that is reshaping the arenas of biology, biotechnology, and medicine. Topics covered include cellular structure and function, gene structure and function, genetics, molecular evolution, and quantitative and computational approaches to biology. In addition ethical and social issues presented by new technologies such as genetic engineering and personalized genomic sequencing will be discussed. No prior college-level biology or computing experience is assumed. Formerly BIN 110. Offered spring semester. Three credits.
NSCI-231	GENES, CELLS & COMPUTERS LAB	This course is the companion laboratory course to NSCI 230. The labs will consist of both "wet lab" experiments and computational labs. In the wet labs students will carry out basic molecular biology techniques such as purifying their own DNA, PCR analysis, and molecular cloning, while in the computational labs they will use software to analyze DNA sequences. No prior college-level biology or computing experience is assumed. Must be taken concurrently with NSCI 230. Formerly BIN 111. Offered spring semester. One credit.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-235	HUMAN BIOLOGY & LABORATORY	This course is an overview of the human body's structure, its functionality, and the process of reproduction. We will give some attention to learning about common disease states and the efforts to treat them. Lastly, we will explore topics of specific interest to college students such as the importance of sleep, maintenance of immune function, and the body's ability to cope with stress. Case studies, class discussions, and student presentations will be integrated into lecture and lab periods in addition to experimental and observational study in the laboratory. Formerly BL 114. Four credits.
NSCI-240	IT'S NOT ROCKET SCIENCE	This course introduces the physical principles involved in the design and flight of rocket propelled vehicles with hands-on experience building and flying model rockets. The course covers Newton's description of motion, aerodynamics, the operating principles of rocket motors, the history of space flight, and the legal issues surrounding hobby rocketry. Must be taken in conjunction with NSCI 135. Formerly PH 171. Three credits.
NSCI-241	IT'S NOT ROCKET SCIENCE LAB	Laboratory course to accompany NSCI 240. Students develop a working knowledge of the measurement techniques and design strategies necessary to test, launch, and recover model rockets. Students work in groups to design, build, and test a model rocket to meet a challenge goal similar to the Team America Rocketry Challenge. Formerly PH 173. One credit.
NSCI-245	KILLER GERMS	This course will include discussions, lectures, and laboratories to study past, present, and potential future diseases caused by microorganisms. The course will focus on the bacterial microorganisms and viruses, how they cause disease, treatments, and their impact on society. Topics will include tuberculosis, HIV/AIDS, antibiotic-resistance, and other significant topics. Formerly BL 118. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-247	LIFE & THE UNIVERSE	Are we alone in the universe, or is the universe teeming with life? This course will explore the unknown but possible answers to that question from a variety of perspectives. The physical, astronomical, chemical, and geological conditions necessary for life on a planet will be investigated. We will examine historical and modern searches for life outside of Earth, including the search for extraterrestrial intelligence. We will also consider some of the social, philosophical, and religious implications of the possibility of life elsewhere. Classes will utilize the Taiani Planetarium to enhance our exploration of this subject. Formerly PH 131. Three credits.
NSCI-248	LIFE & THE UNIVERSE LAB	The origins of life on this planet and the possibility of life elsewhere will be explored with a variety of experiments and observations. Labs will include topics in astronomy, biology, physics, and geology, that are related to the search for extraterrestrial life. Some of the labs will utilize the Taiani Planetarium, and the Physics Department telescopes. This laboratory course accompanies NSCI 247. Formerly PH 133. One credit.
NSCI-250	SCI. ABANDONED MINE DRAINAGE	We will explore the science of coal mining and its aftermath: mine drainage. The course will use field trips (museums, mines, streams, treatment sites), video, class discussions, computer models, Internet explorations, and recent publications to understand coal mine drainage. We will see firsthand how new technologies have been developed to treat mine drainage. Lab explorations will include computer modeling, stream sampling, experiments on formation of mine drainage, its impacts on streams, and the efficiency of treatment methods. A final group project will examine a mine drainage site and develop a plan for remediation. Through the study of abandoned mine drainage we will examine the interrelationships in nature and see that by working together we can make a difference in our environment. Formerly ES 111. Offered fall semester. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-252	SCIENCE OF SUSTAINABLE LIVING	In Science of Sustainable Living, students will examine individual, community, and global solutions to living more lightly on the planet by exploring a variety of sustainable living practices, theories, technologies, and programs. Within the framework of environmental science, students will be able to understand ecological processes that are the basis for common sustainable practices, such as composting, green energy, recycling, and gardening. Students will be able to evaluate the impact of their own consumption of natural resources in relationship to ecological processes and human need for material goods and services. No pre-requisites. Offered fall semester. Three credits.
NSCI-253	SCIENCE OF SUSTAINABLE LIVING LAB	This laboratory course will explore scientific questions related to sustainable living. Students will examine topics such as recycling, composting, green energy, and organic gardening. Some labs will require outside work and or field trips to local sites. Must be taken simultaneously with NSCI 252. Offered fall semester. One credit.
NSCI-255	SCIENCE OF COMPUTING	This course establishes computing as a science and affirms the connection between computing and the sciences. Topics include the scientific method, methodologies used in computer science for evaluating hypotheses, as well as how computing is used as a tool in other fields of science. The course includes a lab component in which students will get hands-on experience investigating computer science problems. Programs will be set up for students to run so they can test different hypotheses. It will be possible to configure the programs with different parameters to see the impact of running over more data sets, running different algorithms, running in different environments, etc. The experiments involve generating and collecting data that can be analyzed to determine whether preliminary hypotheses are true or false. The data, analysis, and conclusions will be written up as lab reports. Formerly CS 104. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
NSCI-260	BIOTECHNOLOGY: HOW DO THEY DO IT?	This integrated lecture-laboratory course is focused on the ways in which our understanding of biological systems is applied for practical purposes. The lecture portion addresses the basic biology and theory behind topics such as genetic engineering of microbes, plants, and animals for agricultural, industrial, and medical purposes; cloning of genes, plants and animals; as well as, DNA analysis in forensic science and medicine. Special consideration is given to the ethical issues raised by the application of these technologies. The laboratory component is designed to reinforce the scientific method while providing hands-on experience with DNA technologies and forensics analyses. No prerequisite. Formerly BL 112. Four credits.
NSCI-300	CRIMINALISTICS	Criminalistics is the collection and examination of evidence of crime and is an application of many scientific disciplines. This course provides an introduction to the methodologies and applications used in the forensic context. Topics discussed include organic and inorganic chemical analyses of physical evidence, principles of serology and DNA analysis, identification of fresh and decomposed human remains, ballistics, fingerprint analysis, facial reconstruction, drug analysis, and forensic entomology. Three credits.
PL-00X	PHILOSOPHY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
PL-101	1ST PHILOSOPHY	This course is intended to introduce philosophy to students unfamiliar with the field. Its intent is to provide a coherent sense of the important issues and approaches embraced by philosophy and to do so by setting these in a vital, historical context. Important ideas from the ancient, medieval, modern and contemporary periods will be explored both in their abstract setting as well as in terms of the ways in which they have affected the development of our cultural, scientific and spiritual lives. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-101F	FIRST PHILOSOPHY	FIRST YEAR SEMINAR. This course is intended to introduce philosophy to students unfamiliar with the field. Its intent is to provide a coherent sense of the important issues and approaches embraced by philosophy and to do so by setting these in a vital, historical context. Important ideas from the ancient, medieval, modern and contemporary periods will be explored both in their abstract setting as well as in terms of the ways in which they have affected the development of our cultural, scientific and spiritual lives. Four credits.
PL-101H	HONORS -- FIRST PHILOSOPHY	HONORS COURSE. This course is intended to introduce philosophy to students unfamiliar with the field. Its intent is to provide a coherent sense of the important issues and approaches embraced by philosophy and to do so by setting these in a vital, historical context. Important ideas from the ancient, medieval, modern and contemporary periods will be explored both in their abstract setting as well as in terms of the ways in which they have affected the development of our cultural, scientific and spiritual lives. Three credits.
PL-120	LOGIC	This introductory course seeks to formalize the everyday use of logic to distinguish correct and incorrect forms of reasoning. After setting general terms for argument analysis, the distinguishing features of deductive and inductive arguments are noted. Language as the vehicle of logic is considered, including the purposes and types of definition and recognition of common informal fallacies. The balance of the course is devoted to deduction, with special consideration given to Venn diagrams as a mechanical test of the validity of categorical syllogisms. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-120H	LOGIC	HONORS COURSE. This introductory course seeks to formalize the everyday use of logic to distinguish correct and incorrect forms of reasoning. After setting general terms for argument analysis, the distinguishing features of deductive and inductive arguments are noted. Language as the vehicle of logic is considered, including the purposes and types of definition and recognition of common informal fallacies. The balance of the course is devoted to deduction, with special consideration given to Venn diagrams as a mechanical test of the validity of categorical syllogisms. Three credits.
PL-121	LOGIC/PHILO OF KNOWLEDGE	This course introduces well-prepared and -motivated students to classical logical reasoning using the following questions: What can be known by humans? How do we come to know those things? Are other sorts of knowledge possible, by other sorts of beings or by ourselves? Compared to PL 120, Logic, this course is devoted to formal logical analysis and writing rather than informal logic. It is intended for those with strong interest in philosophy or related disciplines. Three credits.
PL-201	ANCIENT PHILOSOPHY	Ancient philosophy begins in the sixth century BC with Thales' attempt to discover the first principle(s) of the universe, and ends in the third century AD with the Neoplatonists' pursuit of the One. This course explores this birth of philosophy in the West, focusing on the major movements and figures that characterize this period. Attention will be given to the Presocratics, Plato, Aristotle, the Hellenistics (such as Stoicism, Scepticism, and Epicureanism), and Neoplatonism. The course serves both as a freestanding consideration of this important period of thought as well as the introduction to the history sequence offered by the philosophy department. Prerequisite: PL101. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-202	MEDIEVAL PHILOSOPHY	<p>While it is difficult to provide specific dates for the beginning and ending of Medieval Philosophy (roughly 4th century AD to 15th century AD), this period is characterized by attempts to bring Abrahamic religions (Judaism, Christianity, and Islam) into dialogue with the Greco-Roman philosophical tradition. Such thinkers as St. Augustine, Moses Maimonides, Averroes, St. Anselm, St. Thomas Aquinas, and Duns Scotus were noted for their systematic attempts to use both revelation and reason in the pursuit of Wisdom. This course explores this period in the history of philosophy. Prerequisite: six credits in philosophy. PL 201 is recommended. Three credits.</p>
PL-203	MODERN PHILOSOPHY	<p>This course considers philosophical thought from the late 16th century to the end of the 18th century--a period marked by profound intellectual, religious, and political revolutions. Through a radical critique of late medieval philosophy, modern philosophers created the new science that evolved into the natural sciences that we know today. And through a complex rethinking of the relationship between freedom, community, and law, they contributed to the political, moral, and religious transformations that set the stage for our contemporary culture. At the discretion of the instructor, this course will consider thinkers such as Montaigne, Bacon, Galileo, Descartes, Spinoza, Leibniz, Locke, Berkeley, Rousseau, Hume, and/or Kant. Three Credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PL-204	KANT AND HIS SUCCESSORS	<p>This course begins with a study of the monumental work of the 18th-century philosopher, Immanuel Kant, and then proceeds to consider the various reactions to this work in the following century. It is difficult to overestimate the influence of Kant, who not only set the terms for the debates that followed him, but provided a narrative of modern philosophy that continues to dominate discussions of the thought that preceded him. Although best known for his revolutionary critique of reason, which radically limits the access that the human subject has to the world-in-itself, Kant himself was equally concerned with questions about the moral, political, and aesthetic experience of the human subject. He insisted that human beings are agents with equal and inviolable dignity, and he reconceived of history as humanity's self-education in freedom. In so doing, he initiated a philosophical discussion emphasizing human subjectivity, individual freedom and self-expression, and a philosophy of history itself. This discussion was carried forward by numerous 19th-century thinkers, including Fichte, Schelling, Hegel, Schopenhauer, Marx, and Nietzsche. The course will consider some of these thinkers (and possibly others), at the discretion of the instructor. Prerequisite: Six credits in Philosophy. Three credits.</p>
PL-205	CONTEMPORARY PHILOSOPHY	<p>This course examines the philosophical thought of the 19th and 20th centuries. It takes as its starting point the rebellion against the Kantian world view, and focuses on the increasingly important roles played by history and human individuality in philosophical reflection. In pursuing this theme the approaches of positivism, existential phenomenology, and the Anglo-American analytic movement will be examined. The course considers, among others, such thinkers as Hegel, Marx, Nietzsche, Russell, and Heidegger. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PL-206	19 & 20 CENTURY PHILOSOPHY	<p>In the 19th and 20th century, western philosophy underwent a marked fragmentation of both theme and approach. The common divide between "continental" and "analytic" philosophy only partially captures the complexity of the philosophical landscape during this period. It is a period coming to grips with the aftermath of Kant's revolutionary thought, increased recognition of the historicity of humanity, the rise of political nationalism, economic revolutions, and scientific advancements on a grand scale. The responses to this situation include (but are not limited to) the strong emphasis on historicity and subjectivity that we find in existentialism and phenomenology, the grappling with the philosophy of history in such thinkers as Marx, Hegel, and Collingwood, and the scientific and "linguistic turn" that characterizes much of both early and late analytic philosophy. This course will focus on some portion of this varied landscape, in accordance with themes chosen by the instructor. Prerequisite: Six credits in Philosophy. Three credits.</p>
PL-210	PHILOSOPHICAL ANTHROPOLOGY	<p>The attention of this course is directed at the question: What does it mean to be a human being? The course will systematically examine some of the leading views of human existence set forth over the last 24 centuries. The guiding perspective for the investigation will come from contemporary suggestions. Thinkers of this century have urged that we must pay close attention to the fact that while humans do have the capacity to act independently of the constraints of instinctual and biologically determined behavior, we are embodied, and thus must acknowledge the historical, linguistic, and cultural elements of our being. Within this context, the course will reflect on the objective, subjective, or ultimately fluid character of human nature. It will examine the variously suggested rational, passionate, playful, moral, religious, or gender based character of humanity. This course provides serious and advanced study in the discipline; majors, minors, or instructor permission. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PL-215	ETHICS	Ethics is practical philosophy indicating, in general, what humans ought to do in the light of appropriate rules of conduct and suitable ends. Some fundamental views of right and good are considered in their classical formulations by such thinkers as Plato, Aristotle, Aquinas, Hume, Kant, and Mill. Problems and examples are used to illustrate these views and to provoke judgments regarding concrete issues. Three credits.
PL-215H	HONORS ETHICS	HONORS COURSE. Ethics is practical philosophy indicating, in general, what humans ought to do in the light of appropriate rules of conduct and suitable ends. Some fundamental views of right and good are considered in their classical formulations by such thinkers as Plato, Aristotle, Aquinas, Hume, Kant, and Mill. Problems and examples are used to illustrate these views and to provoke judgments regarding concrete issues. Three credits.
PL-216	ETHICAL PROBLEMS	This course will consider opposing viewpoints on contemporary issues such as abortion, racism, sexual morality, the environment, capital punishment, hunger, legislation, and public policy. Students will also be asked to review concepts such as subjectivism, psychological and ethical egoism, the relationship between morality and religion, and the possibility of objectivity in ethics. Three credits.
PL-217	ENVIRONMENTAL ETHICS	This course investigates the different ways that human beings think of the environment and the influence that these various conceptions have upon defining what, if any, responsibility human beings have to the natural world. Special attention will be given to the source and meaning of the term "value" as well as to the specifications that are used to assign or distribute this term. The principal environmental theories that indicate the origin and range of value that will be examined include: anthropocentrism, individualism, holism, biocentrism, ecocentrism, speciesism and ecofeminism. Some practical concerns that will be examined in order to consider the implications of the various value theories are urban growth, poverty, use of natural resources, energy production, food production and distribution, pollution and population control. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-218	BIOETHICS	This course will examine the ethical issues surrounding such postmodern technologies as genetic manipulation, human and animal cloning, and the 'creation'+G818 of transgenic organisms as well as the moral dilemmas that result from gene therapy, contraception, stem cell and fetal tissue research, and the use of animals and humans as test subjects. Three credits.
PL-220	THEORIES OF KNOWLEDGE	This course explores, both topically and historically, the various avenues which philosophical thought has followed in its attempts to understand how humans gain knowledge of themselves and the world in which they are situated. Representative views of classical thought, Continental rationalism, British empiricism, transcendental idealism, 20th-century realism, and phenomenology will be examined. In each case, the structure of consciousness and the relation of consciousness to objects known will be explored. Flowing from this will be a consideration of their respective accounts of perception, conception, memory, judgment, and truth. Throughout the course, each of the views will be critically evaluated as to its adequacy of the human experience. This course provides serious and advanced study in the discipline. Three credits.
PL-227	PHILOS AND EROS	In this course participants will seek to explore the puzzling relationship between Eros and philia. We will lay down a foundation by seeking traditional philosophical answers as to how to embrace the paradoxical aspects of love, looking for advice from such diverse thinkers as Plato, Augustine, Rousseau, Hegel, Nietzsche, and Freud. After establishing this footing we will extend our investigation by listening to the counsel of psychologists, psychoanalysts, artists and poets. Finally, we will look to contemporary contributions made by those employing the tools of feminism and poststructural analysis. Interspersed throughout the course we will concretize our theoretical reflections with examinations of specific issues such as the dialectic between the erotic and the pornographic and the multivalenced direction of sexuality. Prerequisite: Two previous courses in philosophy. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-230	METAPHYSICS	This course is designed to introduce the student to some of the basic metaphysical themes. It will be concerned with various areas of theoretical philosophy, considering questions regarding: the nature of the world, knowledge and truth, freedom, the mindbody view of man, and various conceptions of God. The approach of the course will be problem-oriented, and the medium will be the views of various major thinkers in Western Philosophy. This course provides serious and advanced study in the discipline. Three credits.
PL-232	AESTHETICS	In this course students will consider major theories in the philosophy of art, working to gain a pluralistic understanding of aesthetics. These concepts, from classical, contemporary and post-modern sources, will be applied to works of art from a variety of media. Three credits.
PL-235	PHILOSOPHY OF GOD	This course discusses the term 'god'+G825 as used among different peoples and cultures, with special emphasis, of course, on the Judeo- Christian understanding of it. Distinct from sacred theology, it examines by the light of reason the proofs for the existence of God and related questions. The course also considers modern problems about theism and atheism. Three credits.
PL-240	INFLUENCE OF PHILOSOPHY ON THEOLOGY THEN AND NOW	The course traces some of the effects which Platonic, Aristotelian, and Stoic philosophies have had on such theological questions as the nature of (the Christian) God, God's relationship to the world, the understanding of the human person, as well as some ethical doctrines which permeate Western thinking. Some solutions are suggested. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-245	PHILOSOPHY OF SCIENCE	This course is designed to address the general question of what it means to take up the world in a "scientific" way. It traces the historical genesis of this special way of knowing, examining how scientific thought came to set itself apart from "non-scientific" engagement with the world. Of particular concern is the division of science, begun in the 19th century, into three branches: the natural, social, and human sciences. The justifications for this division are examined, giving careful attention to their divergence as well as to the question of an underlying commonality. Reflection on the ongoing ramifications of this rift for contemporary life brings the course to its close. Readings will be drawn from across the history of the philosophy of science, including such thinkers as Aristotle, Galileo, Bacon, Comte, Mill, Dilthey, Mach, Carnap, Popper, and Kuhn. Prerequisites: 6 credits in philosophy or instructor permission. Three credits.
PL-250	SYMBOLIC LOGIC	The course begins with basic propositional logic using truth table tests for arguments, then moves to the validation of arguments with the aid of simplification and inference rules. Attention is then directed to propositional proofs, including indirect and conditional proofs. Basic quantification logic follows, beginning with quantificational formulas, translations, proofs, and refutations. The next step is quantificational logic employing identity and relational translations, and arguments. As time permits, a study of modal logic will follow. Two previous courses in philosophy recommended. Three credits.
PL-260	GOOD AND EVIL IN PHILOSOPHY, LITERATURE AND FILM	From our youth we have been nurtured on tales of good and evil; of the just overcoming the wicked; and of the ultimate victory of goodness. Yet is this just so much fantasy? Does good overcome evil in the real world? Are the just rewarded and the wicked punished? Even further, does evil really exist? Such are the questions we will address in this course. The course will be structured around a novel and some films on the theme of good and evil; philosophical texts will be used to elucidate the topics raised. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-261	CONFRONTING DEATH: LIT/PL/FILM	Just before facing execution, Socrates made the bold claim that philosophers do not fear death and even welcome it as a blessed release from bodily existence. Why do those of us who lack Socrates's courage fear death? What exactly are we afraid of? How do we live in the face of death? How do we confront it? This class explores such questions through the use of literature, philosophy, and film. Three credits.
PL-262	MUSIC AND THE SOUL	"Without music, life would be a mistake" (Friedrich Nietzsche). We lovers of music know exactly what Nietzsche means here: we have been moved, disturbed, made joyous, or despairing, by the muse of melody and poetic verse. Why does music have this effect on us? What does it MEAN for us? Can music be good or bad for us? Is there a moral aspect to creating music or to listening to it? Such are the questions that inspire this course. Through an examination of philosophical accounts of music, and, of course, by listening deeply to various genres of music, we will attempt to answer them. And, if our questions are not answered, we will move forward in our lives to search for music and philosophical ideas that can help us answer them. Prerequisite: 3 credits in philosophy or instructor permission. Three credits.
PL-270	POLITICAL PHILOSOPHY	A survey of the history of reflection on fundamental political goods by both classical and modern writers. Readings will normally include, but not be limited to, material from a subset of these philosophers: Plato, Aristotle, St. Thomas Aquinas, Machiavelli, Hobbes, Locke, Rousseau, and Marx. Common themes may include the nature of law, justice and rights, the social contract, purposes and justifiability of economic institutions, cultural influences on the identification and attainment of social values, the possibility of political objectivity or neutrality, and the like. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-271	CATHOLIC POLITICAL THOUGHT	Catholicism has a long tradition of political inquiry that has made many important theoretical and practical contributions to the way we live. From a philosophic perspective, it bears a close resemblance to ancient political philosophy yet diverges in significant ways from modern political philosophy. This divergence raises an important practical question: How can Catholics in America reconcile faith and citizenship? This class is designed to answer that question. To do so we will read important contributors to the Catholic intellectual tradition, contemporary authors, as well as political rhetoric in America. Prerequisite:PL101. Cross-listed with PS-261. Three credits.
PL-280	THOMISTIC PHILOSOPHY	The works of Thomas Aquinas are generally regarded as the highwater marks of Medieval Scholasticism, and they continue to have far-reaching effects on both philosophy and theology. In this course the students will read selections from some of Aquinas'+G831 major works organized, in general, along the lines developed in the Summa Theologiae. Some of the topics to be considered from a philosophical perspective are the following: philosophy and theology; the existence of God, the attributes, names, and powers of God; predestination; the human end, human acts, habits, virtues and vices; law in general and the various kinds of law. Three credits.
PL-303	EASTERN THOUGHT	This course is designed to provide an overview of the basic teachings and historical development of major streams of Eastern thought including Confucianism, Daoism and Buddhism. Emphasis will be placed on a comparative approach, noting the complex historical and conceptual relationships to be found between and within the systems. The course will also examine the congruencies (as well as the disparities) of these approaches with important developments in Western thought. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-305	SPECIAL TOPICS IN PHILOSOPHY	These courses provide an opportunity for faculty and students to work together in advanced study in areas of particular expertise and interest. Accordingly, the specific topic of these courses will vary from semester to semester. For the current topic, students should consult with the department or Office of the Registrar. Prerequisite: two courses in philosophy or the permission of the instructor. Three credits.
PL-306	NIETZSCHE	This course will examine various aspects of the thought of Friedrich Nietzsche, his critical reception and ongoing influence. For the specific themes to be addressed during a given semester, please consult with the instructor. Prerequisite: two courses in philosophy or the permission of the instructor. Three credits.
PL-350	INDEPENDENT STUDY--PHILOSOPHY	Independent study is primarily intended for the student who has advanced past a basic understanding of the field. It provides an opportunity to explore in greater depth and sophistication a specific philosophical topic or question of the student's choice. Selection of the topic of study is initiated by the student, while the structuring of the course is done in consultation with the instructor. Variable credit.
PL-440	SENIOR CAPSTONE EXAM	In this independent study course the student will work with a faculty member in the department who will serve as his or her advisor. The student will meet periodically with this advisor to aid in his or her preparation for the exam. These meetings may include practice exams. The exam itself will take place towards the end of the semester. It will be an oral examination, usually lasting about 60 minutes, conducted by the student's advisor and at least one other member of the philosophy department. Should the student's performance be unsatisfactory, she or he will be given one other opportunity to re-enroll in the course and pass the exam. PL 440 is taken in the second semester before graduation. P/F. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PL-450	SENIOR THESIS	In this independent study course the student works closely with a faculty advisor to fully develop the capstone project in philosophy, the Senior Thesis. This process prepares the student for work beyond the undergraduate, developing the skills of independent scholarship: informed philosophical research, skillful analysis, thoughtful synthesis and fluent written work. PL 450 is taken in the second semester before graduation. Three credits.
PL-500	PHILOSOPHY -- INTERNSHIP	The internship is an opportunity for philosophy majors and minors to gain work experience, and discern a future career path. In consultation with a faculty member in the department, a suitable employer will be found and a determinate number of hours established for the semester. For every 45 hours of work, the student will receive one course credit, with a maximum of three per semester. The student must submit a summary of the work done and reflection on the experience at the end of the semester. This course may be repeated, but this course does not count toward the fulfillment of the major or minor requirements. One to Three credits. Majors and minors only.
PH-00X	PHYSICS EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
PH-100	PHYSICS SEMINAR	Discussions of topics in contemporary physics. One credit.
PH-111	GENERAL PHYSICS I	This is the basic course for those majoring in the physical and biological sciences, mathematics and engineering. Vector methods, mechanics, and energy are studied. Prerequisite: MA 111. Offered fall semester. Three credits.
PH-112	GENERAL PHYSICS II	A continuation of PH 111. Electricity and magnetism, wave motion, optics and topics from modern physics are covered. Prerequisite: PH 111. Offered spring semester. Three credits.
PH-113	GENERAL PHYSICS I LABORATORY	Laboratory to accompany PH 111. Laboratory experiments include applications to kinematics, Newton's Laws, and energy. One credit.

COURSE	TITLE	COURSE DESCRIPTION
PH-114	GENERAL PHYSICS II LABORATORY	Laboratory to accompany PH 112. Laboratory experiments include applications to optics, electricity, magnetism, and wave mechanics. One credit.
PH-211	MODERN PHYSICS I	A survey of atomic and nuclear physics including quantum physics. Prerequisites: PH 112, MA 114. Must be taken with PH 213. Offered fall semester. Three credits.
PH-213	MODERN PHYSICS I LABORATORY	Laboratory to accompany PH 211. Laboratory experiments stress basic subjects such as atomic and classical scattering, the particle and wave nature of both radiation and matter, radioactivity, and spectroscopy. One credit.
PH-214	Intro to Fluids and Thermodynamics	Fluids covers the fundamentals leading to the continuity equation and Bernoulli's equation followed by a detailed study of these equations with applications. Thermodynamics covers a detailed study of the Kinetic Theory of gases and the first and second laws of thermodynamics with applications. Prerequisite: MA 111. Offered every spring. Three credits.
PH-215	THERMODYNAMICS	A study of the basic concepts of both classical and statistical thermodynamics. Topics include work, energy and entropy, the laws of thermodynamics, the Carnot cycle, heat engines, kinetic theory, and classical and quantum statistics. Prerequisites: PH 112 and MA 114. Offered every other spring. Three credits.
PH-221	CLASSICAL MECHANICS	A study of the fundamental principles of the motion of particles and rigid bodies, including vibrational motion, an introduction to the equations of Lagrange and Hamilton, and the two-body problem. Prerequisites: PH 112, MA 112. Offered alternate years. Three credits.
PH-223	MECHANICS: STATICS	Forces in a plane and in space. Equivalent systems of forces. Equilibrium of rigid bodies. Centroids and centers of gravity. Moments of inertia. Analysis of structures. Friction. Vectors used extensively. Prerequisites: PH 111 and MA 112. Cross-listed as MA 223. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PH-224	MECHANICS: DYNAMICS	Kinematics of particles. Kinetics of particles by: (a) force, mass and acceleration, (b) work and energy, (c) impulse and momentum. Kinematics of rigid bodies. Plane motion of rigid bodies by: (a) forces and accelerations, (b) energy and momentum methods. Mechanical vibrations. Vectors used extensively. Prerequisite: MA 223. Cross-listed as MA 224. Offered spring semester. Three credits.
PH-225	STRENGTH OF MATERIALS	Strength of Materials is an introductory materials science and engineering course. Students learn about the influence of the structure of materials and inherent defects in materials on ultimate properties and performance. The emphasis is on strength and failure of metals, ceramics, and polymers, but electrical and thermal properties are also considered. Case studies are used to illustrate many of the instructional modules. Prerequisites: CH 102, MA 111. Three credits.
PH-241	OPTICS	A study of the basic principles of physical optics. Studies in refraction, polarization, interference, and diffraction based on the theory of electromagnetic radiation. Prerequisites: PH 112, MA 114. Offered alternate years. Three credits.
PH-243	OPTICS LABORATORY	Laboratory to accompany PH 241. Topics include lenses, mirrors, and prisms, as well as reflection, refraction, polarization, interference, diffraction, and holography. One credit.
PH-244	ADVANCED LABORATORY	Experiments in various fields of physics focused on developing and applying a variety of common data acquisition and analysis skills. One credit.
PH-251	ELECTRICAL CIRCUITS AND ELECTRONICS	A study, with laboratory, of the fundamental aspects of electrical and electronic circuits. The course includes an overview of impedance, discrete semiconductor devices, operational amplifiers, sequential and programmable logic, memory devices, and microcontrollers. It also includes fabrication of printed circuit boards and soldering techniques for both through-hole and surface-mount components. Prerequisites: PH 112 and MA 112. Offered fall semester. Two credits.

COURSE	TITLE	COURSE DESCRIPTION
PH-252	ELECTROMAGNETIC FIELDS	An intermediate course in electromagnetic field theory. Extensive use is made of vector calculus. The differential forms of Maxwell's equations are developed and investigated. Prerequisites: PH 111, PH 112, MA 111, MA 112, MA 113 and MA 114. Offered every other spring. Three credits.
PH-261	ELECTRONICS	Covers the fundamental aspects of electronic circuits. Topics include voltage and current sources, measurement techniques, the principles and application of impedance, Kirchhoff's Rules, Thevenin's Theorem, semiconductors, solid-state devices, amplifiers and feedback, boolean algebra, digital logic, Karnaugh Maps, programmable logic, FPGA's, memory, and microcontrollers. Extensive use is made of Electronic Design Automation (EDA) software to allow students to follow circuit design from circuit analysis and schematic diagram to finished printed circuit board artwork. Must be taken in conjunction with PH 263 Electronics Laboratory. Prerequisites: PH 112 and MA 112. Offered fall semester. Three credits.
PH-263	ELECTRONICS LABORATORY	Laboratory course to accompany PH 261 Electronics. Provides hands-on experience with real world circuits along side the more theoretical development presented in PH 261. Includes measurement techniques, passive filters, transistor and operational amplifiers, combinational and sequential digital logic, and microcontrollers. Also includes design and fabrication of printed circuit boards and soldering techniques for both through-hole and surface-mount components. Co-requisite: PH 261. One credit.
PH-311	MODERN PHYSICS II	Covers the study of the solution of the Schrödinger equation for both one and three dimensional systems, the spin and orbital angular momentum for both one- and multi-electron atoms, quantum statistics, the strong interaction and Yukawa potential, and an introduction to elementary particles. Prerequisite: PH 211. Offered every other spring. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PH-322	QUANTUM MECHANICS	Quantum mechanics developed from a review of modern physics. Topics include the eigenvalue problem, expectation values, particle in a box with applications in the areas of expectation values and transitions, Hilbert spaces, superposition, commutators, symmetries and conservation laws, and angular momentum (spin, orbital) operators and eigenstates. Prerequisite: PH 211. Offered alternate years. Three credits.
PH-341	CONDENSED MATTER PHYSICS	Covers topics including crystal structure, Bragg scattering, scattering amplitude and form factors, the reciprocal lattice, lattice vibrations and quantization, phonon heat capacity, free electron gas, and energy bands in solids (Brillouin zones, Bloch functions, and the Kronig-Penney model). Prerequisite: PH 211. Offered every other spring. Three credits.
PH-350	INDEPENDENT STUDY--PHYSICS	May be repeated. Variable credit.
PH-360	HONORS COURSE	The subject and content will be specified when offered.
PH-370	MATHEMATICAL PHYSICS	An advanced course in the mathematical analysis of physical systems. Methods using linear algebra, complex variables, Fourier analysis, Laplace transforms, and other special functions are studied. Analytical software, such as Mathematica, may be used. Prerequisites: PH 111, PH 112, PH 213, and MA 114. Offered every other spring. Three credits.
PH-381	RESEARCH	Investigation and experimentation or an approved internship leading to the completion of the required senior thesis. One credit.
PH-550	PHYSICS INTERNSHIP	Work experience program extending the learning experience beyond the college into the world of work. Students are employed in an area related to their academic endeavor. Academic credits are awarded according to the extent of the work experience. The purpose of the program is to integrate academic studies and employment activities. May be repeated. Variable credit.
PS-00X	POLITICS EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.

COURSE	TITLE	COURSE DESCRIPTION
PS-100	PRINCIPLES OF AMERICAN POLITI	<p>Politics raises fundamental questions: how ought we, as human beings, to live? Put another way, what is the nature of good and evil, right and wrong, justice and injustice? Implicit in these questions, at the practical level of government, are further questions as to how we in fact live, how we should organize ourselves in communities, and who ought to govern in the communities in which we, as political beings, dwell. The American constitutional order represents one set of answers to these fundamental questions. This course examines the genesis of this constitutional order through a close study of the writings, speeches, and deeds of those who were responsible for its creation. It also elucidates the relationship of the regime to the larger tradition of Western political thought. The course will aid students in understanding the American regime as its founders understood it and in evaluating this understanding. The course will also pay attention to the extent to which the regime as it currently operates either does or does not reflect this original understanding. Offered every semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PS-100F	PRINCIPLES OF AMERICAN POLITICS	<p>FIRST YEAR SEMINAR. Politics raises fundamental questions: how ought we, as human beings, to live? Put another way, what is the nature of good and evil, right and wrong, justice and injustice? Implicit in these questions, at the practical level of government, are further questions as to how we in fact live, how we should organize ourselves in communities, and who ought to govern in the communities in which we, as political beings, dwell. The American constitutional order represents one set of answers to these fundamental questions. This course examines the genesis of this constitutional order through a close study of the writings, speeches, and deeds of those who were responsible for its creation. It also elucidates the relationship of the regime to the larger tradition of Western political thought. The course will aid students in understanding the American regime as its founders understood it and in evaluating this understanding. The course will also pay attention to the extent to which the regime as it currently operates either does or does not reflect this original understanding. Four credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PS-100H	PRINCIPLES OF AMERICAN POLI	<p>HONORS COURSE. Politics raises fundamental questions: how ought we, as human beings, to live? Put another way, what is the nature of good and evil, right and wrong, justice and injustice? Implicit in these questions, at the practical level of overnment, are further questions as to how we in fact live, how we should organize ourselves in communities, and who ought to govern in the communities in which we, as political beings, dwell. The American constitutional order represents one set of answers to these fundamental questions. This course examines the genesis of rhis constitutional order through a close study of the writings, speeches, and deeds of those who were responsible for its creation. It also elucidates the relationship of the regime to the larger tradition of Western political thought. The course will aid students in understanding the American regime as its founders understood it and in evaluating this Understanding. The course will also pay attention to the extent to which the regime as it currently operates either does or does not reflect this original understanding. Offered every semester. Three credits.</p>
PS-135	CLASSICAL POLITICAL THOUGHT	<p>A survey of the basic principles of political philosophy from the Western tradition. This course examines fundamental ideas about the political good suggested by classical philosophers. Readings will normally include selections from Plato, Aristotle, Augustine, and Aquinas. Offered fall semester. Three credits.</p>
PS-136	MODERN POLITICAL THOUGHT	<p>A survey of the basic principles of political philosophy from the Western tradition. This course examines fundamental ideas about the political good suggested by modern philosophers. Readings will normally include selections from Machiavelli, Hobbes, Locke, Rousseau, Kant, Hegel, and Nietzsche. Recommended: PS 135. Offered spring semester. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PS-161	TOPICS IN POLITICAL ECONOMY	This seminar style course offers a philosophical and historical analysis of topics in political economy. Topics vary from semester to semester, but might include primary source readings from David Hume, Adam Smith, Ludwig Von Mises, Friedrich Hayek, Henry Hazlitt, or Milton Friedman. Offered every semester. May be repeated. One credit.
PS-170	TRIAL ADVOCACY	If you want a multifaceted learning experience outside the traditional classroom setting, a chance to develop the confidence to make compelling arguments and present yourself in a confident manner, and enjoy intellectual competition in a real life setting, our new, expanded Trial Advocacy Program is for you. Our excellent Mock Trial program gives students from all majors and classes the opportunity to challenge themselves in ways generally not available to college students anywhere. The new Trial Advocacy class will meet regularly and, for the first four weeks, students will receive intense training in the basic skills of advocacy from Professor Bruce Antkowiak, a politics graduate of Saint Vincent College and Harvard Law School. Professor Antkowiak has tried many cases and taught trial advocacy in law school for ten years before coming to Saint Vincent. Students will then participate on one or more teams in Trial Advocacy competitions around the country with Attorney Lee Demosky coaching the lead team. The course can be taken for graded credit and students can earn up to four credits of Trial Advocacy over their time at Saint Vincent. Direct any questions about the Program to Professor Antkowiak at bruce.antkowiak@email.stvincent.edu . Every semester. One credit.

COURSE	TITLE	COURSE DESCRIPTION
PS-200	PROFILES IN STATESMANSHIP	Drawing on classical and modern sources in political philosophy, political biography, and literature, this course will examine the ideas and actions of great statesmen. Confronting the most complex and often perilous circumstances imaginable, these political and military figures altered the direction of history. This course might include readings by or about Pericles, Aristotle, Cicero, Plutarch, Charlemagne, Shakespeare, Elizabeth I, Gibbon, Burke, Washington, Hamilton, Webster, Lincoln, Marshall, MacArthur, Churchill, Roosevelt, and Thatcher, among others. Questions as to the nature of statesmanship - its practices, principles, and virtues - as well its place in democratic times, will be raised. The course should be of particular interest to anyone concerned with leadership and the elements of human greatness, including students of politics, business, history, philosophy, English, psychology, and theology. Three credits.
PS-222	STATE AND LOCAL GOVERNMENT	The structures, functions, and relationships of the various units of state and local government are presented, and their linkage to the federal government is analyzed. Important policy issues are analyzed and office-holders are invited to speak in class. A term paper on a local or state unit or function, or a profile of an officeholder, will be required. Offered spring semester. Three credits.
PS-242	INTERNATIONAL POLITICS	This course studies the process of international relations from a variety of perspectives. The three levels of international politics are analyzed; the different state and non-state actors are examined, the balance of power concept and its alternatives are addressed, and the future of the national state system is examined. Several major models commonly used to understand the international system are explored. Not recommended for first-year students. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PS-261	CATHOLIC POLITICAL THOUGHT	Catholicism has a long tradition of political inquiry that has made many important theoretical and practical contributions to the way we live. From a philosophic perspective, it bears a close resemblance to ancient political philosophy yet diverges in significant ways from modern political philosophy. This divergence raises an important practical question: How can Catholics in America reconcile faith and citizenship? This class is designed to answer that question. To do so we will read important contributors to the Catholic intellectual tradition, contemporary authors, as well as political rhetoric in America. Prerequisite:PL101. Cross-listed with PL-271. Three credits.
PS-262	TOPICS IN POLITICAL PHILOSOPHY	This seminar style course concentrates on a particular topic in political philosophy. Topics vary from year to year, and typically include an in-depth examination of a particular work, philosopher, or idea of central significance to the development of political thought or practice. May be repeated. Three credits.
PS-263	TOPICS IN POLITICAL PHILOSOPHY	This seminar style course concentrates on a particular topic in political philosophy. Topics vary from year to year, and typically include an in-depth examination of a particular work, philosopher, or idea of central significance to the development of political thought or practice. May be repeated. Three credits.
PS-290	INSTITUTIONS	This course examines the institutions (i.e., Congress, the Presidency, and the Courts) of American government in the order that they are presented in the United States Constitution. The Constitution itself, thus, serves as the guide. Students read relevant chapters from The Federalist in order to gain a full appreciation of the aims of the founders in terms of the design and intent of the governing institutions. Students delve into a good deal of relevant literature, including both primary and major secondary sources. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PS-310	PUBLIC OPINION ELECTIONS	This course examines the fundamental roots and role of public opinion in America, and its influence on politics and public policy. This influence is examined by addressing elections and the operation of the party system, as well as the use of polls and the role of the media. Three credits.
PS-336	AMERICAN POLITICAL THOUGHT	A study of important themes and/or developments in American political thought from the Civil War to the present. A key theme will be the shift from Madisonian constitutionalism to the progressivism of the 20th century. The course examines the political ideas that facilitated that shift. Subjects addressed include the nature of political equality, social Darwinism, pragmatism, progressivism and its critics, constitutional interpretation, and the "Reagan Revolution." Offered fall semester. Three credits.
PS-339	CONSTITUTIONAL LAW: NATIONAL POWERS	An analysis of the historical development of American constitutional law with respect to powers of the national government. U.S. Supreme Court decisions regarding issues of federalism, separation of powers, executive authority, national security and war, the commerce clause, etc. will be considered. Debates in constitutional interpretation and the intended role of the Supreme Court may also be examined. Offered fall semester. Three credits.
PS-341	GLOBAL TERRORISM	This course analyzes the growing phenomena of terrorism. Students examine diverse perspectives from governments, scholarly experts and the terrorists themselves. The course covers the source and growth of terror, tactics of terror, key terrorists incidents, specific terrorist groups and profiles of key leaders within groups. Students study and discuss government policy related to terror including how the U.S. and other countries counter terrorism. Finally, the course examines the social and political problems associated with terrorism. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PS-343	COMPARATIVE POLITICS	This course offers an examination of different political systems and how they compare with each other. Students study how varying forms of government affect the lives of citizens and how they force nations to interact with each other. Students are asked to select one of more systems for closer analysis and report their research in a written paper. Students also study the major problems facing the international community and how each system may approach solutions to them. Three credits.
PS-345	DOMESTIC PUBLIC POLICY	This course examines the nature of the administrative state and the public policy process, and considers the political principles, interests, and empirical evidence behind differing policy positions. Readings might be from social theorists, public policy advocates, politicians, commentators and scholars. Offered spring semester. Three credits.
PS-369	CONSTITUTIONAL LAW: CIVIL RIGHTS AND LIBERTIES	An analysis of federal court decisions dealing with Bill of Rights guarantees, with special emphasis on U.S. Supreme Court rulings. First Amendment issues - free speech, freedom of religion, and freedom of associations, as well as 14th Amendment issues - equal opportunity, voting, and civil rights legislation are explored. Federal policies and politics in this area are analyzed. Offered spring semester. Three credits.
PS-375	INTERNATIONAL LAW	This course concentrates on international law and policy, including international organizations and transnational governance. The course examines treaties including the GATT and the WTO, and review specific trade laws and case studies considering the relationship between trade law and other regulatory areas, including product standards and intellectual property protection. This course also addresses U.S. trade policy and trade agreements, unfair trade practices, political restrictions on trade, and national security implications of exporting technology. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PS-390	ENVIRONMENTAL LAW AND POLICY	A survey of the history and present status of laws seeking to establish acceptable safety levels for air, water, chemicals, and land use. Methodologies of standard-setting, alternate policies, financial costs, and future developments will be discussed. Offered fall semester. Three credits.
PS-440	ADVANCED CONSTITUTIONAL LAW	The course is meant to give you not only an understanding of some of the critical issues of Constitutional Law but to teach you how to argue those issues in a proper legal context. If successful, the course will give you a true sense of how to analyze legal issues and present them in a thoughtful, authoritative way. While you will learn some of the theory of Constitutional Law, you will learn that the constitution is not just a statement of political theory, it is a law to be applied in courts to help real people face real problems of dealing with the government. Three credits.
PS-470	GEORGE WASHINGTON FELLOWSHIP	The George Washington Fellows Program is named after our nation's first president in order to concentrate on the theme of citizenship. Washington emphasized in his writings and addresses that the success of the new American republic would depend upon the nation's ability to become a sacred union of citizens. The Program seeks to attract students interested in scholarly inquiry into the key questions of American citizenship, paying careful attention to the duties and responsibilities of individuals in a free, wellordered society. Applications for projects in the following areas will be considered: American political thought, American economic thought, political or economic thought generally, American culture and religion, and American constitutionalism. Zero credit.
PS-480	SENIOR THESIS	This course facilitates and supervises the writing of the senior thesis, which is the culminating project for political science majors. Special care will be taken to aid students in utilizing their research and writing skills so that they may produce a high quality thesis. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PS-500	INDEPENDENT STUDY--POLITICAL SCIENCE	Such study involves research in areas of special interest to students, under faculty supervision. Offered to those students whom the department judges ready for such responsibility. May be repeated. Variable credit (not to exceed three credits per semester).
PS-550	POLITICS INTERNSHIP	Internships constitute a practicum to supplement academic learning. See the description above. The number of credits and the hours involved vary depending on the nature of the internship. Please see the Career Development Center staff for current procedures that must be followed. Departmental approval and supervision must also be secured. Pass/Fail option only. Students are subject to the McKenna School's Student Guide to Internship Procedures and Requirements. See the Business Administration section of this Bulletin for a detailed description. May be repeated. Variable credit up to three credits.
PY-00X	PSYCHOLOGY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
PY-100	INTRODUCTION TO PSYCHOLOGICAL SCIENCE	Introduction to the field of psychology-the scientific study of mind, body, and behavior. Topics are chosen by the instructor and may include research methods, biological bases of behavior, personality, learning, memory, social behavior, development, and behavior disorders. Offered both semesters. Three credits.
PY-100F	INTRO. TO PSYCHOLOGICAL SCI.	FIRST YEAR SEMINAR. Introduction to the field of psychology - the scientific study of mind, body, and behavior. Topics are chosen by the instructor and may include research methods, biological bases of behavior, personality, learning, memory, social behavior, development, and behavior disorders. Four credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-115	EDUCATIONAL PSYCHOLOGY	This course is designed to introduce students to areas of psychology relevant to educational settings. The primary focus of the course is on psychological theory and research and their application to applied educational settings. Topics include learning and motivation; students'+G904 social, cognitive, and emotional development; the construction and use of tests; and methods of classroom management. Offered both semesters. Three credits.
PY-201	APPLIED STATISTICS AND RESEAR METHODS	This course is designed primarily for Education majors and provides students with a basic understanding of statistical concepts and methods of inquiry as they are used in the field of education. Topics include measures of central tendency and dispersion, properties of the normal curve, statistical significance, sampling, correlation, and significance tests. Students are also introduced to critical evaluation of psychological and educational research, the social and political implications of statistical data, and basic quantitative and qualitative research designs applicable to the teaching profession. Although students are required to master statistical and research concepts, primary emphasis is placed on practical applications in educational settings. Offered every spring. Three credits.
PY-203	STATISTICS I	This first course in statistics introduces students to some of the basic statistical procedures that are most commonly used in the social sciences, including measures of central tendency and variability, correlation and regression analysis, probability, logic of hypothesis testing, and t tests. Students also learn to perform statistical analyses on the computer using SPSS. Offered every fall. Three credits.
PY-204	STATISTICS II	A continuation of the first course in statistics, this course introduces more advanced procedures including analysis of variance and multiple regression. Nonparametric statistical tests such as the chi-square test are also covered. As in the first course in statistics, computer application using SPSS is further developed. Prerequisite: PY 201 or PY 203 or equivalent course. Offered every spring. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-212	CHILD DEVELOPMENT	This course examines human development from conception to the beginning of adolescence. The topics span cognitive, social, emotional, and physical development. In addition to the major theories and methods that have shaped the field of child development, we will become familiar with today's leading issues affecting children in family, school, and society. Across topics, we focus on developing the skills to apply knowledge in service of children in the real world. Prerequisite: PY 100 or PY 115. Offered fall semester. Three credits.
PY-214	ADOLESCENT DEVELOPMENT	This course examines biological, cognitive, and social development during adolescence. Covering roughly the developmental period from puberty through the late teens or early twenties, students will study family and peer relationships, sexuality, moral development, career issues, and various psychological and behavioral problems as they pertain to adolescents. Prerequisite: PY 100 or PY 115. Offered spring semester. Three credits.
PY-216	PSYCHOLOGY OF ADULT DEVELOPMENT	This course focuses on the dynamic processes of growth and development in adulthood. Such issues as self-concept, intimacy, marriage, sex roles, work, love, friendship, and the family are examined. Prerequisite: PY 100. Offered alternate fall semesters. Three credits.
PY-218	LIFE-SPAN DEVELOPMENT	This course examines human development from conception until death. The course is an introduction to the science of lifespan psychology emphasizing physical, psychological, interpersonal, and cognitive development. These issues are explored using scientific research, theoretical perspectives, and practical applications. Offered variably. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-219	INTRODUCTION TO COUNSELING	This course provides an introduction to the skills, methods, and procedures of counseling and psychotherapy, including effective interaction and communication between therapist and client and the development of student self-awareness and self-assessment. The course also provides an overview of the major theoretical models of individual and family therapy, including psychodynamic, cognitive-behavioral, Gestalt, and humanistic-existential models. Prerequisite: PY 100. Usually offered fall semesters. Three credits.
PY-220	THE SEARCH FOR MEANING: PSYCHOLOGY OF RELIGION	This course is designed to assist students to believe developmentally and meaningfully in themselves and in their God during our Post-Modern era. An existential phenomenological approach will address contemporary issues: humans' search for meaning, 21st century interpretations of religion and spirituality, evil, humans' experience of God and the Spirit, social justice, and love and human sexuality. Three credits.
PY-225	BOXING: MIND & CULTURE	Whether for glory, money, respect, or other motivations lying deep within the human psyche, there has rarely been a time when man did not engage in gloved (or ungloved) combat against his fellow man. Spanning the fields of history, media, and the social sciences, this course provides students with an interdisciplinary study of the sport of boxing. Students will examine how the ring has served as a stage upon which the larger issues of race, nationality, and culture have been contested. The course will review the business of boxing as well as its dangers, including the impact of boxing on neuropsychological functioning and how fighters, culture, and the sport have responded to the tragedy of ring deaths. Finally, students will examine how the popularity of boxing in film speaks to its ability to capture fundamental truths of the human condition. Summer Only. Three Credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-230	INTRO TO POSITIVE PSYCHOLOGY	This introductory course provides an overview of topics and concepts related to happiness and the positive aspects of human experience. From this perspective, psychology is a study of strengths, optimism, happiness, hope and other positive emotions and states of well-being. Positive psychology requires a focus on strength and in building the best things in life as in repairing the worst, and as much attention to fulfilling the lives of healthy people as to healing the wounds of the distressed. Summer only. Three credits.
PY-243	ABNORMAL PSYCHOLOGY	This course provides an introduction to psychological disorders. All major disorders are discussed in terms of specific symptoms, as well as the impact of the disorder on the individual's life. Etiology and treatment are also studied. Special emphasis is placed on understanding the diagnostic system used in developing a diagnosis. Prerequisite: PY 100. Offered variably. Three credits.
PY-244	THEORIES OF PERSONALITY	This course examines the development of the normal personality from a variety of theoretical perspectives (e.g., psychodynamic, social-learning, humanistic-existential). Special attention is given to the current status of the major theories of personality. The research methods employed within the various theoretical frameworks are critically reviewed. Prerequisite: PY 100. Usually offered fall semester. Three credits.
PY-251	FAMILY SYSTEMS	This course examines the major family systems theories, their assessment techniques, and associated therapies. Emphasis is placed on the features of a functional and dysfunctional family system. Separated/divorced, substance abusing, sexually abusing, and violent family systems and their dynamics are studied in detail. Prerequisite: PY 100 or PY 115. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-252	REHABILITATIVE TREATMENT SYSTEMS	This pre-professional course introduces students to rehabilitative treatment systems currently used by chemical dependency programs. Topics include case management and treatment planning with various populations (e.g., youth, families), ethical and legal issues, the role of family and workplace in treatment, and community resources. Prerequisites: SO 105 plus either PY 219 or PY 251. Offered fall semester. Three credits.
PY-260	SOCIAL PSYCHOLOGY	An introduction to both classic and contemporary social psychological research and theories. Topics include research methods, the self as a social construction, perceiving social others, persuasion, and aggressive and altruistic behavior. Prerequisites: PY 100 or SO 101. Offered every spring. Three credits.
PY-270	INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY	An introduction to the psychological and sociological perspectives of the behavior of individuals in work settings. The key theme of the course is to show how the broad principles of I-O psychology can be applied in situations at work. Topics include worker engagement, measuring motivation, productivity, group behavior, leadership, worker fairness, social networking and the workplace and achieving balance between work and non-work. Three credits.
PY-280	INTERPERSONAL & GROUP PROCESSES	This experiential-learning course is designed to introduce the art and skill of interpersonal communication and the organization and dynamics of groups to students interested in business management and in human services (e.g., psychology, education, and social work). This is primarily a skill-based course that emphasizes learning and practicing skills in active listening, open communication, problem-solving, and conflict management. The weekly format of the course includes a theory session followed by an experiential-learning laboratory. Enrollment is limited due to the nature of the experiential laboratory. Offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-290	PSYCHOLOGY AND EDUCATION FOR EXCEPTIONAL STUDENTS	This course examines the characteristics of exceptional individuals and effective educational strategies for their inclusion in the general education setting. All areas of exceptionality and the gifted and talented are included. Other topics include the legal bases for education of the exceptional, techniques for identification and assessment, adaptation of curriculum and materials, the use of technology, available educational and community resources for positive intervention for students and their families, and current developments in the field. Prerequisite: PY 115. Offered every semester. Three credits.
PY-300	DIRECTED RESEARCH	Students assist faculty and senior psychology majors with their various research projects. Depending on the status of the research at the time of enrollment, students might read the literature, assist in the development of research ideas, design empirical studies, collect, enter, and analyze data, and contribute to the preparation of manuscripts. P/F only. Prerequisites: Permission of instructor; recommended A- or higher in PY 203. Offered every semester. May be repeated. One credit.
PY-301	APPLIED RESEARCH AT FRC	Students assist faculty, staff, and student researchers at the Fred Rogers Center with various research and development projects in the area of children's development. Project focus areas include fostering children's social emotional development, improving quality of child development settings, and promoting meaningful use of technology in children's lives. Students may engage in video analysis, archival research, literature review, data collection and analysis, professional writing and communication. Prerequisites: Permission of instructor; recommended completing PY212 Child Development. Offered every semester. May be repeated. One credit.
PY-308	COGNITIVE PSYCHOLOGY	An analysis of human cognition, including such topics as attention, perception, pattern recognition, memory, language production and comprehension, problem solving, creativity, and artificial intelligence Prerequisite: PY 100 or PY 115; recommended PY 201 or PY 203. Offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-309	LEARNING	An overview of how and why human behavior changes in response to the environment. Although animal models of learning are discussed, emphasis is placed on how animal models help us understand the complexity of human behavior. Topics include Pavlovian and operant learning, stimulus control, biological preparedness, reinforcement contingencies, behavior modification, and token economies. Prerequisite: PY 100 and PY 201 or PY 203. Offered spring semester. Three credits.
PY-320	FORENSIC PSYCHOLOGY	A survey of topics in forensic psychology, a specialized subfield involving the interface between psychology and law. Topics include forensic assessment, civil competence, eyewitness testimony, criminal responsibility, psychology of criminal behavior, criminal profiling, jury issues, expert witness issues, police issues, and career paths in forensic psychology. Prerequisite: PY 100; recommended PY 243. Offered variably. Three credits.
PY-322	HEALTH PSYCHOLOGY	This course introduces students to affective, behavioral, and cognitive influences on health. The effects of stress, eating behaviors, substance abuse, specific diseases/disorders, and the patient/health care provider relationship on overall health will be investigated. The biological basis of health, and health-improving interventions (behavioral and biological) will be recurrent themes throughout the course. Prerequisite: PY 100. Offered variably. Three credits.
PY-331	BIOLOGICAL PSYCHOLOGY	This course introduces students to the ways in which behaviors are based on biological processes occurring within our bodies. The major topics of the course include an introduction to the functioning of the nervous and hormonal systems, sensory processes, the effects of drugs on behavior, motivation and emotion, learning and memory, and biological bases for psychological disorders. Prerequisite: PY 100. Offered both semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-341	RESEARCH METHODS IN PSYCHOLOGICAL SCIENCE	The purpose of this course is to introduce students to the various tactics of performing research within the field of psychology. Although the emphasis is on psychological research methods, the procedures developed are applicable to all areas of scientific research-social, biological and physical. Course work includes hands-on experience conducting psychological research, analyzing data, and reporting results. Prerequisites: Either PY 203 and PY 204 or PY 201. Offered both semesters. Four credits.
PY-350	INDEPENDENT STUDY--PSYCHOLOGY	May be repeated. Variable credit.
PY-370	SEMINAR: ETHICAL ISSUES IN PSYCHOLOGY	This upper division seminar course examines the prominent professional and ethical issues in psychology. Issues primarily surround work with patients; however, research and teaching issues are also covered. This is a seminar course in which students read and discuss articles from scholarly journals. Prerequisite: psychology major. Offered fall semester. Three credits.
PY-371	SEMINAR: COLLABORATIVE RESEARCH ON A SPECIAL TOPIC	Students read and discuss primary sources on a topic selected by the instructor and then collectively design a research project. The final paper for the course is a collaborative research proposal with pilot data and preliminary analyses. Completion of the entire project is expected to yield a publication-quality manuscript or a professional conference presentation. Students interested in continuing their involvement in the research beyond PY 371 may do so through PY 300 Directed Research. Prerequisites: PY 100, PY 203, and Instructor's permission. Other prerequisites may be recommended depending on the semester's topic. Offered variable spring semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-373	WHAT WOULD FRED ROGERS DO?	<p>How do we change the world and make it a better place for children? This is the central question for this interdisciplinary seminar. We will examine the science and practice of creating and sustaining social change from across the disciplines of psychology, education, public health, media, and communication. The work and legacy of Fred Rogers, one of the most influential advocates for children in our time, will be an organizing theme of the seminar. This course is intended for students in the Children's Studies Minor as well as students in other academic majors with a strong interest to serve children. The class activities include learning and discussing ideas from different fields, examining case studies, and working in teams to create and critique social change concepts. The class will be hosted at the Fred Rogers Center. Three credits.</p>
PY-374	SEMINAR: PERSONALITY THEORIES	<p>This upper division seminar course examines the major theories of personality. Students read and discuss articles from scholarly journals, as well as selected original works from prominent personality theorists. Topics include psychoanalysis, behaviorism, humanism, and trait theories, in addition to disorders of personality. Prerequisite: Junior or senior psychology major and permission of instructor. Offered spring semester. Three credits.</p>
PY-375	SEMINAR: MYTH-BUSTING IN PSYC	<p>Numerous studies have shown that many Americans hold beliefs about human behavior that are not true. For example, even well-educated individuals believe that we only use 10% of our brain. Although evidence refuting these myths is plentiful, these beliefs have become entrenched in modern society. By reading and discussing primary and secondary sources students will explore why the myths are not true, prevalence rates for belief in the myths, and how they may have come about and persisted. Offered variably. Three credits.</p>

COURSE	TITLE	COURSE DESCRIPTION
PY-378	SEMINAR: COGNITIVE PSYCHOLOGY	In this upper division seminar course, students read and discuss articles from scholarly journals and complete laboratory demonstrations. The course examines special topics in the field of cognitive psychology such as memory errors, divided attention, and problem solving. Prerequisite: PY 100 and junior or senior status and permission of instructor. Offered spring semester. Three credits.
PY-381	EDUCATIONAL TESTING	This course is designed for Psychology Education majors and Elementary Instruction majors and provides an overview of psychological and educational testing of preschool and school age children and youth. Topics include the history, issues, and problems of psychological and educational assessment; test design and evaluation; an overview of tests of intelligence, academic achievement, interests, and aptitude; ecological assessment of classroom behavior; and a review of ethical issues. Consideration will be given to assessing the needs of exceptional children and ways of critically reviewing such assessment for purposes of educational decision-making. Prerequisite: PY 201 or PY 203. Offered fall semester. Fee. Three credits.
PY-382	PSYCHOLOGICAL ASSESSMENT	This course provides an introduction to the field of psychological assessment. Assessment includes a variety of psychological tests and other approaches designed to gain a better understanding of the human person. Includes personality and intellectual testing, as well as standardization and construction. Prerequisite: PY 203. Offered variably. Fee. Three credits.
PY-390	HISTORY & SYSTEMS OF PSYCHOLOGY	An examination of the major systems and trends in the history of psychology. Special attention is given to the various schools of philosophical thought that preceded the emergence of psychology as a science. Although the contributions of particular psychologists are considered, the primary emphasis is on the major systems or schools of thought that have influenced the development of psychology as a science. Prerequisite: Twelve previous credits in psychology. Offered alternate fall semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
PY-401	CAPSTONE: RESEARCH REVIEW AND ANALYSIS	In this upper division seminar course, students read and discuss articles from scholarly journals and complete laboratory demonstrations. The course examines special topics in the field of cognitive psychology such as memory errors, divided attention, and problem solving. Prerequisite: PY 100 and junior or senior status and permission of instructor. Offered spring semester. Three credits.
PY-405	CAPSTONE: RESEARCH THESIS I	Junior psychology majors design an empirical study and submit an APA-style research proposal and IRB application. Students conduct an extensive review of the literature, synthesize existing theory and research to build a rationale for their study, develop specific hypotheses, devise appropriate methodology and statistics, and obtain or construct supporting materials. Prerequisites: PY 341, 3.5 Psychology GPA, and authorization by the Department Chair. Offered spring semester. Three credits.
PY-406	CAPSTONE:RESEARCH THESIS II	In this follow-up to Research Thesis I, students conduct the empirical study that they designed in PY 405. Students recruit participants; collect, analyze, and interpret data; compose the results, discussion, tables, and figures; and revise all earlier portions of the paper to produce an empirically based APA-style research thesis. Prerequisite: PY 405. Offered fall semester. Three credits.
PY-499	PROJECT IN CHILDREN'S STUDIES	This one-credit course will serve as a capstone experience for students completing the minor in Children's Studies. Students will work with the director to develop their own individualized project corresponding with their own interests. For instance, students may choose to complete a comprehensive research paper related to childhood. Another option may be completion of an internship experience working with children or with issues pertaining to children. Students may also propose their own idea for a capstone project to the program director. One credit.

COURSE	TITLE	COURSE DESCRIPTION
PY-550	PSYCHOLOGY INTERNSHIP	Students engage in professional work experience in the community that complements and strengthens academic learning. The number of credits earned and the academic requirements are variable, depending on the duration of the experience. Students may or may not receive monetary compensation depending on the organization. Students must receive approval from the faculty internship advisor and complete all paper work with the Career Center before registering for or beginning the internship. May be repeated. Offered both semesters. Variable credit.
SO-00X	SOCIOLOGY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
SO-101	INTRODUCTION TO SOCIOLOGY	This course is an overview and survey of the scientific study of human interactions in society. The course explores the basic concepts that are the foundation of the discipline. Students are introduced to research methods, theoretical perspectives, culture, socialization, social interaction, deviance, and inequality. Typically offered every semester. Three credits.
SO-101F	INTRODUCTION TO SOCIOLOGY	FIRST YEAR SEMINAR. This course is an overview and survey of the scientific study of human interactions in society. The course explores the basic concepts that are the foundation of the discipline. Students are introduced to research methods, theoretical perspectives, culture, socialization, social interaction, deviance, and inequality. Typically offered every semester. Four credits.
SO-105	CHEMICAL DEPENDENCY	The course provides an overview of addictive disorders and investigates three models of dependency: the psychosocial, the bio-medical, and the socio-cultural. Emphasis is on a holistic understanding of the confounding variables of the phenomenon of addiction. Topics include the individual's descent into dependency, the impact of chemical dependency on the family, drugs on the streets of our local communities, cross-cultural drug wars, and prevention, intervention, and treatment strategies. Typically offered Fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SO-106	SOCIOLOGY AND GLOBAL ISSUES	This course is an introduction to sociological perspectives on globalization and the global dimensions of problems facing contemporary society. The course will review globalization theories and trends, and the processes and structures of globalization. While the emphasis is on theoretical frameworks and data from sociology, this course takes an interdisciplinary approach to the issues surrounding globalization. Prerequisite: SO 101 recommended. Typically offered Fall semester. Three credits.
SO-161	ENVIRONMENTAL SOCIOLOGY	This course is designed as an introductory course on environmental sociology. The course will examine the varied forces and perspectives that have an impact on environmental policy making. Subject areas include environmental policy-making, the concepts of ecology and sustainability, renewable and nonrenewable resources, pollution, energy policy, and global environmental degradation. Prerequisite: SO 101 recommended. Typically offered every other fall semester (even-numbered years). Three credits.
SO-200	RACE AND ETHNICITY	This course explores the causes and consequences of prejudice and discrimination in America. We will connect the historical emergence of racial and ethnic groups to the social, cultural, political, and economic forces that shaped their experiences. The continuing role of these social forces will be highlighted in order to nurture a sociological vision of contemporary minority group life. The course will also accent relations between racial and ethnic groups and the evolution of social movements that resist oppression. Prerequisites: SO 101 recommended. Typically offered fall semester. Three credits.
SO-202	SOCIOLOGY OF CHILDHOOD	Studying childhood from a sociological perspective means that we look at children's experiences in their larger social, cultural, and historical context. In this course, we will focus on childhood as a social phenomenon, engaging in discourse on topics such as the history and construction of childhood, children's peer cultures, how children experience society, and the intersection of childhood and social problems. Prerequisites: SO 101 recommended. Typically offered spring semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SO-204	DEVIANCE	This course begins with an overview of sociological theories of deviance and applies the different theoretical perspectives to current topics in deviance. A variety of definitions, key theoretical perspectives, and concepts are presented and analyzed in an effort to understand the numerous ways that deviant behavior may be defined, explained and interpreted. The field of deviance provides an opportunity to study interesting and important substantive areas of sociology, as well as an opportunity to study basic concepts and theoretical approaches in sociology. Prerequisite: SO 101 recommended. Typically offered every other spring semester (even-numbered years). Three credits.
SO-217	SOCIOLOGY OF RELIGION	All forms of religious experience are connected to a social environment. The focus of the course is the impact of the social context upon religious belief and behavior. Special topics include apocalyptic movements, Catholics and modernity, cults, sects, fundamentalism, satanism, conversion experiences, the charismatic movement, and the changing role of women in religious institutions. Prerequisite: SO 101 recommended. Typically offered every other spring semester (odd-numbered years). Three credits.
SO-235	INEQUALITY AND SOCIAL PROBLEMS	This course is an introduction to stratification, class theory, and social inequality, with an emphasis on the United States. We will explore relevant sociological theories and research findings concerning economic, political, and gender disparities, and the social problems created by these structures of inequality. Prerequisite: SO 101 recommended. Typically offered fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SO-276	SOCIOLOGY OF GENDER	This course explores the social formation of gender inequality as well as the accompanying cultural construction of masculine and feminine ideologies and identities. Our investigations will focus on the following themes: the institutionalization of patriarchy; the intersection of class, power, and racial disparities between men and women; sexual violence against women; the transformation of gender roles; and the social movements and organizations that resist discrimination. Prerequisite: SO 101 recommended. Typically offered every other fall semester (odd-numbered years). Three credits.
SO-307	SOCIOLOGICAL THEORY	This course traces the origin and development of sociological theory from the Enlightenment to the 21st century. The first part of the course will investigate the primary works of the classical theoreticians, focusing on Marx, Durkheim, and Weber. The second part of the course explores contemporary theories that have shaped sociology since the early 1900s, focusing on functionalism, conflict theory, and symbolic interactionism. Additional theories such as social exchange theory, phenomenology, and postmodernism will also be discussed. Prerequisite: SO 101, junior or above. Typically offered every other spring semester (even-numbered years). Three credits.
SO-340	SOCIOLOGY OF HEALTH AND ILLNESS	This course explores the sociological factors involved in the onset and progression of mental and physical illness. Sociological theories and research are used to make sense of the distribution of disease across groups in society. The main goal of the course is to show how social conditions like poverty, economic inequality, discrimination, environmental pollution, and segregation can produce harmful physical and psychological effects, especially in the form of elevated stress levels. The course will also consider the role of public policy as a strategy for improving health and alleviating suffering. Prerequisite: SO 101 recommended. Typically offered every other spring semester (odd-numbered years). Three credits.

COURSE	TITLE	COURSE DESCRIPTION
SO-350	INDEPENDENT STUDY--SOCIOLOGY	Independent investigation and research into a special topic for selected students. Topics are determined by both student and professor. Prerequisite: permission of faculty member and departmental chair. May be repeated. Variable credit.
SO-356	QUANTITATIVE RESEARCH METHODS	This course is an overview of research methodology in the social sciences. The general subject areas include research design, sampling, quantitative and qualitative methods, ethical issues, and computer assisted analysis of results using SPSS. The emphasis will be on quantitative methods. Occasional offering. Three credits.
SO-375	SPECIAL TOPICS IN SOCIOLOGY	Topics vary, but the focus of this course is an in-depth examination of specific social issues and/or developments in sociology. Prerequisite: junior or senior standing. Occasional offering. Three credits.
SO-405	SENIOR SEMINAR I	This is a required course for senior Sociology majors. The seminar will review each step of the research process, and students will complete an original research project. Prerequisite: AN 360 or permission of instructor. Typically offered fall semester. Three credits.
SO-450	SENIOR SEMINAR II	This course is a capstone course for Sociology majors. It is designed to facilitate critical reflection and analysis through completion of an independent senior project as well as a self-evaluation of sociological skills/knowledge and personal objectives. Prerequisites: SO 405. Typically offered spring semester. Three credits.
SO-550	SOCIOLOGY INTERNSHIP	Students may arrange to receive credit for employment experience in various non-college settings. It is also possible to have paid or unpaid professional work entered into the transcript as "no credit." Prerequisite: permission of the departmental coordinator. May be repeated. Variable credit.
STAB-100	STUDY ABROAD PROGRAM	Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Students must have the approval of the department before commencing any studies abroad. Credits vary.

COURSE	TITLE	COURSE DESCRIPTION
STAB-200	STUDY ABROAD	Participation in an approved program, either self-designed or in conjunction with an established program of another American university. Students must have the approval of the department before commencing any studies abroad. Credits vary.
TH-00X	THEOLOGY EXIT INTERVIEW	All graduating students are required to meet with their department chairperson/program director to finalize requirements for degree completion. Zero credits. Pass/Fail.
TH-119	FIRST THEOLOGY	The objective of the course is to explore the meaning of the Judeo-Christian tradition primarily through the study of the Hebrew and Christian Scriptures, with an appreciation of the various critical methods necessary for further study. Offered every semester. Three credits.
TH-119F	FIRST THEOLOGY	FIRST YEAR SEMINAR. The objective of the course is to explore the meaning of the Judeo-Christian tradition primarily through the study of the Hebrew and Christian Scriptures, with an appreciation of the various critical methods necessary for further study. Four credits.
TH-119H	HONORS FIRST THEOLOGY	HONORS COURSE. The objective of the course is to explore the meaning of the Judeo-Christian tradition primarily through the study of the Hebrew and Christian Scriptures, with an appreciation of the various critical methods necessary for further study. Offered every semester. TH 119 is a prerequisite to all other Theology courses. Three credits.
TH-201	PRIMARY HISTORY OF ANCIENT ISRAEL ISRAEL	An introduction to the study of biblical literature. The course will focus on the primary history of Israel from its beginnings to the eighth century B.C.E., as found in the books of Genesis through 1 Kings. Offered every fall semester. Three credits.
TH-204	PSALMS AND WISDOM LITERATURE	This course explores the Wisdom books of the Old Testament (including the deuterocanonical ones) and the book of Psalms. Ancient Near East influences are noted. This course explores how the Wisdom books prepare for the revelation of Jesus as the "Wisdom of God" and the role the Psalms play in the life and worship of ancient Israel, Jesus, the early Church, monks and the laity. Offered every semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-205	PROPHETS	This course will offer an overview of biblical prophecy, focusing on the Former, Latter, and Minor Prophets and how these individuals functioned in their societies. Special attention will be given to the historical settings of the prophets, their desire for social justice and the modern day implications of their works. Offered alternating spring semesters. Three credits.
TH-207	WOMEN IN THE OLD TESTAMENT	This course explores the shape and meaning of the Old Testament by examining its portrayal of women. It will investigate the historical realities which shaped the lives of these ancient women. In addition, this course will ask theological questions about gender in relation to major biblical themes such as creation, covenant and salvation. Three credits.
TH-212	THE SYNOPTIC GOSPELS	A deeper look into the methods of Gospel criticism including an historical approach to the life of Jesus. An introduction to the background and theology of each of the three synoptic gospels, Matthew, Mark, and Luke. Three credits.
TH-214	JOHANNINE LITERATURE	An introduction to the historical context, literary analysis and theological themes of the Gospel and Letters of John, and an interpretation of the apocalyptic message of the Book of Revelation. Three credits.
TH-215	EPISTLES OF SAINT PAUL	A study of the background and arguments of the Pauline writings. Reading and interpretation of the major epistles, especially as they regard Christian living. Three credits.
TH-216	SPIRITUAL JOURNEY/ST. PAUL	The seminar will begin with a survey of the spiritual life according to St. Paul following Br. Elliott's new book, Saint Paul, Master of the Spiritual Life "in Christ." The students will develop a term paper in which they will interpret a Pauline text (an exegesis) in collaboration with all the members of the seminar. The process will include several reports and a major class presentation of their work to the seminar. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-216H	SPIRITUAL JOURNEY OF ST. PAUL	HONORS COURSE. The seminar will begin with a survey of the spiritual life according to St. Paul following Br. Elliott's new book, Saint Paul, Master of the Spiritual Life "in Christ." The students will develop a term paper in which they will interpret Pauline text (an exegesis) in collaboration with all the members of the seminar. The process will include several reports and a major class presentation of their work to the seminar. Three credits.
TH-218	APOCALYPTIC LITERATURE	A survey of Jewish and Christian literature including a history of the apocalyptic movement in biblical times, the Old Testament books of Ezekiel and Daniel, the 'Little Apocalypses'+G1017 of the Synoptic Gospels and the Book of Revelation. Three credits.
TH-221	CHRISTIAN APROCRYPHA	In the past fifty years, we have seen an explosive interest in those writings that did not make it into the final biblical canon. In this course we will examine how the early Church decided on those Christian writings which would finally be canonical and on those which would remain consigned to the "Christian apocrypha." We will listen to the contemporary interest on this question arising in our generation, and examine how the Church is responding to them today. Three credits.
TH-230	BIBLICAL THEOLOGY	The biblical text, rather than any philosophical or external theological system, provides the starting point and structure for biblical theology's critical evaluation of scripture and tradition in light of contemporary needs. This course will begin with a study of the book of Exodus through one sharply defined question: What does this book say about God? The study of Exodus will provide the groundwork for an extended discussion of the themes related to this question in the Old Testament, Judaism, The New Testament, and Christianity. The significance of this development for addressing contemporary theological questions will be emphasized. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-232	WISDOM TRADITION IN THEOLOGY	Beginning with a study of the Wisdom literature of the Old Testament, this course will explore Jesus' relationship to Wisdom as well as the influence of the Wisdom tradition on the New Testament and Christian theology. Attention will be given to the themes of creation, incarnation, divinization, grace, and Wisdom or Sophia Christology. The significance of the Wisdom tradition in addressing contemporary theological issues will be emphasized. Three credits.
TH-235	WOMEN IN THE NEW TESTAMENT	An exploration of the roles and responsibilities of women as they are reflected in the texts of the New Testament. Attention will be given to issues of language, power, economics and gender role expectations with a focus on the ways in which early Christianity attempted to liberate people from oppression as well as the ways in which it compromised with the dominant society. Three credits.
TH-237	SCRIPT./ROMAN MISSAL & LECTIONARY	Examines the use of Scripture in the Roman Missal and its use in the Lectionary, and how it complements the more strictly academic, scientific critical methods of biblical hermeneutics. Three credits.
TH-240	HIST./BIBLICAL INTERPRETATION	: This course will explore the various ways that the Christian Scriptures have been used in the Church as the "soul of sacred theology." Special attention will be given to particular passages of Scripture which have provided inspiration for significant movements in church history, as well as particular methods which have arisen at various time periods in the history of the Church. Three credits.
TH-250	INTRODUCTION TO MORAL THEOLOGY	This course is to introduce students to the basic concepts of Catholic moral theology: natural law, conscience and decision making, and the virtues. Three credits.
TH-255	RELIGION AND POLITICS	This course will study the Catholic Church social doctrine as it relates to issues of politics. It will also focus on the thought of John Courtney Murray, the influence of his thought at the Second Vatican Council and contemporary responses to this school of thought. Three credits.
TH-260	ALIENS/MONSTERS/HEROES/JESUS	This course explores the world views and moral imperatives implied in film and fiction. It also looks at the ways these stories shape our character. It analyzes these ideas and ethics from a Christian perspective. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-265	GOD, WORK, AND MONEY	Purpose of the course is an exploration of the Catholic Church's social doctrine on and contemporary theological discussions of poverty, work, and economics. Three credits.
TH-270	CATHOLIC MARRIAGE	The purpose of the course is to explore the theological foundations and implications of marriage and family. Offered every fall semester. Three credits.
TH-272	THEOLOGY OF CHILDREN	This course explores the theological nature of the human person by focusing on childhood. As such it addresses the development of the child and the responsibilities of parents and teachers to support this growth. It utilizes the works of Fred Rogers to help address both of these themes as well as the role of media in the process. Three credits.
TH-275	CATHOLIC SEXUAL ETHICS	This course will present the understanding of human sexuality and of sexual morality as it has been developed in the continuing Catholic Tradition. This course will explore the broad meaning of human sexuality and the differences in male and female sexuality and the significance of these differences. Furthermore, we will examine the development of the Catholic Tradition regarding sexual morality, beginning with the Scriptures, continuing with the Fathers and medieval theologians. The course will also examine the debates over contraception, the response of the magisterium to these debates in Humane Vitae and the reaction to this magisterial document. Offered every spring semester. Three credits.
TH-280	CATHOLIC BIOETHICS	This course is to introduce students to how Catholic beliefs provide a framework for assessing bioethical issues, including health, health care, death, suffering, and medicine. Offered every semester. Three credits.
TH-300	SYSTEMATIC THEOLOGY I	The purpose of the course is to provide students with a critical and systematic overview of the central tenets of Christian faith from the Roman Catholic perspective and the perspective of contemporary theology as it seeks to engage a pluralistic world. Prerequisite: TH 119 Exploring Religious Meaning. Offered every fall semester. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-301	SYSTEMATIC THEOLOGY II	This course provides an advanced introduction to contemporary developments in theology. In addition, the course will consider how the pastoral life of the Church both expresses and shapes theological principles. Prerequisite: Systematic Theology I or permission of chair. Three credits.
TH-310	THEOLOGY OF EARLY CHRISTIANITY	This course will trace the history and thought of the first 500 years of Christianity. Topics of study include Christians' tenuous relationship with Roman society, Church order and practice, and the development of doctrine. Three credits.
TH-312	CHRISTIAN MARTYRDOM	This course will explore the witness of Christian martyrs from the early Christian period to contemporary times. The study will include consideration of varying definitions of martyrdom, accounts of martyrdom, and the context in which martyrdom occurs. Three credits.
TH-320	THEOLOGY OF MEDIEVAL CHRISTIANITY	The development of Western Christianity from 700 to 1400 is the crucible from which modern civilization grew. This course traces the development of Christian thought and life in this period, including the development of doctrine, theological method, and the emergence of new religious orders. The main focus is on select theologians such as Saints Anselm of Canterbury, Bonaventure and Thomas Aquinas. Three credits.
TH-325	VATICAN II HISTORY AND THEOLOGY	This course provides students with a historical and theological overview of the Second Vatican Council as well as an examination of the council's major documents. The perspective taken is that Vatican II represents an important moment in the development of the Catholic tradition, representing both theological innovation as well as signaling fundamental continuity in the life of the Church. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-327	LIVING THEOLOGY IN GUATAMALA	The course is designed to help students critically engage the concrete experience of economic struggle and injustice in Guatemala through the lens of contemporary theology. As a travel service learning course, students will broaden their understanding of the developing world and the place of faith and theology therein. Course requirements include: (1) meeting in a classroom setting several times prior to the trip, (2) full and active participation in the trip (additional costs), and (3) the production of a brief research/report following the trip. One credit.
TH-330	CATHOLIC SACRAMENTS	The course begins with an investigation of the theological foundation of the sacraments as actions of Christ and the Church. The individual sacraments are studied with an emphasis on historical development and liturgical practice as keys to understanding them. Special emphasis is given to the sacraments of initiation: Baptism, Confirmation and Eucharist. A special unit is devoted to the marriage preparation process and the liturgical options of the wedding ceremony. Three credits.
TH-332	ECCLESIOLOGY	A theological study of the teaching of the Catholic Church concerning the origin and meaning of the Church of Jesus Christ. Primary emphasis is placed upon biblical testimony and the teaching of the Second Vatican Council. The study also includes an overview of the Church in history as well as contemporary issues. Three credits.
TH-332H	HONORS ECCLESIOLOGY	HONORS COURSE. A theological study of the teaching of the Catholic Church concerning the origin and meaning of the Church of Jesus Christ. Primary emphasis is placed upon biblical testimony and the teaching of the Second Vatican Council. The study also includes an overview of the Church in history as well as contemporary issues. Three credits.
TH-333	THE MODERN PAPACY	This course covers the role and theology of the papacy from Pius IX to the present. Three credits.
TH-334	CHRISTOLOGY	A biblical study of the life and teaching of Jesus. An examination of various portraits of Jesus from earliest Christianity through the Middle Ages to contemporary images. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-335	CHRISTIAN DOCTRINE OF GOD	The course will examine the historical development of the Christian doctrine of God and will explore attempts by contemporary theologians to appropriate this doctrine. Three credits.
TH-340	BASICS OF CATHOLIC FAITH	Based on the Catechism of the Catholic Church, this course addresses the most basic elements that together make up the living reality of Catholic faith: Gospel, Jesus of Nazareth, Church, Jewish roots, liturgy, doctrine, Christian moral life, tradition, and the Kingdom of God. Offered every semester. Three credits.
TH-342	THE BENEDICTINE HERITAGE	This course combines a study of Benedictine Monasticism and the local history of Saint Vincent. It begins with Boniface Wimmer and the nineteenth century revival of monastic life leading to the founding of Saint Vincent Archabbey and College. It then shifts to a study of monastic sources with emphasis on a textual study the Rule of Saint Benedict. The course includes field trips to nearby religious communities and walking tours of little known parts of the Saint Vincent campus. Three credits.
TH-343	MARIOLOGY	This course offers a theological study pertaining to the Church's teachings on the Virgin Mary. This study will include: pertinent texts from Sacred Scripture, post-canonical literature, teachings from the early councils, Mary and the Patristics, scholastic Mariology, Mary and the Protestant Reformation, dogmas concerning the Immaculate Conception and the Assumption, Mary in Art, Marian devotions, Marian apparitions, and Mary within the context of the Second Vatican Council with subsequent articulation. Three credits.
TH-344	CLASSICS OF CATHOLIC THEOLOGY	The course will focus on five major periods in the history of Roman Catholic theology: the Patristic Period, the Middle Ages, the Counter Reformation, the Modern Period, and the Contemporary or "Postmodern" Period. The course will focus on one major work from an author associated with each of the five aforementioned periods. Offered alternating fall semesters. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-345	CHRISTIAN SPIRITUAL WRITINGS	This course will survey a selection of Christian spiritual texts from the early Church period to contemporary writings. Students will learn to read primary texts theologically by attending to doctrinal, spiritual, and pastoral issues. Three credits.
TH-347	THE NEW EVANGELIZATION	This course will examine the defining elements of Catholic evangelization, including: biblical mandates, ecclesial documents and papal writings. Particular emphasis will be given to the work of the 2012 World Synod on the New Evangelization and the USCCB's document Disciples: Called to Witness. Select resources for parish evangelization will be highlighted and concrete evangelizing strategies will be explored. Three credits.
TH-348	FILM, FICTION, AND FAITH	This course examines both the distinctive ways film and literary fiction explore the basic tenets of the Christian faith and the way Christian theology understands film and literary fiction. Three credits.
TH-350	HOLOCAUST QUESTIONS	An inquiry concerning the "kingdom of death," and the religious and moral issues attending the building of that kingdom. Hitler's war against the Jews assaulted the fundamental values of Biblical religion. This course will confront the implications for contemporary humanity of the shaking of these foundations. Three credits.
TH-355	HISTORY OF JEWISH THOUGHT	This course is a study of the evolution of Jewish thought as it interacted with and grew from the varied environments in which the Jews found themselves from the biblical period to the present day. Three credits.
TH-357	HIST. CHRISTIAN CHURCHES	This course explores the development of Christianity from the Middle Ages to the Enlightenment. Topics explored in this course include the growth of the papacy, medieval heresies, new religious orders, Mysticism, religion during the Renaissance, Martin Luther, John Calvin, radical reformers in Europe, the English Reformation, the Council of Trent and the Catholic Reformation, and the Enlightenment. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-358	CATHOLIC-JEWISH DIALOGUE	In a world torn by violence and pain the need for a living conversation aimed at Shalom, a peace of wholeness and understanding, is the goal of this course. The course is inspired by the dialogue between Catholic and Jewish scholars initiated by the Second Vatican Council. By dialogue is meant a fourfold activity: dialogue of life (living together in solidarity as neighbors); dialogue of action (working together for the common good); dialogue of theological exchange (exploring together in friendship different religious traditions); and dialogue of religious experience (sharing in common prayer or in religious practice). Participation in class discussions will be expected of students enrolled in this course. It is hoped that this course will help students become active participants in a life of dialogue. Three credits.
TH-360	PROTESTANT TRADITIONS	A course dealing with the foundations which the Reformation Period laid for Protestantism in Europe. Luther and basic Protestant tenets will be explored as well as the Wesleyan movement in England and 19th-century American revivalism. Offered every semester. Three credits.
TH-362	RELIGION IN AMERICA	A study of the American experience from the colonial period to the present from the perspective of religion and its relation to the individual and society. Three credits.
TH-364	20TH CENTURY PROTESTANT THOUGHT	This course will explore major trends in Protestant theology during the twentieth century. That goal will be pursued by looking at several important theological figures which were a part of these themes and time. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-365	PROTESTANT THROUGH 20TH CENTURY	The course begins with a brief discussion of late nineteenth foundational thinking. The impact of Karl Barth and Paul Tillich will be explored followed by the thinking of the German martyr Dietrich Bonhoeffer. The social impact of Reinhold and Richard Niebuhr explores twentieth century issues of economic and political concern. Racial justice in the writing of Martin Luther King and James Cone will be coupled with feminist theologians such as Rosemary Reuther. The course concludes with an examination of the return of the evangelical theology of Bernard Ramm and Carl Henry. It is understood that other theologians will be a part of this study. Three credits.
TH-366	RELIGIOUS BELIEFS OF ABRAHAM LINCOLN	A study of Abraham Lincoln's unique and strong faith; his religious convictions in relationship to the context of his childhood, his presidency, nineteenth-century America, and their effect upon the age in which we live. Three credits.
TH-370	INTRO/ORTHODOX CHRISTIANITY	A survey of the Orthodox Christian faith focusing on the fundamental beliefs of the Church including: the nature and meaning of the Church, the primary sources of faith, the liturgical and sacramental life, the nature and role of iconography and ecclesiastical architecture and hymnography. This course will compare and contrast elements of the traditions of the Orthodox and Roman Catholic Churches. Three credits.
TH-380	WORLD RELIGIONS	A survey of the world religions including Hinduism, Buddhism, Islam, as well as Shintoism, Confucianism and Taoism. Included will be the religious practices, customs and beliefs of each tradition. This course also addresses Catholic responses to the significance and meaning of the diversity of world religions. Three credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-385	BUDDHISM	This course is intended to give the student as overview of The Buddhist Tradition. It will examine the life of Siddhartha Gautama the historical Buddha. The basic views and beliefs of Buddhism along with the variations of the three traditions of Buddhism will be discussed. This course will also examine the life of the current Dali Lama, emphasizing his life as well as his thinking for the twenty first century. Comparisons with The Christian Tradition will be explored. Three credits.
TH-400	METHODS OF RELIGIOUS EDUCATION	A study of the key documents concerning Catechesis in the church that come from the Vatican and the USCCB. It discusses some basic elements of Religious Education from elementary age students through adults, works on Liturgical and sacramental preparation, Youth and Young Adult Ministry, retreat planning, elementary and high school teaching, and Campus Ministry. Offered alternating spring semesters. Three credits.
TH-410	MINISTRY FIELD EXPERIENCE	This seminar serves as a complement to a ministry internship placement that will be completed concurrently or in the previous summer. Readings, reflection, and group conversations will help students to integrate a theology of ministry with their field experience and developing vocation. Students will learn to establish ministry goals and objectives for their ministry placements. Offered in the fall semester. One credit.
TH-499	THEOLOGY CAPSTONE	This seminar course requires majors to complete a research project under the direction of the faculty member. This research will build upon work done in Systematics I & II. Prerequisites: TH 300 Systematics I & TH 301 Systematics II. Offered fall semester.
TH-500	INDEPENDENT STUDY -- THEOLOGY	Theological study of a topic to be chosen and developed by the student with guidance of the directing professor. Course requirements to be developed in consultation with supervising faculty. May be repeated. Variable credits.

COURSE	TITLE	COURSE DESCRIPTION
TH-550	THEOLOGY INTERNSHIP	In conjunction with the chairperson, the student pursues an internship which enables the student to implement various teaching skills. It is expected that the student can utilize acquired academic knowledge and manifest leadership abilities in a religious education setting. Offered every semester. One to three credits.