NOTE: All courses 500 level and above are for graduate credit only.

The following course listing represents the University curricula as of the publication of this catalog. Additions and changes to the offerings are published in the Registration Bulletin and on the Web.

Not all courses are offered every semester. For current offerings consult the most current academic schedule during registration periods. See your academic advisors/department chair for additional information.

ACCOUNTING (ACCT)

201. PRINCIPLES OF ACCOUNTING I
3 hours credit
Survey of current accounting principles, the accounting cycle and financial statements. Emphasis on proprietorships. Computer spreadsheet applications required. Prerequisite: Twenty-four college credit hours taken at or accepted by SU. Three hours per week.

202. PRINCIPLES OF ACCOUNTING II
3 hours credit
Survey of accounting principles and financial statements as they apply to partnerships and corporations and an introduction to manufacturing statements. Computer spreadsheet applications required. Prerequisite: ACCT 201. Three hours per week.

248. LEGAL ENVIRONMENT
3 hours credit
In-depth analysis of legal principles and their relationship to commerce. Topics include areas of torts, constitutional law, contracts and government regulation. Three hours per week.

302. COST ACCOUNTING I
3 hours credit
Internal financial reporting practices for manufacturing concerns and an examination of cost control. Topics include manufacturing statements, job order costing, process costing and standard costing. Computer spreadsheet applications required. Prerequisite: ACCT 202. Three hours per week.

304. INTERMEDIATE ACCOUNTING I
3 hours credit
Detailed analysis of current and noncurrent assets and the related revenue and expense accounts. Emphasis on recent APB and FASB pronouncements. Prerequisites: Grade of C or better in ACCT 201, 202. Three hours per week.

305. INTERMEDIATE ACCOUNTING II
3 hours credit
Detailed analysis of accounting concepts, including current and noncurrent liabilities, stockholders equity accounts, related revenue and expense accounts, and statement of changes in financial position. Emphasis on recent APB and FASB guidelines. Prerequisites: Grade of C or better in ACCT 304 and successful completion of the Accounting Program admission test. Three hours per week.

306. MANAGERIAL ACCOUNTING
3 hours credit
Introduction to internal accounting—accounting for planning and control and also for special decisions. Various topics and techniques are covered, the most pervasive being budgets. Prerequisite: ACCT 202. Three hours per week.

338. SPECIAL TOPICS
3 hours credit
Advanced study of varying accounting topics based on students' interests and needs. May be repeated once for credit under different subtitles. May substitute for an accounting elective depending on the topic (see chair of Accounting Department). Prerequisites: ACCT 202 and permission of instructor. Three hours per week.

341. FEDERAL INCOME TAX ACCOUNTING: PERSONAL
3 hours credit
Discussion of technical tax provisions as they pertain to individuals. Emphasis on tax planning considerations. Use of IRS forms where appropriate. This course, along with successful participation in the VITA program, satisfies the ABLE requirement. Prerequisite: ACCT 202. Three hours per week.

342. FEDERAL INCOME TAX ACCOUNTING: PARTNERSHIP AND CORPORATION
3 hours credit
Discussion of technical tax provisions as they pertain to corporations, partnerships, estates and trusts. Emphasis on tax planning considerations. Prerequisite: ACCT 341. Three hours per week.

348. BUSINESS LAW
3 hours credit
Detailed expansion of Legal Environment (ACCT 248). Additional topics include business associations, partnerships, agencies, corporations, bankruptcy law, securities and accountants' liability. Stresses topics commonly found on the uniform CPA examination. Prerequisite: ACCT 248. Three hours per week.

401. INTEGRATED ACCOUNTING SYSTEMS
3 hours credit
Detailed analyses and applications of computerized integrated accounting software systems. Topics include general ledger, accounts receivable, accounts payable, payroll, inventory and report writing systems. Prerequisite: ACCT 202. Three hours per week.

403. ADVANCED ACCOUNTING I
3 hours credit
In-depth study of consolidations and governmental/not-for-profit accounting. Prerequisites: Senior status and a grade of C or better in ACCT 305. Three hours per week.

404. ADVANCED ACCOUNTING II
3 hours credit
Examination of advanced accounting topics such as foreign currency translations; segment, interim and SEC reporting; troubled debt; partnerships; and estates and trusts.
Prerequisite: Grade of C or better in ACCT 305. Three hours per week.

407. AUDITING
3 hours credit
Duties and responsibilities of auditors; auditing standards, examination procedures, work paper preparation and audit reports. Prerequisites: Senior status and grade of C or better in ACCT 305. Three hours per week.

410. ADVANCED PROBLEMS IN FINANCIAL, MANAGERIAL AND GOVERNMENTAL ACCOUNTING
3 hours credit
Advanced applications in financial, managerial and governmental accounting. The first of a two-course elective sequence for accounting majors who plan to pursue a career in public accounting as certified public accountants. Prerequisite: Grade of C or better in ACCT 305 or permission of the department chair. Three hours per week. (P/F)

411. ADVANCED PROBLEMS IN TAXATION, LAW AND AUDITING
3 hours credit
Advanced applications in federal taxation, business law, professional responsibilities and ethics, and auditing. The second of a two-course elective sequence for accounting majors who plan to pursue a career in public accounting as certified public accountants. Prerequisite: Grade of C or better in ACCT 305 or permission of the department chair. Three hours per week. (P/F)

415. GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING
3 hours credit
Examination of the full range of accounting and reporting policies and procedures for state and local governments as well as for not-for-profit organizations. Prerequisite: Grade of C or better in ACCT 305. Three hours per week.

420. ACCOUNTING INFORMATION SYSTEMS
3 hours credit
Examination of the role of accounting information in the organization. Major topics include users of accounting information, goals and objectives, review of accounting systems, the human component, hardware, software, data, operating controls and management controls. Prerequisite: Grade of C or better in ACCT 304. Three hours per week.

430. INTERNATIONAL ACCOUNTING
3 hours credit
Introduction to a variety of international accounting issues encountered by multinational organizations. Includes accounting and auditing standards, consolidations and taxation. Prerequisite: Grade of C or better in ACCT 304. Three hours per week.

435. ACCOUNTING IN ITS GLOBAL SETTING
3 hours credit
Introduction to a variety of international accounting issues encountered by multinational organizations. Issues include financial accounting standards; consolidation of international operations; auditing standards and procedures; managerial accounting systems for information gathering, planning, control and performance measurement; and international taxation. Part or all of the course will be held in another country. Prerequisite: Grade of C or better in ACCT 304. Three hours per week.

490. ACCOUNTING INTERNSHIP
3 hours credit
Internship experience in accounting. Placement and approval by chair of the accounting department required. Prerequisites: Grade of C or better in ACCT 201, 202. Successful completion of the Accounting Program admission test. Completion of, or concurrent enrollment in, ACCT 304. Placement approval and permission of the department chair. Completion of ABLE administrative requirements. Three hours per week.

491. ADVANCED ACCOUNTING INTERNSHIP
3 hours credit
Advanced internship experience in accounting. Placement and approval by chair of the accounting department required. Prerequisites: ACCT 490. Placement approval and permission of the department chair. Completion of ABLE administrative requirements. Three hours per week.

494. DIRECTED STUDY
1-3 hours credit
For students who desire to do research or pursue a special topic in accounting. May be used as an accounting elective if approved by the chair of the Accounting Department. Prerequisites: Junior status and permission of instructor prior to registration. One to three hours per week.

510. GRADUATE SURVEY OF ACCOUNTING
3 hours credit
Introduction to the principles of accounting for proprietorships, partnerships and corporations. Surveys current financial accounting principles, the accounting cycle and financial statements. Prerequisite: Provisional status in M.B.A. program. Three hours per week.

605. FINANCIAL ACCOUNTING THEORY
3 hours credit
Basic framework of accounting theory relating to income determination and funds flows. The basic problem of asset measurement, classification and the objective of financial reporting are presented along with the official and unofficial pronouncements of accounting societies and changes in accounting procedures. Basic understanding of the nature and development of accounting principles along with their application to current practice. Prerequisite: Admission to M.B.A. program. Three hours per week.

608. ADVANCED AUDITING
3 hours credit
Addresses current issues in the technical, political, legal and economic environment which affect the public accounting profession’s performance of its audit and attest function. Prerequisite: Admission to M.B.A. program. Three hours per week.

615. GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING
3 hours credit
Covers the full range of accounting and reporting policies and procedures for state and local governments as well as for a variety of not-for-profit organizations. Prerequisite: Admission to M.B.A. program. Three hours per week.

620. ADVANCED ACCOUNTING INFORMATION SYSTEMS
3 hours credit
Presents the underlying concepts of information management, with an emphasis on accounting applications and systems controls. Prerequisite: Admission to M.B.A. program. Three hours per week.

630. INTERNATIONAL ACCOUNTING
3 hours credit
Introduces a variety of international accounting issues encountered by multinational organizations. Prerequisite: Admission to M.B.A. program. Three hours per week.

640. MANAGERIAL ACCOUNTING
3 hours credit
Study of the use by management of accounting information for planning and control. Includes budgeting, cash-flow analy-
Opposite, cost behavior concepts, strategic planning and financial reporting. This course is for non-accounting majors. **Prerequisite:** Admission to M.B.A. program. **Three hours per week.**

**645. ADVANCED TAXATION AND PUBLIC POLICY**
**3 hours credit**
Focus on foundation and application of tax policy and law for federal and state income taxation. Individual, business and fiduciary tax knowledge will allow the student to develop a tax awareness by analyzing the ability to recognize tax problem areas, pitfalls and planning opportunities. Local, state, federal and international taxation issues and current events of U.S. individuals and business entities coupled with expanding on tax research skills will prepare students for management decision making roles in the consulting or business world. **Prerequisite:** Admission to M.B.A. program. **Three hours per week.**

**650. ADVANCED MANAGERIAL ACCOUNTING**
**3 hours credit**
Provides undergraduate accounting majors with advanced treatment of new and complex techniques and procedures integral to the design and implementation of managerial and cost control systems in a rapidly evolving technological environment. **Prerequisite:** Admission to M.B.A. program. **Three hours per week.**

**660. CONTEMPORARY ISSUES IN ACCOUNTING**
**3 hours credit**
Study of contemporary problems and issues emerging in the accounting profession. Includes developments at the SEC, FASB, GASB, GAO, IFAC, AICPA, etc., plus other technical issues. **Prerequisites:** A total of nine hours of upper-division accounting courses including ACCT 302, 304. Admission to the M.B.A. program. **Three hours per week.**

**698. DIRECTED INDEPENDENT STUDY**
**1-3 hours credit**
Individual tutorial course including accounting research topics not covered in other accounting courses. May be taken a maximum of two times (regardless of number of credits each time) under different subtitles. **Prerequisites:** A total of nine hours of upper-division accounting courses including ACCT 302, 304; completion of M.B.A. Office administrative requirements; and admission to the M.B.A. program. **One to three hours per week.**

**699. SPECIAL TOPICS IN ACCOUNTING**
**3 hours credit**
Study of specific problems and issues in accounting not covered in other courses. May be take twice (maximum number of credit is six) under different subtitles. **Prerequisites:** A total of nine hours of upper-division accounting courses including ACCT 302, 304. Admission to the M.B.A. program. **One to three hours.**

**AMERICAN STUDIES (AMST)**

**205. THE AMERICAN EXPERIENCE**
**3 hours credit**
Introductory course in American Studies. Attempts to define the American character and society through reading in history, biography and fiction covering the 19th and 20th centuries. **Three hours per week.**

**305. ALTERNATIVE COMMUNITIES AND LIFESTYLES IN AMERICA**
**3 hours credit**
Survey of American countercultures from the Puritans to recent communes. Emphasis on alternative forms of religion, economic and social organization, and marriage. **Three hours per week.**

**315. TOPICS IN AMERICAN STUDIES**
**3 hours credit**
Historical study of some particular aspect of American society and culture. May be taken twice under different course titles. **Three hours per week.**

**480. SENIOR SEMINAR IN AMERICAN STUDIES**
**3 hours credit**
A research seminar. Students design and carry out a research project. Class reading and discussion attempts to integrate previous work done in American studies and arrive at a comprehensive overview of American society and culture. **Three hours per week.**

**ANTHROPOLOGY (ANTH)**

**101. INTRODUCTION TO ANTHROPOLOGY**
**3 hours credit**
Introduction to the cross-cultural study of humans. Topics include human evolution and genetics, archaeology, and cultural patterns. **Three hours per week. Meets General Education IIB.**

**212. CULTURAL ANTHROPOLOGY**
**3 hours credit**
Examines the diversity of human cultures through the study of a wide range of traditional and modern societies, with an emphasis on participant-observation ethnographic research. **Three hours per week. Meets General Education IIB.**

**215. RELIGION, MAGIC AND WITCHCRAFT**
**3 hours credit**
Study of beliefs and rituals of people affected by the presence of gods or other supernatural beings. Topics include magic, witchcraft and shamanist practices among aboriginal and traditional societies throughout the world. **Three hours per week. Meets General Education IIB.**

**250. ARCHAEOLOGY OF ANCIENT SOCIETIES**
**3 hours credit**
Introduction to world prehistory, from the Lower Paleolithic to literate state-level societies, and the methods and techniques used to recover and interpret archaeological evidence. **Three hours per week. Meets General Education IIB.**

**300. TOPICS IN ANTHROPOLOGY**
**3 hours credit**
Study in selected areas in varied subfields of anthropology. May be repeated twice under different subtitles. **Prerequisite:** ANTH 101. **Three hours per week.**

**350. PHYSICAL ANTHROPOLOGY**
**3 hours credit**
Overview of the major evidence for human evolution and modern biological variation, including the fossil record, genetics and primatology. **Prerequisite:** ANTH 101. **Three hours per week.**

**355. NORTH AMERICAN INDIAN**
**3 hours credit**
Explores American Indian cultures north of Mexico with emphasis on tribal origins, patterns of adaptation and analysis of economic, social and ideological systems. Reviews ethnographic accounts of traditional Indian life ways, reservation life and its aftermath. **Three hours per week. Meets General Education IIB.**

**400. INDIVIDUAL DIRECTED STUDY**
**3 hours credit**
Advanced study in an area of anthropology through intensive literature and/or field research. **Prerequisites:** Sophomore standing and completion of two anthropology track core courses with C or better grades.
Admission to graduate study.

BIOL 552
ANTH 101 or 212.
Sophomore standing and completion of prerequisite courses. Prerequisite: AHPH 512, Community CPR.

Three hours per week.

Admission to program.

3 hours credit

559. SEMINAR IN ANTHROPOLOGY
Cross-cultural survey of traditional and modern societies with an emphasis on the recognition and interpretation of human cultural patterns. Prerequisite: ANTH 101 or 212. Three hours per week.

4.7. UNDERGRADUATE RESEARCH
Independent student research under anthropology faculty supervision. Students will have the opportunity to study a topic in depth and design their own research project; public presentation of results required. Prerequisites: Junior standing and satisfactory completion of three core courses.

3 hours credit

500. INDIVIDUAL DIRECTED STUDY
Advanced study in an area of anthropology through intensive literature and/or field research. May be repeated twice under different subtitles. Prerequisites: Sophomore standing and completion of two anthropology track core courses with C or better grades. Three hours per week.

3 hours credit

520. ARCHAEOLOGICAL FIELD METHODS
Instruction in the hands-on techniques of archaeological fieldwork, including survey, excavation and the recording of finds. Offered during summer term only. Thirty-five hours per week.

6 hours credit

550. COMPARATIVE CULTURES
Cross-cultural survey of traditional and modern societies with an emphasis on the recognition and interpretation of human cultural patterns. Prerequisite: ANTH 101 or 212. Three hours per week.

3 hours credit

512. STRENGTH TRAINING TECHNIQUES AND PROGRAM DESIGN
Examination of strength training techniques and program design. Emphasis placed on proper form and utilization of various workout designs to complement larger training goals.

3 hours credit

Students will gain experience in the practical aspects of designing individual workout sessions, periodization and programming to enhance progression. The course is designed to assist the student in meeting requirements to be eligible for and pass the National Strength and Conditioning Association’s Certified Strength and Conditioning Specialist exam (additional fee required for examination). Prerequisite: Admission to graduate study. Three hours per week.

513. EXERCISE AND STRENGTH TRAINING FOR REHABILITATION
Review of injury process to bones/muscles that affect strengthening techniques and ability as well as the interaction of complicating medical history on exercise programs. Students will apply concepts of strengthening, cardiovascular and stretching techniques and design integrated programs for individuals with various medical conditions. Prerequisite: Admission to program. Three hours per week.

514. MUSCLE PHYSIOLOGY: ADAPTATIONS TO TRAINING AND SUPPLEMENTS
Examination of muscle structure and function. Focus on muscle response to aerobic and resistance training and alterations induced via supplement use. Additionally, students examine the influence of muscle disuse and response to injury. Prerequisite: Admission to graduate study. Three hours per week.

3 hours credit

515. APPLIED STRENGTH AND CONDITIONING
Application of concepts and principles presented in AHPH 512 and AHPH 513. Students are assigned a group of athletes to train. Students work under the direction of the course instructor to design, implement and modify the strength and conditioning programs for their athletes. Emphasis is placed on tailoring the strength and conditioning programs to best meet the individual athlete’s needs. Prerequisite: AHPH 512, 513 and American Heart Association Health Care Provider CPR. Three hours per week.

3 hours credit

534. HUMAN PSYCHOPHYSIOLOGY
Study of the interrelationships between the mind and body. Examination of current research and historical views on the interaction of physiological processes and psychological function. Prerequisite: BIOL 552. Three hours per week.

3 hours credit

537. HEALTH APPRAISAL AND TESTING WITH EMERGENCY PROCEDURES
Study of health screening techniques, fitness testing and emergency procedures. Students will be certified in advanced cardiac life support. Prerequisite: Community CPR. Three hours per week.

3 hours credit

542. EXERCISE PROGRAMMING, NUTRITION AND WEIGHT CONTROL
Study of exercise programming guidelines as established by the American College of Sports Medicine. A strong focus is placed upon nutrition and weight control in conjunction with exercise prescription recommendation for a variety of clinical populations. Students gain practical experience in developing exercise programs for individuals with various conditions. Prerequisite: Admission to program. Three hours per week.

3 hours credit

544. PHARMACOLOGICAL ASPECTS OF CLINICAL PHYSIOLOGY
Examination of the physiological mechanisms involved in the clinical treatment of individuals with medications. Emphasis placed on the pharmacological influence on therapeutic exer-
cise program design, monitoring techniques and patient outcomes. Prerequisites: AHPH 537, 542, BIOL 552. Three hours per week.

545. CARDIOPULMONARY ASPECTS OF PHYSIOLOGY
3 hours credit
Study of cardiopulmonary physiology with an emphasis on gas transport, fluid and electrolyte balance, acid-base regulation, response to exercise and training adaptations. Prerequisite: Admission to program. Three hours per week.

546. HUMAN DEVELOPMENT AND AGING IN POPULATIONS WITH CHRONIC DISEASE
3 hours credit
Study of the pathophysiology and psychosocial aspects of aging populations with Chronic Obstructive Pulmonary Disease (COPD) and those with Coronary Artery Disease (CAD). Examination of the deleterious effects of COPD and CAD on physical and psychological functioning. Emphasis on cardiac/pulmonary rehabilitation as a mechanism to enhance quality of life in populations with COPD and/or CAD. Prerequisites: AHPH 537, BIOL 552. Three hours per week.

553. CLINICAL PHYSIOLOGY
3 hours credit
Study of common lab techniques used in physiologic health screening, fitness testing and research. Emphasis on cardiorespiratory and musculoskeletal procedures. Three hours per week.

562. TRENDS AND ISSUES IN PHYSIOLOGY
3 hours credit
In-depth examination of current literature in physiological journals. Emphasis placed upon critical review of research in regards to methodology, data interpretation and conclusions derived from data. Prerequisite: Admission to program. Three hours per week.

590. SELECTED TOPICS IN APPLIED HEALTH PHYSIOLOGY
3 hours credit
Provides opportunities to investigate special themes or issues of interest in the health and fitness professions. Topics will vary by semester. May be repeated once under different course subtitles for a total of six credits. Prerequisite: Permission of instructor. Three hours per week.

691. RESEARCH IN PHYSIOLOGY
3 hours credit
Independent student research under the direction of a faculty member. Students will collect, analyze and interpret data and then prepare a manuscript suitable for publication. Prerequisite: AHPH 502. Six hours per week.

692. APPLIED HEALTH PHYSIOLOGY INTERNSHIP
3 hours credit
An internship of practical/observational experience with an approved health care/enhancement program for students pursuing a Master of Science in applied health physiology. Prerequisite: Admission to the program; completion of 18 graduate credit hours in the program to include AHPH 544, 545 and 546; healthcare provider CPR; purchase of professional liability insurance; and consent of program director. Thirty-seven and one-half hours per week for 14 weeks.

ART (ART)

104. ART APPRECIATION
3 hours credit
Wide ranging introduction to the visual arts for the non-major. Topics include art theory, varied pictorial and artistic subject matter, media and the relation of art to its historical time period and culture. Three hours per week. Meets General Education IB.

120. TWO-DIMENSIONAL DESIGN
3 hours credit
Introduction to and development of knowledge and comprehension of the underlying principles of composition, through the creation of designs on flat surfaces. Students furnish their own materials. B.A. and B.F.A. core. Four hours per week. Meets General Education IB.

130. DRAWING I
3 hours credit
Introduction to basic drawing principles, using a combination of black and white media in the exploration of linear and tonal elements. Students furnish their own materials. B.A. and B.F.A. core. Four hours per week. Meets General Education IB.

201. INTRODUCTION TO ART HISTORY
3 hours credit
Chronological survey of art and architecture in western civilization, from prehistory to the present. Considers the style, subject matter and purposes of art in relation to its historical time period or culture. B.A. and B.F.A. core. Three hours per week. Meets General Education IB.

208. HISTORY OF BAROQUE AND ROCOCO ART
3 hours credit
Survey of the visual arts in Europe from the late 16th century to the end of the 18th century. Explores the work of the era’s major artists in relation to the larger historical, social and cultural contexts of their time. Emphasis on new developments in subject matter, patronage and art theory. Prerequisite: ART 201 for majors; no prerequisite for non-majors. Three hours per week. Meets General Education IB.

215. CERAMICS I
3 hours credit
Introduction to the art of making clay forms using methods of hand building, forming, glazing, decorating and firing. Students furnish their own materials. B.A. Core. B.F.A. Prerequisites: ART 120, 225. Four hours per week. Meets General Education IB.

219. DESIGN IN FIBER CRAFTS
3 hours credit
Introduction to the art of textile design utilizing a variety of techniques and materials. Students furnish their own materials. B.F.A. Prerequisites: ART 120, 130. Four hours per week.

220. PRINCIPLES OF COLOR
3 hours credit
Introduction to the historical aspects of color and the exploration of the physical and psychological properties of color through practical exercises. Students furnish their own materials. B.A. and B.F.A. core. B.F.A. Prerequisite: ART 120. Four hours per week. Meets General Education IB.

225. THREE-DIMENSIONAL DESIGN
3 hours credit
Continued exploration of the elements and principles of design with a concentration of interrelationships between mass, space, form and volume. Students furnish their own materials. B.A. and B.F.A. core. Prerequisite: ART 120. Four hours per week.
226. GRAPHIC DESIGN I
3 hours credit
Introduction to graphic design as a specialized arts medium that integrates text and images to communicate specific messages to diverse viewers. Covers the history of graphic design, principles of visual communication and image creation, and the use of specialized computer software to solve basic graphic design problems. **B.A. Prerequisite:** ART 120, 130. **B.F.A. Prerequisites:** 120, 130, 201, 220, 230. **Four hours per week.**

227. DIGITAL DESIGN AND LAYOUT
3 hours credit
Introduction for non-graphic design majors to the principles of graphic design and layout, and to the basic software packages used in graphic design. **B.A. and B.F.A. Prerequisites:** ART 120, 130, 201, 220, 225 and 230 or instructor permission. **Four hours per week.**

229. PHOTOGRAPHY I
3 hours credit
Prerequisite: ART 201. Permission of instructor for non-majors.

**Prerequisites:** ART 120, 130, 220, 225, 230.

**3 hours credit**
Introduction to basic elementary black and white photographic methods and darkroom procedures. Students furnish their own cameras, film, paper and developing tank. **B.A. core.**

**B.A. Prerequisites:** ART 120, 130. **B.F.A. Prerequisites:** ART 120, 130, 220, 225, 230. **Four hours per week.**

230. DRAWING II
3 hours credit
**Prerequisites:** ART 201. Permission of instructor for non-majors.

**3 hours credit**
Introduction to monochromatic and polychromatic drawing techniques using wet and dry media. Students furnish their own materials. **B.F.A. core.**

**B.A. Prerequisites:** ART 120, 130. **B.F.A. Prerequisites:** ART 120, 130, 220, 225, 230. **Four hours per week.**

246. PAINTING I
3 hours credit
Prerequisite: ART 201.

**3 hours credit**
Introduction to techniques in oil, acrylics and watercolor. Students furnish their own materials. **B.A. and B.F.A. core.**

**B.A. Prerequisites:** ART 120, 130, 201. **B.F.A. Prerequisites:** ART 120, 130, 220, 225, 230. **Four hours per week.**

261. SCULPTURE I
3 hours credit
**Prerequisites:** ART 201.

**3 hours credit**
Exploration of the expressive qualities of form using the subtractive and additive processes. Students furnish their own materials. **B.A. Prerequisite:** ART 225. **B.F.A. Prerequisites:** 120, 130, 201, 220, 225, 230. **Four hours per week.**

265. WOOD SCULPTURE
3 hours credit
**Prerequisite:** ART 225. **B.F.A. Prerequisite:** ART 261.

**3 hours credit**
Introduction to various woods, tools and sculpting techniques in a studio setting. Students must furnish materials. **B.A. Prerequisite:** ART 225. **B.F.A. Prerequisite:** ART 261. **Four hours per week.**

271. GLASS I
3 hours credit
**Prerequisites:** ART 120, 130, 225. **B.F.A. Prerequisites:** ART 120, 130, 201, 220, 225, 230. **Eight hours per week.**

300. HISTORY OF MODERN ART TO 1945
3 hours credit
Survey of the principal movements comprising the modern tradition in art, including Impressionism, Post-Impressionism, Symbolism, Fauvism, Cubism, Expressionism, Abstract Art, Dada and Surrealism. Emphasis on new theories redefining the concept, form and purpose of art, the persona of the artist, and the relation of art to the social and political order. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: Permission of instructor for non-majors. **Three hours per week.**

301. NORTHERN RENAISSANCE ART
3 hours credit
Study of the art of Northern Europe, from the late 14th to the end of the 16th century, in relation to the larger historical, religious, social, economic and cultural contexts of this period. Focus is primarily on painting and printmaking. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: ART 104 or ART 201 or permission of instructor. **Three hours per week.**

302. HISTORY OF AMERICAN ART: THE COLONIAL PERIOD TO 1900
3 hours credit
Survey of American painting, sculpture and architecture from the Colonial period to the end of the 19th century. Topics include the historical, social and cultural contexts of American art, the work and ideas of major artists, and the development of a national identity in American art. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: Permission of instructor for non-majors. **Three hours per week. Meets General Education IB.**

303. HISTORY OF AMERICAN ART: THE 20TH CENTURY
3 hours credit
Survey of the visual arts, primarily painting and sculpture, in the United States from the turn of the century to the present. Topics include the historical and social contexts of this art, the world and ideas of major artists, and the emergence of an American avant-garde after World War II. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: Permission of instructor for non-majors. **Three hours per week. Meets General Education IB.**

304. DUTCH AND FLEMISH 17TH CENTURY PAINTING
3 hours credit
Consider the style, subject matter and purposes of 17th century Dutch and Flemish painting in relation to the very different political, religious, social and economic conditions of the Dutch Republic and Flanders. Covers such major and influential artists as Rembrandt, Rubens, Vermeer and Frans Hals, the development of new subject matter (especially landscape, genre and still life), and changes in art patronage. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: ART 104 or ART 201 or permission of instructor. **Three hours per week.**

305. ART SINCE 1945
3 hours credit
Survey of major art movements in the United States and Europe since World War II, including key theoretical writings by artists and critics. Topics include the public persona of the artist, new ideas about the concept, form, purpose and interpretation of art, its relation to other disciplines, and its legitimization through arts organizations and the marketplace. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: Permission of the instructor for non-majors. **Three hours per week.**

306. HISTORY OF GREEK AND ROMAN ART
3 hours per week
Survey of ancient Greek and Roman art and architecture, beginning with the emergence of Greek civilization in the ninth century B.C. and ending with the fall of the Roman empire. Considers the style, subject matter and varied purposes of Greek and Roman art in relation to the changing historical, social and cultural contexts of this era. **B.A. and B.F.A. Prerequisite:** ART 201. Non-major Prerequisite: ART 104 or ART 201 or permission of instructor. **Three hours per week.**
310. HISTORY OF ITALIAN RENAISSANCE ART  
3 hours credit  
Survey of painting, sculpture and architecture in the principal art centers of Italy during the 15th and 16th centuries. Covers the work and influence of several generations of major artists in relation to the larger historical, social and cultural contexts of this era. B.A. and B.F.A. Prerequisite: ART 201. Non-major Prerequisite: Permission of instructor for non-majors. Three hours per week.

312. WEB DESIGN  
3 hours credit  
Introduction to Web site design for creating visual materials on a microcomputer. Students create artistic “WWW pages,” work on group assignments and publish collective work as a hyperlink to the home pages of the Art Department and/or other campus offices. B.A. Prerequisite: ART 227. B.F.A. Prerequisites: ART 226 or 227, and 201. Non-major Prerequisite: COSC 116 or permission of the instructor. Four hours per week.

313. INTERACTIVE ANIMATION  
3 hours credit  
Introduction to interactive animation on a microcomputer. Learn to design animated, audiovisual content. Instruction in computer illustration and in the mechanics of motion graphics results in content suitable for publication on the Web and stand-alone presentation on compact disc. B.A. Prerequisite: ART 326 or permission of the instructor. B.F.A. Prerequisites: ART 227 or 326, and 201 or permission of instructor. Non-major Prerequisites: COSC 116 and permission of the instructor. Four hours per week.

315. CERAMICS II  
3 hours credit  
Introduction to the elements and principles of designing and making pottery using the wheel throwing process. Students furnish their own materials. Prerequisite: ART 215. Four hours per week.

318. BOOK ARTS  
3 hours credit  
Introduction to the handmade, one-of-a-kind “artist’s book” as a sculptural medium and creative art form. Explores various bookbinding techniques and both traditional and nontraditional materials, including those used in other art media. Encourages students to draw upon their work in other art courses and fields of study in the design, structure and content of their books. B.A. Prerequisite: ART 225. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230. Four hours per week.

325. GRAPHIC DESIGN II  
3 hours credit  
Introduction to historic and contemporary typographic forms and to the integration of print and interface design for aesthetic and expressive purposes. Using more advanced software, students learn to design direct mail campaigns and promotional materials to establish corporate or product identity. Prerequisite: ART 226. Four hours per week.

328. ILLUSTRATION  
3 hours credit  
Students learn how to conceptualize and create images that communicate narrative or editorial content, using a variety of image-making techniques, including photo-imaging, computer-aided drawing, plus various traditional arts media. B.A. Prerequisite: ART 226. B.F.A. Prerequisite: ART 226 or 227. Three hours per week.

329. PHOTOGRAPHY II  
3 hours credit  
Continuation of aesthetic and experimental photography. Expands lab and field processes learned in Photography I and emphasizes personal expression. Topics include filters, flash, studio and darkroom techniques, Kodalith and multiple image. Students furnish their own cameras, film, paper and filters. Prerequisites: ART 229; B.F.A.-ART 229, completion of 21 hours of B.F.A. core. Four hours per week.

330. DRAWING III  
3 hours credit  
Continuation of advanced monochromatic and polychromatic drawing techniques using wet and dry media, creating thesis-type projects. Students furnish their own materials. Prerequisite: ART 230. Four hours per week.

335. WOMEN IN ART  
3 hours credit  
Study of the art of selected women artists in relation to the historical and social contexts in which they worked and the professional opportunities available to them. Also examines how women have been represented in art, and how these images shape, reinforce or challenge society’s beliefs about women and feminine gender roles. B.A. and B.F.A. Prerequisite: ART 201. Non-major Prerequisite: Permission of instructor. Three hours per week.

340. PAINTING II  
3 hours credit  
Study of selected media chosen by the student, with attention to special techniques and problems. Students furnish their own materials. Prerequisite: ART 246. Four hours per week.

350. PRINTMAKING: LITHOGRAPHY  
3 hours credit  
Introduction to the principles of lithographic printing through the study of historical elements and practical processes. Various monochromatic lithographic printing techniques explored. Students furnish their own materials. B.A. Prerequisites: ART 120, 130. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230. Four hours per week.

351. PRINTMAKING: ETCHING  
3 hours credit  
Introduction to the principles of the fine art methods of intaglio printing through the study of historical elements and practical processes. Various monochromatic etching techniques explored. Students furnish their own materials. B.A. Prerequisites: ART 120, 130. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230. Four hours per week.

352. PRINTMAKING: SILKSCREEN  
3 hours credit  
Introduction to the principles of serigraphic printing through the study of historical elements and practical processes. Various monochromatic and polychromatic silkscreen printing techniques explored. Students furnish their own materials. B.A. Prerequisites: ART 120, 130. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230. Four hours per week.

353. PRINTMAKING: RELIEF  
3 hours credit  
Introduction to the principles of relief printing through the study of historical elements and practical processes. Various monochromatic and polychromatic relief printing techniques explored. Students furnish their own materials. B.A. Prerequisites: ART 120, 130. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230. Four hours per week.

355. DIGITAL IMAGING  
3 hours credit  
Introduction to digital imaging software and processes. Students will use photographs as well as original works in other media to create high quality digital prints, from black and white to full color. Emphasis will be placed on aesthetic content as well as technical proficiency. B.A. and B.F.A. Prerequisites: ART 120, 130 and 229. Four hours per week.
361. SCULPTURE II
3 hours credit
Study of the sculpture techniques of welding, casting and hand building. Students furnish their own materials. Prerequisites: B.A.-ART 215, 261; B.F.A.-ART 215, 261 and completion of 21 hours of the B.F.A. core. Four hours per week.

371. GLASS II
3 hours credit
Refinement of introductory glass-working techniques and processes, plus demonstrations of more advanced hot-glass processes, cold methods and color techniques. Focuses on studio maintenance and construction of equipment. Students must furnish safety apparel and any materials not covered by the lab fee. Prerequisite: ART 271. Eight hours per week.

390. ADVANCED STUDY IN ART
1-3 hours credit
Advanced study in one or a combination of studio disciplines or art history. Students furnish their own materials. B.A. Prerequisites: Completion of core and all regularly scheduled courses in thesis area; approval of the department chair prior to registration. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230.

391. SPECIAL TOPICS IN ART HISTORY
3 hours credit
Intensive study, including research, of a particular topic in art history. May be taken twice under different subtitles. B.A. and B.F.A. Prerequisite: ART 201. Non-major Prerequisite: ART 104 or ART 201 or permission of instructor. Three hours per week.

395. SPECIAL TOPICS IN ART
1-3 hours credit
Intensive study of a selected area in studio art that includes research. May be taken twice for credit with different subtitles. Students furnish their own materials. B.A. Prerequisites: ART 120, 130, 201. B.F.A. Prerequisites: ART 120, 130, 220, 225, 230.

399. INTERNATIONAL FIELD STUDY
3-6 hours credit
Travel and study of art, geography, history and culture of selected countries. Pre-tour lectures and other activities required. May be repeated once for credit. Prerequisite: Permission of instructor. Meets General Education IB.

415. CERAMICS III
3 hours credit
Presentation of advanced techniques in wheel throwing, clay assembly and kiln firing. Students furnish their own materials. Prerequisites: B.A.-ART 315; B.F.A.-ART 315, completion of 21 hours of the B.F.A. core. Four hours per week.

416. ADVANCED CERAMICS
3 hours credit
Survey of the history, theory and practice of ceramics in a studio setting. Each student investigates and presents a seminar report on an individually chosen area of ceramic art followed by the practical application of discoveries via individual art works. This course may be repeated twice for credit. Prerequisite: B.A./B.F.A.-ART 415. Four hours per week.

420. PHOTOGRAPHY III
3 hours credit
Study of color photography using transparency (slide) film. Practical applications include film selection, exposure and use of color in composition. Discussions of various types of color films and processes and of the history of color. Students furnish their own cameras and most supplies. Prerequisites: B.A.-ART 329; B.F.A.-ART 329, completion of 21 hours of the B.F.A. core. Four hours per week.

426. GRAPHIC DESIGN III
3 hours credit
Using specialized software, students learn how to apply graphic design principles and techniques to the design of three-dimensional packages for consumer products. These package designs must also take into account specific marketing goals. Prerequisites: B.A.-ART 326; B.F.A.-ART 326, completion of 21 hours of the B.F.A. core. Four hours per week.

427. GRAPHIC DESIGN IV
3 hours credit
Students are encouraged to develop their own artistic identity as designers and to refine their portfolios as they work on a variety of advanced promotional, marketing and public service projects. Projects for real clients are introduced on a limited basis. Prerequisite: ART 426. One hour lecture/seminar, 10 or more hours internship per week.

428. ADVANCED STUDY IN THREE-DIMENSIONAL DESIGN
3 hours credit
Creative study and critical analysis of three-dimensional forms in clay and other materials based on a variety of two-dimensional themes. Prerequisites: ART 130, 215, 225. Four hours per week.

429. ADVANCED PHOTOGRAPHY
3 hours credit
Study of advanced techniques to develop a personal aesthetic, artistic and professional style. Use of 4 x 5 view cameras and other advanced techniques. Projects of photo-essay form, designed to build students' portfolios. Students furnish their own cameras, film and paper. This course may be repeated twice for credit. Prerequisites: B.A.-ART 329; B.F.A.-ART 329, completion of 21 hours of the B.F.A. core. Four hours per week.

430. DRAWING IV
3 hours credit
Study of advanced monochromatic and polychromatic drawing techniques using wet and dry media with special attention given to ongoing thematic projects. Students furnish their own materials. Prerequisites: B.A.-ART 330, completion of 21 hours of the B.F.A. core. Four hours per week.

431. ADVANCED DRAWING
3 hours credit
Continued study in studio problems associated with drawing. Focus on the development of a portfolio and a series of papers based on a selected list of readings. This course may be repeated twice for credit. Prerequisite: ART 430. Four hours per week.

440. PAINTING III
3 hours credit
Study of watercolor, oil, acrylic or media substitute. Focus on painting and critiques. Prerequisites: B.A.-ART 340; B.F.A.-ART 340, completion of 21 hours of the B.F.A. core. Four hours per week.

441. PAINTING IV
3 hours credit
Advanced experience requiring an individual theme and goals using one of the following media: watercolor, oil, acrylic or agreed upon substitute. Development of a professional portfolio. Sketch books and written papers required. Students furnish their own materials. Prerequisite: ART 440. Four hours per week.

442. ADVANCED PAINTING
3 hours credit
Continued study in studio problems associated with painting. Focus on the development of a portfolio and a series of papers based on a selected list of readings. This course may...
185. INTRODUCTION TO ATHLETIC TRAINING
3 hours credit
Introduction to the educational and professional requirements necessary to become a certified athletic trainer. Exposure to the daily operations of an athletic training facility and the job responsibilities of all members of a sports medicine team. Prerequisite: 15 credits of college-level work. Three hours per week.

213. PREVENTION AND TREATMENT OF ATHLETIC INJURIES
3 hours credit
Analysis of the importance of training in preventing injuries, diagnosis and treatment of injuries, first aid techniques and procedures. May not receive credit for both PHEC 313 and ATTR 213. Prerequisites: ATTR 185, BIOL 215. Three hours per week. (fall semester only)

221. ATHLETIC TRAINING PROFICIENCIES I
3 hours credit
Teaches detailed procedures necessary for completion of athletic injury evaluation and documentation. Prerequisite: Admission to Athletic Training Program. One hour lecture, 12 hours of clinical practice per week.

222. ATHLETIC TRAINING PROFICIENCIES II
3 hours credit
Teaches detailed procedures necessary for completion of upper body athletic injury evaluation and therapeutic modality usage. Prerequisite: Admission to Athletic Training Program and ATTR 213. One hour lecture, 12 hours clinical practice per week.

321. ATHLETIC TRAINING PROFICIENCIES III
3 hours credit
Teaches detailed procedures necessary for completion of evaluation of general medical condition and organization and administration in athletic training. Prerequisite: Admission to the Athletic Training Program, ATTR 380, 381. One hour lecture, 12 hours clinical practice per week.

322. ATHLETIC TRAINING PROFICIENCIES IV
3 hours credit
Teaches detailed procedures necessary for completion of evaluation of general medical condition and organization and administration in athletic training. Prerequisite: Admission to the Athletic Training Program, ATTR 407, 410. One hour lecture, 12 hours clinical practice per week.

380. THERAPEUTIC MODALITIES
4 hours credit
Study of modalities used in athletic training. Topics include physics, physiological effects, indications and contra-indications, and ways pain interpretation affects the modality chosen. Prerequisite: Admission to Athletic Training Program. Three hours lecture, two hours laboratory per week.

381. ORTHOPEDIC ASSESSMENT
4 hour credit
Teaches detailed evaluation skills necessary for assessment of upper body athletic injuries. Prerequisites: Admission to the Athletic Training Program. Three hours lecture, two hours laboratory per week.

407. ADMINISTRATION AND ORGANIZATION FOR ATHLETIC TRAINING
3 hours credit
Develops an understanding of administrative structure, policies and procedures for athletic training programs in various settings. Major prerequisite: Admission to Athletic Training Program, Non-major prerequisite: Permission from the Athletic Training Program Director. Three hours per week.

410. THERAPEUTIC EXERCISE IN ATHLETIC TRAINING
4 hours credit
Theories and concepts essential in conditioning, reconditioning and rehabilitation of athletic injuries. Students gain an understanding of trauma and the healing process and how these affect decisions made in the initiation and progression of a rehabilitation program. Prerequisite: ATTR 381. Corequisite: ATTR 321. Three hours lecture, two hours laboratory per week.
413. ADVANCED ATHLETIC TRAINING  
3 hours credit  
Develops advanced knowledge of athletic injuries after the student has completed ATTR 213 or an equivalent.  
Prerequisite: ATTR 381. Corequisite: ATTR 321. Three hours per week. (fall semester only)

414. GENERAL MEDICAL CONDITIONS IN ATHLETIC TRAINING  
4 hours credit  
Teaches detailed evaluation skills necessary for assessment and recognition of general medical conditions and pharmacologic applications of the physically active. Prerequisite: Admission to the Athletic Training Program. Three hours lecture, two hours laboratory per week.

479. ATHLETIC TRAINING PRACTICUM  
12 hours credit  
Supervised internship in the area of athletic training provided opportunities for experiential learning at an advanced level. Students pursue full-time, professional assignments with an academic institution or in a clinical setting. Prerequisite: Completion of all athletic training major requirements, except ATTR 479.

513. ADVANCED ATHLETIC TRAINING  
3 hours credit  
Develops advanced knowledge of athletic injuries after the student has completed ATTR 213 or an equivalent. Prerequisites: ATTR 381, 382. Corequisite: ATTR 321. Three hours per week. (fall semester only)

514. GENERAL MEDICAL CONDITIONS IN ATHLETIC TRAINING  
3 hours credit  
Teaches detailed evaluation skills necessary for assessment and recognition of general medical conditions and pharmacologic applications of the physically active. Prerequisite: ATTR 413. Corequisite: ATTR 407. Three hours per week.

BIOL 101. FUNDAMENTALS OF BIOLOGY  
4 hours credit  
Introduces students to the principles inherent to life, with a broad overview of the cell, the organism and the community in which living things exist. Does not satisfy biology major requirements. Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

105. BIOLOGY AND SOCIETY  
3 hours credit  
Introduces the non-biology major to the broad principles, fundamental ideas and new discoveries in biology that significantly affect the human being's present and future existence. Relates the study of biology to the pressing social and cultural issues of today. Does not satisfy requirements within the major. Prerequisite: BIOL 101. Three hours per week. Meets General Education IIIB.

115. SAFETY IN THE BIOLOGICAL, CHEMICAL AND CLINICAL LABORATORY  
1 hour credit  
Review of laboratory safety. Summary of government laws and regulatory bodies and their effect on lab policy. Illustrations of proper procedures for laboratory hazards. Topics include chemicals, infectious microbes, animals, fire, electrical equipment, radiation, glassware and compressed gases. Training in the use of safety equipment and protective clothing and general first aid. Students may not receive credit for both BIOL 115 and MDTC 101. One hour per week.

210. BIOLOGY: CONCEPTS AND METHODS  
4 hours credit  
Introduction to the study of biology, focusing on how biologists know things and study the world of life, with emphases on cell biology, genetics, ecology and evolution. First course required for biology majors. Four hours lecture/laboratory, two hours online per week. Meets General Education IIIA.

211. MICROBIOLOGY  
4 hours credit  
Fundamental course in the study of microorganisms and their activity, with emphasis on bacteria. Prerequisite: BIOL 101 or 210 or 215. Two hours lecture, four hours laboratory per week. Meets General Education IIIB.

212. INTRODUCTION TO PLANT BIOLOGY  
4 hours credit  
Fundamental course exploring the diversity of plant life from an evolutionary perspective, the unique strategies that enable plants to grow, survive and reproduce in different environments, and the interactions between plants and other organisms. Designed for biology majors and other science students. Prerequisite: BIOL 210. Three hours lecture, three hours laboratory per week. Meets General Education IIIB.

213. ZOOLOGY  
4 hours credit  
Study of the biodiversity, structure and functions of animals and animal-like protists with emphasis on their evolutionary relationships. Designed for biology majors and minors and other science majors. Prerequisite: BIOL 210. Three hours lecture, three hours laboratory per week. Meets General Education IIIB or IIIB.

214. MEDICAL PHYSIOLOGY  
4 hours credit  
Presentation of human physiology at the cell and organ levels to include the nervous, skeletal muscular, cardiovascular, excretory, digestive, respiratory and endocrine systems. Emphasis on normal function and medical relevance. Students may not earn credit for BIOL 214 and MDTC 201. This course will not count for credit in the biology major. Prerequisite: BIOL 101 or 210. Three hours lecture, two hours laboratory per week.

215. HUMAN ANATOMY AND PHYSIOLOGY I  
4 hours credit  
Comprehensive study of the structure and function of the human organism, including the integumentary, skeletal, muscular, nervous and endocrine systems. Recommended Prerequisite: BIOL 101 or 213. Three hours lecture, three hours laboratory per week. Meets General Education IIIB or IIIB.

216. HUMAN ANATOMY AND PHYSIOLOGY II  
4 hours credit  
Comprehensive study of the structure and function of the human organism, including the circulatory, respiratory, digestive, urinary, immune and reproductive systems. Recommended Prerequisite: BIOL 215. Three hours lecture, three hours laboratory per week. Meets General Education IIIB.

217. NUTRITION  
3 hours credit  
Foundation in the science of nutrition, including biological and biochemical backgrounds for the understanding of nutritional requirements. Does not satisfy requirements within the major. Prerequisite: BIOL 101 or 210 or 215 or 216. Three hours per week. Meets General Education IIIB.

219. BIOLOGY OF HUMAN AGING  
3 hours credit  
Study of the effects of aging on the structure and functioning of the human body. Integrates biological aging with other
aspects of human existence. Includes discussions of diseases common among the elderly. May not be used to satisfy requirements within the biology major. Prerequisites: BIOL 101 or both BIOL 215 and 216. Three hours per week. Meets General Education III.B.

220. HUMANS AND THE ENVIRONMENT
4 hours credit
Interdisciplinary course in conjunction with the departments of Chemistry and Geography and Regional Planning, designed for non-science majors to develop awareness of ways earth's environment is influenced by human activities and effects of the environment on human society. May not be repeated for credit in the Chemistry or Geography and Regional Planning departments and may not be used to satisfy course requirements within the major. For students in the Honors Program, Three hours lecture, two hours laboratory per week. Meets General Education IIA or IIIB.

250. ECONOMIC BOTANY
3 hours credit
Study of the economic importance of plants, emphasizing the origin, domestication and usage of food and medicinal plants. Does not satisfy General Education III requirements. Prerequisite: BIOL 101 or 212. Three hours per week.

260. BIOLOGICAL DRAWING AND ILLUSTRATION
3 hours credit
Introduction to drawing and illustration techniques used in biology through slide lectures and discussions, class exercises and assigned projects using pencil, charcoal, pen and ink, scratchboard and color. Through these exercises, students will develop their observational skills and closely study biological subjects. Students furnish their own materials. ART 130 or some drawing experience is highly recommended. Prerequisite: BIOL 101 or 210. Four hours per week.

301. HISTORY AND LITERATURE OF BIOLOGY
2 hours credit
Introduction to the history and literature of biology. Special emphasis on the development of contemporary concepts and techniques of information retrieval. Prerequisite: BIOL 101 or 210. Two hours per week.

310. ECOLOGY
4 hours credit
Introduction to the interactions between organisms and their environment. Biotic and abiotic factors affecting individuals, populations, communities and ecosystems emphasized. May not be taken for credit if student has credit for BIOL 225. Prerequisites: BIOL 210 and BIOL 211 or 212 or 213 or 121 and 122. Three hours lecture, three hours laboratory per week.

312. PLANT TAXONOMY
3 hours credit
Classification of plants, with emphasis on the local flora. Prerequisite: BIOL 212. Two hours lecture, three hours laboratory per week.

313. COMPARATIVE ANATOMY
4 hours credit
Study of vertebrate body structures, emphasizing the progressive and adaptive changes that occurred in evolution. Prerequisite: BIOL 213. Three hours lecture, three hours laboratory per week.

316. GENERAL ENTOMOLOGY
3 hours credit
Study of the natural history, identification and life cycles of insects. Special reference to those species of medical and economic importance to people. Prerequisite: BIOL 213. Two hours lecture, three hours laboratory per week.

320. BIOLOGY OF THE VERTEBRATES
3 hours credit
Study of vertebrate animal life, including evolution, behavior, reproduction, thermoregulation, migration and conservation. Field trips emphasize wildlife biology, and identification and natural history of local species. Prerequisite: BIOL 213. Two hours lecture, three hours laboratory per week.

321. INVERTEBRATE ZOOLOGY
4 hours credit
Study of animals without backbones emphasizing functional morphology and physiological adaptations. Laboratory sessions focus on investigation of living and preserved specimens. Prerequisite: BIOL 213. Three hours lecture, three hours laboratory per week.

322. PARASITOLOGY
3 hours credit
Study of the important parasites of humans and domestic animals. Prerequisite: BIOL 213. Two hours lecture, three hours laboratory per week.

323. MEDICAL MICROBIOLOGY
4 hours credit
Study of the medically important microorganisms, including methodology and techniques of identification. Prerequisite: BIOL 211. Two hours lecture, four hours laboratory per week.

324. PLANT MORPHOLOGY
3 hours credit
Study of extinct and extant vascular plants, emphasizing evolutionary relationships, reproduction and vegetative organization. Prerequisite: BIOL 212. Two hours lecture, three hours laboratory per week. Meets General Education III.B.

325. PLANT ANATOMY
4 hours credit
Study of gross and microscopic plant structure, with special emphasis on higher plants. Prerequisite: BIOL 212. Three hours lecture, three hours laboratory per week. Meets General Education III.B.

333. IMMUNOLOGY
4 hours credit
Basic course dealing with the cellular and chemical aspects of immunity. Antigen-antibody reaction surveyed and its clinical laboratory implications thoroughly discussed. Prerequisite: BIOL 211. Two hours lecture, four hours laboratory per week.

334. PATHOPHYSIOLOGY
4 hours credit
Study of the causes, bodily changes, signs and symptoms, and mechanisms involved in common and serious human diseases. Prerequisites: BIOL 215, 216. Three hours lecture, two hours laboratory per week.

350. CELL BIOLOGY
4 hours credit
Focuses on the structure and function of eukaryotic cells. Topics covered include enzyme kinetics, membrane transport, cell signaling, intercellular protein trafficking, cellular respiration, mitosis and meiosis, the cell cycle, and cancer. Prerequisites: BIOL 210 and CHEM 221 or 12 credits of biology. Three hours lecture, three hours laboratory per week.

360. GENETIC ANALYSIS
4 hours credit
Introduction to genetic analysis including Mendelian principles, population and quantitative genetics, cytogenetics and contributions to molecular biology. Satisfies Biology Department core requirements for genetics. Recommended Prerequisite: MATH 155. Prerequisite: BIOL 210. Three hours lecture, three hours laboratory per week.
370. MOLECULAR GENETICS  
4 hours credit  
Study of mechanisms of heredity emphasizing organization of the genome, mutation and regulation of gene expression.  
Prerequisite: BIOL 350. Three hours lecture, three hours laboratory per week.

399. INTERNATIONAL FIELD STUDIES  
3 hours credit  
Students experience a specific aspect of a biological discipline in a foreign country. Pre-tour lectures, post-tour discussion and other activities required. Prerequisite: Permission of instructor. Fifteen hours pre-trip experience, at least 50 hours field activities over a minimum of 10 days, two-hour post-trip discussion session.

401. WETLAND ECOLOGY  
4 hours credit  
Study of relationships between environmental features and the structure and function of wetland types. Emphasizes hydrology, chemistry and plant species distribution and examines effects of disturbance on wetland ecosystems. Prerequisites: BIOL 212 and 310. Three hours lecture, three hours laboratory per week.

405. ORNITHOLOGY  
3 hours credit  
Study of birds. Topics include form and function, behavior and communication, reproduction, migration, ecology and conservation. Field trips emphasize identification and natural history of local species. Prerequisite: BIOL 213. Two hours lecture, three hours laboratory per week.

407. THE BIOLOGY OF FISHES  
3 hours credit  
Study of evolution, anatomy, physiology, classification, ecology and behavior of the fishes. Addresses current research and future directions in ichthyology. Prerequisite: BIOL 213. Three hours per week.

410. ESTUARINE BIOLOGY  
3 hours credit  
Introduction to the physical, chemical and geological characteristics of estuaries with emphasis on East Coast estuaries such as the Chesapeake Bay. Detailed discussion of the biological and chemical processes important in estuarine ecosystems with a major emphasis on current literature and research in estuarine biology. Prerequisite: BIOL 310. Three hours per week.

411. VERTEBRATE EMBRYOLOGY  
4 hours credit  
Comparative study of vertebrate embryology including evolutionary relationships and topics in molecular and developmental biology. Prerequisites: BIOL 213, 350. Two hours lecture, four hours laboratory per week.

412. ALGAE, FUNGI AND BRYOPHYTES  
4 hours credit  
Study of the phylogenetic and ontogenetic development and ecological importance of non-vascular plants. Prerequisite: BIOL 212. Three hours lecture, three hours laboratory per week.

415, 416. RESEARCH IN BIOLOGY  
3 hours credit each  
Independent student research under the supervision of a faculty member. BIOL 416 may not be used to satisfy requirements within the major. Prerequisite: Permission of instructor. Schedule to be arranged individually.

418, 419. BIOLOGY SEMINAR  
1 hour credit each  
Discussions of timely topics in biology and related fields. Includes instruction in seminar preparation and requires student presentations and participation. BIOL 419 may not be used to satisfy course requirements within the major. Prerequisite: Junior standing or permission of instructor. One hour per week.

420. READINGS IN BIOLOGY  
1-3 hours credit  
Readings designed to permit in-depth study of selected topics. Students submit written reports of their findings at the end of the semester. Specific topics are indicated on students’ transcripts. Prerequisites: Sixteen credits in biology, permission of instructor.

422. VERTEBRATE PHYSIOLOGY  
4 hours credit  
Study of the physiological processes of vertebrate animals including specific adaptations of certain species to their environment. Prerequisites: BIOL 213, 350, CHEM 121. Three hours lecture, three hours laboratory per week.

425. TOXICOLOGY  
3 hours credit  
Introduction to basic principles, history and scope of modern environmental toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with ENVH 425. May not be taken for credit if student has credit for ENVH 425. Prerequisite: Permission of instructor or junior standing, eight credits of biology, eight credits of chemistry. Three hours per week.

430. PLANT PHYSIOLOGY  
4 hours credit  
Advanced study of the physiological mechanisms utilized by plants with special reference to the higher phyla. Prerequisites: BIOL 212, CHEM 221. Three hours lecture, three hours laboratory per week.

433. ENVIRONMENTAL MICROBIOLOGY  
4 hours credit  
Study of the diversity and interactions of microorganisms in their natural environments. Emphasis on habitat and metabolic diversity, community interactions and industrial applications involving microbes. Prerequisites: BIOL 211, 350. Three hours lecture, three hours laboratory per week.

435. EVOLUTIONARY BIOLOGY  
3 hours credit  
Advanced study of the principles, mechanisms and processes of biological evolution. Prerequisite: BIOL 350. Three hours per week.

440. CONTEMPORARY GENETICS  
4 hours credit  
Blended lecture and laboratory-based exploration of biochemical techniques commonly used in industrial and academic laboratories. Demonstrates the relationship between structure and function of biomolecules. Cross-listed with CHEM 419. May not receive credit for both BIOL 440 and CHEM 419. Prerequisites: BIOL 350 and 370, and CHEM 221; or pre/corequisite CHEM 418. Six hours per week.

445. VIROLOGY  
3 hours credit  
Study of structure, replication and pathogenesis of viruses with emphasis on animal viruses and the role of viruses in our current understanding of cell and molecular biology. Prerequisite: BIOL 350. Three hours per week.

450. INTERNSHIP  
1-3 hours credit  
Experiences in biology-related work provide students with an opportunity to use acquired biological knowledge in a professional way and to investigate potential career options. Under special circumstances this course may be taken a second
BIOLOGY

400. BIOLOGY OF PLANT MEMBRANES
3 hours credit
Advanced course exploring the biology of plant membranes. Prerequisite: BIOL 350. Graduate standing and permission of the instructor.

401. MODERN CONCEPTS IN PLANT BIOLOGY
3 hours credit
Study of the most recent developments in plant biology, with special emphasis on genetics, anatomy, physiology and environmental principles. Prerequisite: BIOL 370. Graduate standing and permission of the instructor.

402. BIOLOGY AND ENSUING ENVIRONMENT
3 hours credit
Study of organisms as integral parts of their environment. Prerequisite: Degree in biology or permission of instructor. Graduate standing and permission of the instructor.

403. CONTEMPORARY PLANT BIOLOGY
3 hours credit
Intensive study of the developments in cell biology, with application to the pressing problems of today. Prerequisite: Degree in biology or permission of instructor. Graduate standing and permission of the instructor.

404. PERSPECTIVES IN MODERN GENETICS
3 hours credit
Advanced study of the physiological mechanisms utilized by plants with special reference to the higher phyla. Prerequisites: Graduate standing and permission of the instructor. Three hours lecture, three hours laboratory per week.

405. ORNITHOLOGY
3 hours credit
Study of birds. Topics include form and function, behavior and communication, reproduction, migration, ecology and conservation. Field trips emphasize identification and natural history of local species. Prerequisites: Graduate standing and permission of the instructor. Two hours lecture, three hours laboratory per week.

500. WETLAND ECOLOGY
4 hours credit
Study of the diversity and interactions of microorganisms in their natural environments. Emphasis on habitat and metabolic diversity, community interactions and industrial importance organelles allow cells and organisms to adapt to severe, inhospitable or constantly changing physical environments. Prerequisite: BIOL 350. Three hours per week. Meets General Education III.B.

501. MODERN CONCEPTS IN BIOLOGY
3 hours credit
Study of applied aspects of biology with an emphasis on DNA technology. Recommended as a capstone course for biology majors in the cell and molecular biology/biotechnology track. Prerequisite: BIOL 370. Three hours per week.

502. BIOLOGY AND ENVIRONMENT
3 hours credit
Study of organisms as integral parts of their environments, including field studies involving applications of environmental principles. Prerequisite: Degree in biology or permission of instructor. Two hours lecture, two hours laboratory per week.

503. CONTEMPORARY CELL BIOLOGY
3 hours credit
Intensive study of the latest findings in cell biology, with application to the pressing problems of today. Prerequisite: Degree in biology or permission of instructor. Three hours per week.

504. PERSPECTIVES IN MODERN GENETICS
3 hours credit
Advanced study of the physiological mechanisms utilized by plants with special reference to the higher phyla. Prerequisites: Graduate standing and permission of the instructor. Three hours lecture, three hours laboratory per week.

505. ENVIRONMENTAL MICROBIOLOGY
4 hours credit
Study of the diversity and interactions of microorganisms in their natural environments. Emphasis on habitat and metabolic diversity, community interactions and industrial importance organelles allow cells and organisms to adapt to severe, inhospitable or constantly changing physical environments. Prerequisite: BIOL 350. Three hours per week. Meets General Education III.B.

506. SPECIAL TOPICS IN BIOLOGY
1-4 hours credit
Study of a specific area of biological science. Topic varies semester to semester. May be taken twice for credit under different subtitles. Prerequisites: Permission of instructor or 16 credits of biology, junior standing.

507. THE BIOLOGY OF FISHES
3 hours credit
Study of the diversity and interactions of microorganisms in their natural environments. Emphasis on habitat and metabolic diversity, community interactions and industrial importance organelles allow cells and organisms to adapt to severe, inhospitable or constantly changing physical environments. Prerequisite: BIOL 350. Three hours per week. Meets General Education III.B.

508. HONORS
3 hours credit
Independent study in an area of biology leading to an honors thesis. Prerequisite: Approval of department chair.

509. BIOLOGY OF PLANT MEMBRANES
3 hours credit
Advanced course exploring the biology of plant membranes. Prerequisite: BIOL 350. Graduate standing and approval of Internship Coordinator.

510. ESTUARINE BIOLOGY
3 hours credit
Study of estuarine biology with a focus on the Chesapeake Bay. Detailed discussion of the biota of the bay, its unique biology and current perturbations due to environmental pollution. Introduction to physical and chemical processes of estuaries. Prerequisites: Graduate standing and permission of the instructor. Two hours lecture, two hours laboratory per week.

511. RESEARCH IN BIOLOGY
1-3 hours credit
Independent student research under the supervision of a faculty member. Students may register for BIOL 515 more than once up to a maximum of six credit hours. Prerequisites: Graduate standing and permission of instructor. Schedule to be arranged individually.

512. VERTEBRATE PHYSIOLOGY
4 hours credit
Study of the physiological processes of vertebrate animals including specific adaptations of certain species to their environment. Prerequisites: Graduate standing or permission of instructor. One hour per week.

513. TOXICOLOGY
3 hours credit
Introduction to basic principles, history and scope of modern environmental toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with ENVH 425. Prerequisites: Junior standing, biology major and approval of internship coordinator. Forty-five student contact hours per credit hour. (P/F)

514. BIOTECHNOLOGY
3 hours credit
Study of applied aspects of biology with an emphasis on DNA technology. Recommended as a capstone course for biology majors in the cell and molecular biology/biotechnology track. Prerequisite: BIOL 370. Three hours per week.

515. RESEARCH IN BIOLOGY
1-3 hours credit
Independent student research under the supervision of a faculty member. Students may register for BIOL 515 more than once up to a maximum of six credit hours. Prerequisites: Graduate standing and permission of instructor. Schedule to be arranged individually.

516. BIOLOGY SEMINAR
1 hour credit each
Discussions of timely topics in biology and related fields. Includes instruction in seminar preparation and requires student presentations and participation. BIOL 419 may not be used to satisfy course requirements within the major. Prerequisite: Graduate standing or permission of instructor. One hour per week.

517. BIOLOGY OF PLANT MEMBRANES
3 hours credit
Advanced course exploring the biology of plant membranes. Prerequisite: BIOL 350. Graduate standing and approval of Internship Coordinator.

518. BIOLOGY SEMINAR
1 hour credit each
Discussions of timely topics in biology and related fields. Includes instruction in seminar preparation and requires student presentations and participation. BIOL 419 may not be used to satisfy course requirements within the major. Prerequisite: Graduate standing or permission of instructor. One hour per week.

519. BIOLOGY SEMINAR
1 hour credit each
Discussions of timely topics in biology and related fields. Includes instruction in seminar preparation and requires student presentations and participation. BIOL 419 may not be used to satisfy course requirements within the major. Prerequisite: Graduate standing or permission of instructor. One hour per week.

520. VERTEBRATE PHYSIOLOGY
4 hours credit
Study of the physiological processes of vertebrate animals including specific adaptations of certain species to their environment. Prerequisites: Graduate standing or permission of instructor. One hour per week.

521. TOXICOLOGY
3 hours credit
Introduction to basic principles, history and scope of modern environmental toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with ENVH 425. May not be taken for credit if student has credit for ENVH 425. Prerequisites: Junior standing, biology major and approval of internship coordinator. Forty-five student contact hours per credit hour. (P/F)

522. VERTEBRATE PHYSIOLOGY
4 hours credit
Study of the physiological processes of vertebrate animals including specific adaptations of certain species to their environment. Prerequisites: Graduate standing or permission of instructor. One hour per week.

523. ENVIRONMENTAL MICROBIOLOGY
4 hours credit
Study of the diversity and interactions of microorganisms in their natural environments. Emphasis on habitat and metabolic diversity, community interactions and industrial importance organelles allow cells and organisms to adapt to severe, inhospitable or constantly changing physical environments. Prerequisite: BIOL 350. Three hours per week. Meets General Education III.B.

524. SPECIAL TOPICS IN BIOLOGY
1-4 hours credit
Study of a specific area of biological science. Topic varies semester to semester. May be taken twice for credit under different subtitles. Prerequisites: Permission of instructor or 16 credits of biology, junior standing.

525. TOXICOLOGY
3 hours credit
Introduction to basic principles, history and scope of modern environmental toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with ENVH 425. May not be taken for credit if student has credit for ENVH 425. Prerequisites: Junior standing, biology major and approval of internship coordinator. Forty-five student contact hours per credit hour. (P/F)

526. VERTEBRATE PHYSIOLOGY
4 hours credit
Study of the physiological processes of vertebrate animals including specific adaptations of certain species to their environment. Prerequisites: Graduate standing or permission of instructor. One hour per week.

527. TOXICOLOGY
3 hours credit
Introduction to basic principles, history and scope of modern environmental toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with ENVH 425. May not be taken for credit if student has credit for ENVH 425. Prerequisites: Junior standing, biology major and approval of internship coordinator. Forty-five student contact hours per credit hour. (P/F)

528. VERTEBRATE PHYSIOLOGY
4 hours credit
Study of the physiological processes of vertebrate animals including specific adaptations of certain species to their environment. Prerequisites: Graduate standing or permission of instructor. One hour per week.

529. TOXICOLOGY
3 hours credit
Introduction to basic principles, history and scope of modern environmental toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with ENVH 425. May not be taken for credit if student has credit for ENVH 425. Prerequisites: Junior standing, biology major and approval of internship coordinator. Forty-five student contact hours per credit hour. (P/F)

530. PLANT PHYSIOLOGY
4 hours credit
Advanced study of the physiological mechanisms utilized by plants with special reference to the higher phyla. Prerequisites: Graduate standing and permission of the instructor. Three hours lecture, three hours laboratory per week.

531. PLANT PHYSIOLOGY
4 hours credit
Advanced study of the physiological mechanisms utilized by plants with special reference to the higher phyla. Prerequisites: Graduate standing and permission of the instructor. Three hours lecture, three hours laboratory per week.

532. PLANT PHYSIOLOGY
4 hours credit
Advanced study of the physiological mechanisms utilized by plants with special reference to the higher phyla. Prerequisites: Graduate standing and permission of the instructor. Three hours lecture, three hours laboratory per week.

533. ENVIRONMENTAL MICROBIOLOGY
4 hours credit
Study of the diversity and interactions of microorganisms in their natural environments. Emphasis on habitat and metabolic diversity, community interactions and industrial importance organelles allow cells and organisms to adapt to severe, inhospitable or constantly changing physical environments. Prerequisite: Degree in biology or nursing; or permission of instructor. Three hours per week.
applications involving microbes. Prerequisites: Graduate standing and permission of the instructor. Three hours lecture, three hours laboratory per week.

535. EVOLUTIONARY BIOLOGY
3 hours credit
Advanced study of the principles, mechanisms and processes of biological evolution. Prerequisites: Graduate standing and permission of the instructor. Three hours per week.

540. CONTEMPORARY GENETICS
4 hours credit
Blended lecture and laboratory-based exploration of biochemical techniques commonly used in industrial and academic laboratories. Demonstrates the relationship between structure and function of biomolecules. Cross-listed with CHEM 419. May not receive credit for both BIOL 540 and CHEM 419. Prerequisites: Graduate standing and permission of the instructor. Six hours per week.

545. VIROLOGY
3 hours credit
Study of structure, replication and pathogenesis of viruses with emphasis on animal viruses and the role of viruses in our current understanding of cell and molecular biology. Prerequisites: Graduate standing and permission of the instructor. Three hours per week.

552. ADVANCED HUMAN PHYSIOLOGY/ PATHOPHYSIOLOGY
3 hours credit
Advanced study of system-focused physiology and pathophysiology. Analyzes the relationship between normal physiology and pathological phenomena produced by altered health states across the life span. Emphasis is on application in the clinical areas of practice. Prerequisite: B.S. in biology, health-related field or education with biology emphasis. Three hours per week.

560. BIOLOGY OF CELL MEMBRANES
3 hours credit
Advanced course exploring the biology of bacterial, plant and animal cell membranes with an emphasis on how these important organelles allow cells and organisms to adapt to severe, inhospitable or constantly changing physical environments. Prerequisites: Graduate standing and permission of instructor. Three hours per week.

590. SPECIAL TOPICS IN BIOLOGY
1-4 hours credit
Study of a specific area of biological science. Topic varies semester to semester. May be taken twice for credit under different subtitles. Prerequisites: Graduate standing and permission of the instructor. Three hours per week.

103. INTRODUCTION TO BUSINESS
3 hours credit
Introduction to the internal and external environment of contemporary business. Topics include the nature of business and its operations and a survey of basic concepts, principles and practices. Provides a foundation for advanced study and assistance in making career decisions. Not open to students who are concurrently enrolled in, or have received academic credit for, any 300- or 400-level BUAD/ACCT/FINA/INFO/MGMT/MKTG courses. Three hours per week.

338. SPECIAL BUSINESS TOPICS
3 hours credit
Advanced study of varying business topics based on students’ interests and needs. May be repeated once for credit under different subtitle. May substitute for a concentration elective depending on the topic (see director of undergraduate studies). Prerequisite: Varies by topic. Three hours per week.

345. PURCHASING AND MATERIALS MANAGEMENT
3 hours credit
Examination of the procurement and materials management function of government and industry including planning, acquisition, storage, physical movement and control of materials. Prerequisites: BUAD or MGMT 320 and BUAD or MKTG 330. Three hours per week.

360. GOVERNMENT REGULATION OF BUSINESS
3 hours credit
Business function under the regulatory bodies of all levels of government. Federal, state and local government requirements for business operations are covered as well as their effect on the economic operation of the enterprise. Prerequisites: ECON 211, 212. Three hours per week.

386. BUSINESS IN ITS GLOBAL SETTING
3 hours credit
Study of the international aspects of business management and its cultural, economic and political environment in its actual setting. Topics include the economics of international trade, sociocultural environment, political risk and other major aspects of international business operations (e.g., finance, management, marketing, etc.). Part or all of the course will be held in another country. Prerequisites: Junior standing and permission of instructor. Three hours per week.

400. BUSINESS STUDENT PROFESSIONAL PORTFOLIO
0 hours credit
Designed for students majoring within the Perdue School of Business. Students demonstrate their professional skills and knowledge through participation in a series of assessment activities. Completion of the Core Business Knowledge Exam and participation in Student Assessment Center activities are required to pass the course. Sessions vary in duration, depending on the activities involved, which are subject to change. Corequisite: MGMT 492. Hours per week vary.

490. BUSINESS INTERNSHIP
3 hours credit
Intern experience in business or government. May be used as a business concentration/track elective if approved by the school dean. Prerequisites: Junior or senior status; business, accounting, management information systems or economics major; placement and approval by the ABLE program director.

491. ADVANCED BUSINESS INTERNSHIP
3 hours credit
Research associated with an internship experience in business or government. Prerequisites/Corequisites: BUAD 490 and approval of the ABLE program director.
494. DIRECTED STUDY IN BUSINESS/ACCOUNTING/ISMN
1-3 hours credit
For students who desire to do research or pursue a special topic in business administration. Prerequisites: Junior/senior status and permission of instructor prior to registration.

530. GRADUATE SURVEY OF QUANTITATIVE ANALYSIS
3 hours credit
Introduction to the decision-making tools and techniques for making operational, administrative and upper management-level decisions. Mathematical and statistical models applied to managerial decision-making situations. Prerequisites: Provisional status in M.B.A. program and MATH 160 and INFO 111 or equivalent. Three hours per week.

615. RESEARCH METHODOLOGY
3 hours credit
Designed to develop techniques and methods for research. Includes identifying and defining managerial problems, reviewing the literature and stating problems in terms of testable hypotheses and methods of testing hypotheses. Major research paper required. Prerequisite: Admission to M.B.A. program. Three hours per week.

685. INTERNATIONAL BUSINESS SEMINAR
3 hours credit
Study of international aspects of business management and the environment of international business. Topics selected from international finance, the economics of international finance, the economics of international trade, environmental factors (e.g., cultural, legal, political) and the major aspects of business operations in the global environment (including accounting, human resource management, marketing, production and strategic management). Prerequisite: Admission to M.B.A. program. Three hours per week.

686. GLOBAL BUSINESS
3 hours credit
Study of the global aspects of business within its environment. Topics selected from international finance, the economics of international trade, environmental factors (e.g., cultural, legal, political) and the major aspects of business operations within its global environment (including accounting, human resource management, marketing, production and strategic management). Part or all of the course will be held in another country. Prerequisite: Admission to M.B.A. program. Three hours per week.

698. DIRECTED INDEPENDENT STUDY
1-3 hours credit
Individual tutorial course including research topics not covered in other courses. May be taken twice under different subtitles. Prerequisites: Admission to M.B.A. program and written permission from both the instructor and the M.B.A. program director.

699. SPECIAL TOPICS IN BUSINESS
1-3 hours credit
Study of specific problems and issues in business administration. May be taken twice under different subtitles. Prerequisite: Admission to M.B.A. program. One to three hours per week.

CHEMISTRY (CHEM)

100. INTRODUCTION TO CHEMISTRY
3 hours credit
Study of the fundamentals of chemistry with emphasis on the development of reasoning and quantitative skills necessary for problem solving. Students with little or no previous algebra/chemistry may wish to take this course prior to CHEM 121. Does not satisfy chemistry major requirements. Three hours per week.

101. PHYSICAL SCIENCE
4 hours credit
Introduces students to the fundamental concepts of the physical sciences. The course will emphasize practical applications, especially those which integrate all of the natural sciences. Credit may not be received for both CHEM 101 and PHYS 101. Prerequisite: This course assumes an understanding of college algebra. MATH 130 is recommended for elementary education majors. Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

107. CHEMISTRY: A HUMANISTIC PERSPECTIVE
4 hours credit
Study of the development of chemistry and the impact of chemistry on our world. Chemical principles and concepts are used to understand applications of chemistry to our everyday lives. Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

109. ENERGY AND THE ENVIRONMENT
4 hours credit
Study of the interaction of physical science and the environment, providing students not majoring in science an understanding of the scientific principles in our technological society. Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

121. GENERAL CHEMISTRY I
4 hours credit
Study of fundamental laws of chemistry and atomic structure emphasizing quantitative relationships. Prerequisite: This course assumes an understanding of high school chemistry and algebra. Three hours lecture, three hours laboratory per week. Meets General Education IIIA or IIIB.

122. GENERAL CHEMISTRY II
4 hours credit
Continuation of CHEM 121, including chemical equilibrium, electrochemistry and organic chemistry. Prerequisite: CHEM 121. Three hours lecture, three hours laboratory per week. Meets General Education IIIA or IIIB.

207. LABORATORY SAFETY
1 hour credit
Development of skills and attitudes for working with chemicals in a confident and responsible way. Emphasis on safety precautions and emergency procedures in case of a chemical accident. Prerequisite: CHEM 122. One hour per week.

210. INTRODUCTION TO CHEMICAL RESEARCH
1-3 hours credit
Introduction to individual directed study on an approved subject under faculty supervision. Written report required. May be taken twice for credit. May not be used to satisfy requirements for chemistry major or minor. Prerequisite: Permission of the department chair. Two hours laboratory per week per credit hour.

212. CHEMISTRY OF THE ELEMENTS
2 hours credit
Introduction to the properties and reactivities of the elements and their compounds. Emphasis on interpreting trends of the periodic table to predict physicochemical behavior. Prerequisite: CHEM 122. Two hours per week.

220. HUMANS AND THE ENVIRONMENT
4 hours credit
Interdisciplinary laboratory course in conjunction with the departments of Biology and Geography and Regional Planning, designed for non-science majors to develop awareness of ways earth’s environment is influenced by human
activities and effects of the environment on human society. May not be repeated for credit in the Biology or Geography and Regional Planning departments within the major. For students in the Honors Program, Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

221. ORGANIC CHEMISTRY I
4 hours credit
Systematic study of the compounds of carbon including their organization, preparation and typical reactions. Classes of compounds studied include aliphatic hydrocarbons, aromatic hydrocarbons. Prerequisite: CHEM 122. Three hours lecture, three hours laboratory per week. Meets General Education IIIB.

222. ORGANIC CHEMISTRY II
4 hours credit
Continued study of carbon compounds including acid derivatives, aldehydes, ketones, amines and phenols. Emphasis on the mechanism and stereochemistry of organic reactions. Prerequisite: CHEM 221. Three hours lecture, three hours laboratory per week.

310. INTERMEDIATE CHEMISTRY RESEARCH
1-3 hours credit
Intermediate level individual chemical research on an approved subject under supervision of a member of the faculty. Written report and seminar presentation required. May be taken twice for credit. May not be used to satisfy requirements of chemistry major or minor. Prerequisites/Corequisites: CHEM 221 and permission of department chair. Two hours laboratory per week per credit.

311. SURVEY OF PHYSICAL CHEMISTRY
3 hours credit
Survey of physical chemistry and its application to biological systems. Designed for students wishing to complete the chemistry/biochemistry track. Prerequisites: CHEM 122, MATH 201, PHYS 123 or PHYS 223. MATH 202 recommended. Three hours per week.

321. ANALYTICAL CHEMISTRY
4 hours credit
Study of the theory and applications of classical and modern analytical techniques. Includes volumetric, potentiometric, spectrophotometric and chromatographic methods. Prerequisite: CHEM 122. Three hours lecture, three hours laboratory per week. Meets General Education IIIB.

333. INSTRUMENTAL ANALYSIS
3 hours credit
Study of the theoretical and practical aspects of modern instrumental analysis. Topics include information processing, spectroscopic, chromatographic and electrochemical methods. Prerequisite: CHEM 321. Three hours per week.

341. PHYSICAL CHEMISTRY I
3 hours credit each
Comprehensive study of the fundamental concepts of physical chemistry. Prerequisites: CHEM 122, MATH 201, PHYS 123 or 223. MATH 202 recommended. Three hours per week.

342. PHYSICAL CHEMISTRY II
3 hours credit each
Comprehensive study of the fundamental concepts of physical chemistry. Prerequisites: CHEM 122, PHYS 309, PHYS 123 or 223. Three hours per week.

381. ENVIRONMENTAL CHEMISTRY
3 hours credit
Introductory survey of contemporary issues and problems in the chemistry of the environment. Chemistry of the atmosphere, natural and treated waters, and wetlands examined and discussed. Numerical application problems solved in group settings. Prerequisite: CHEM 222. Three hours per week.

406. INORGANIC CHEMISTRY
3 hours credit
Study of the theoretical concepts of inorganic chemistry with focus on the relationship between structure, bonding and reactivity. Emphasis on the chemistry of transition metals. Prerequisite/Corequisite: CHEM 341 or 311. Three hours per week.

408. POLYMER CHEMISTRY
3 hours credit
Study of the fundamental concepts of polymer chemistry with emphasis on structure, stereochemistry, synthesis and properties. Prerequisites: CHEM 222, 342. Three hours per week.

409. ELECTROCHEMISTRY
3 hours credit
Study of the theory and applications of modern electrochemistry. Topics include a review of electrochemical cells, ion-selective electrodes, electrophoresis, polarography, cyclic voltammetry, corrosion processes and impedance measurements. Prerequisite: CHEM 333. Three hours per week.

410. CHEMICAL RESEARCH
3 hours credit
Individual undergraduate research on approved subject under supervision of a member of the staff. Written report, seminar presentation required. May be taken twice for credit. Prerequisites. Twenty-four credits of chemistry and permission of department chair. Six hours laboratory per week, conference with the instructor.

412. ORGANIC CHEMISTRY III
3 hours credit
Continued study of carbon compounds including aryl halides, heterocyclic, polynuclear aromatic, unsaturated carbonyl and the organic compounds of sulfur and phosphorus. Emphasis on reaction mechanism and the interaction of functional groups. Prerequisite: CHEM 222. Three hours per week.

413. INTERNSHIP/CO-OP IN CHEMISTRY
3 hours credit
Work experience designed to provide qualified students opportunities to use acquired chemical knowledge in a professional way. Written report, seminar presentation required. Prerequisites: Twenty-four credits of chemistry, permission of department chair. Six hours work per week, conference with supervisor.

415. SEMINAR
2 hours credit
Introduces students to the literature, writing styles and oral presentation styles used by the scientific community in general, and the field of chemistry specifically. Builds skills in discussing current topics in chemistry. Prerequisite: Junior standing or permission of instructor. Two hours per week.

417. BIOCHEMISTRY I
4 hours credit
Application of chemical principles to biological systems through study of the properties, analysis, functioning and relationship of proteins, carbohydrates, lipids and nucleic acids. May not be taken for credit if student has credit for CHEM 407. Prerequisite: CHEM 222. Three hours lecture, three hours laboratory per week.

418. BIOCHEMISTRY II
3 hours credit
Study of the intermediary metabolism of biomolecules and the biochemistry underlying the expression of information
contained in DNA in the synthesis of biomolecules. Prerequisite: CHEM 417. Three hours per week.

419. BIOCHEMICAL METHODS
4 hours credit
Blended lecture and laboratory-based exploration of biochemical techniques commonly used in industrial and academic laboratories. Demonstrates the relationship between structure and function of biomolecules. Cross-listed with BIOL 440. May not receive credit for both CHEM 419 and BIOL 440. Prerequisite/Corequisite: CHEM 418. Six hours per week.

441. ADVANCED EXPERIMENTAL CHEMISTRY I
4 hours credit
Continuation of CHEM 440. Blended lecture/lab experience in experimental chemistry. Emphasis on the relationship between synthesis, instrumental methods and thermodynamic principles. Prerequisites: CHEM 333; CHEM 311 or 341. Six hours per week.

442. ADVANCED EXPERIMENTAL CHEMISTRY II
4 hours credit
Continuation of CHEM 441. Blended lecture/lab experience in experimental chemistry. Emphasis on the relationship between synthesis, instrumental methods and molecular structure. Prerequisite: CHEM 441. Six hours per week.

499. SPECIAL TOPICS IN CHEMISTRY
3 hours credit
Study of a specific area of chemistry. Topic varies from semester to semester. May be taken twice for credit. Three hours lecture per week/laboratory-lecture equivalent.

599. SPECIAL TOPICS IN CHEMISTRY
3 hours credit
Study of a specific area of chemistry. Topics vary from semester to semester. May be taken twice for credit under different subtitles. Lab-lecture equivalent. Prerequisite: Graduate standing.

COMMUNICATION ARTS (CMAT)

100. FUNDAMENTALS OF COMMUNICATION
3 hours credit
Foundations of communication theory and practice relevant to interpersonal and public oral communication. Surveys the skills necessary to articulate oneself effectively in a variety of communication settings such as the interpersonal relationship, formal and informal groups, and public forums. Three hours per week. Meets General Education IB.

110. INTRODUCTION TO MASS MEDIA
3 hours credit
Theory, history, structure and functions of mass media (print, film, recording, radio, television, multimedia). Three hours per week. Meets General Education IB.

131. WRITING FOR BROADCASTING
3 hours credit
Fundamentals of writing for broadcasting, including basic script formats and basic forms such as public service announcements, continuity, news and dramas. Prerequisite: C or better in ENGL 101. Three hours per week. Meets General Education IB.

134. RADIO PRODUCTION
3 hours credit
Study and practice of all phases of radio production and equipment operation; includes legal and professional requirements for radio broadcasters. Prerequisite: C or better in CMAT 131. Four hours per week.

136. TELEVISION PRODUCTION
3 hours credit
Introduction to the equipment and techniques of television production. Operation of television studio production equipment; processes and procedures of producing and directing. Prerequisite: C or better in CMAT 131. Four hours per week.

200. THEORIES OF HUMAN COMMUNICATION
3 hours credit
Introductory survey of theories concerning intrapersonal, interpersonal, group, organizational, public, mass media and intercultural communication to provide the theoretical bases for further study in communication. Prerequisite: C or better in CMAT 100. Three hours per week.

205. INTERPERSONAL COMMUNICATION
3 hours credit
Study of the factors that motivate and determine communication or non-communication among individuals, of the psychological barriers and inducements to open communication and of the effects of these factors upon the people involved. Three hours per week. Meets General Education IB.

218. ADVANCED PUBLIC SPEAKING
3 hours credit
Designed to improve exposure and practice in the preparation and presentation of messages. Emphasizes the nature, methods and principles of public address including persuasive, informative and special occasion presentations. Prerequisite: C or better in CMAT 100. Three hours per week.

236. ELECTRONIC FIELD PRODUCTION
3 hours credit
Study of the production of television and film programs using single camera and editing techniques. Prerequisite: C or better in CMAT 134, 136. Four hours per week.

239. RADIO AND TELEVISION PRACTICUM
2 hours credit
Supervised experiences in radio and television production and performance. May be repeated once. Credits may be earned in several areas. Prerequisite: Permission of department chair.

246. JOURNALISM
3 hours credit
Introduction to newspaper reporting and journalistic writing; the practical problems of publishing a newspaper. Prerequisite: C or better in ENGL 101. Three hours per week.

248. INTRODUCTION TO PUBLIC RELATIONS
3 hours credit
Study of the function of public relations, the relevant communication tools, the impact of emerging technology and the tasks, roles and responsibilities of a public relations professional. Additionally, it provides students with insight into future trends. May not be taken for credit if student has credit for CMAT 443. Prerequisite: C or better in CMAT 131 or 246. Three hours per week.

249. JOURNALISM/PUBLIC RELATIONS PRACTICUM
1-2 hours credit
Offers students experiences in a variety of areas of on-campus activities. Students will be allowed to gain credit for working with groups such as the Evergreen yearbook, The Flyer newspaper, school-level newsletters or other journalism of public relations activities approved by the practicum director. May be repeated up to four credit hours. Prerequisites: C or better in CMAT 246 or 248 and permission of instructor. Minimum four hours per week per credit.
250. INSTRUCTIONAL COMMUNICATION
3 hours credit
Study of the communicative factors involved in the teaching-
learning process. Explores the communication concepts
applicable to classroom instruction and develops the commu-
nication skills essential in teaching groups of students.
Special focus is given to communicating a supportive class-
room environment, developing effective questioning strate-
gies and effective interpersonal relationships in a classroom
setting. Three hours per week. Meets General Education
IB.

260. FUNDAMENTALS OF ORGANIZATIONAL
COMMUNICATION
3 hours credit
Study of human communication systems in organizations.
Students explore one-to-one, small group and one-to-many
communication, and develop the skills needed in organiza-
tional communication. Three hours per week. Meets
General Education IB.

300. INTERCULTURAL COMMUNICATION
3 hours credit
Study of correctable communication problems caused by cul-
tural differences. Analysis of problems from communication
and cultural perspectives. Emphasis on ways to avoid and
correct such problems. Does not satisfy General Education
requirements. Prerequisite: C or better in CMAT 200. Three
hours per week.

301. COMMUNICATION RESEARCH
3 hours credit
Introduction to common communication research methods,
including literature reviews, surveys, experiments, content
analysis, rhetorical criticism, ethnography, interviews and
focus groups. Students learn essential research and writing
skills through projects created in areas of interest such as rela-
tionships, business, media, or advertising/public relations.
May not receive credit for both CMAT 297 and CMAT 301.
Prerequisite: C or better in CMAT 200. Three hours per
week.

304. COMMUNICATION, GENDER AND CULTURE
3 hours credit
Explores the relationships among communication, gender
and culture. Illuminates the pivotal role of communication in
sustaining and altering existing gender and cultural patterns.
Prerequisites: C or better in CMAT 200, 205. Three hours
per week.

305. INTERPERSONAL COMMUNICATION II
3 hours credit
Extension of CMAT 205. A laboratory approach to the study of
communicating in relationships. Exercises and assignments
assist students in examining how they talk to others and form
partnerships. Prerequisites: C or better in CMAT 200, 205. Three
hours per week.

306. CONVERSATIONAL ANALYSIS
3 hours credit
Study of conversational goals and strategies. Focus on rec-
ognizing and understanding role of specific features (i.e. pro-
nouns, sentence structure) in interpersonal contexts; individ-
ual communicative strategies and their effects on conversa-
tional patterns. Readings, data analyses, two or three exams.
Prerequisites: C or better in CMAT 200, 205. Three hours
per week.

307. INTERPERSONAL CONFLICT
3 hours credit
Examines the role of communication in interpersonal contexts
where there is a need to manage conflict. Explores how com-
munication can reflect, create and transform conflict.
Analyzes the role of power, climate, emotions and other fac-
tors that contribute to destructive or constructive conflict pat-
tens. Emphasizes conceptual understanding and basic skills in
diagnosing conflict, making recommendations, monitoring
one’s own behavior and third party intervention. Prerequisite: C or better in CMAT 205.

308. INTERVIEWING
3 hours credit
Investigates interviewing situations based on giving and/or
getting information and influencing the behavior of others
through persuasion. Includes exercises demonstrating most
commonly used forms of the interview. Prerequisite: C or
better in CMAT 100 or 250 or 260. Three hours per week.

310. SMALL GROUP DISCUSSION
3 hours credit
Participation in and analysis of small group discussion.
Emphasizes communication within the small group setting
and effective group decision making. Prerequisites: C or bet-
ter in CMAT 200, 205. Three hours per week.

311. PARLIAMENTARY PROCEDURE
1 hour credit
Designed to familiarize the student with the fundamental prac-
tices in the process and procedures of rules of order.
Explores rules of order and how they are used to guide a
meeting; roles and responsibilities of the group leader;
responsible of individual members; establishing organiza-
tions, their charters and bylaws; and the role of the parliamen-
tarian. One hour per week.

312. NONVERBAL COMMUNICATION
3 hours credit
Study of human communicative behavior without the use of
words. Ways of sending and receiving nonverbal messages
are examined with the goal of awareness and understanding
of their communicative value. Prerequisites: C or better in
CMAT 200, 205. Three hours per week.

314. CONFERENCE AND MEETING MANAGEMENT
3 hours credit
Studies the basic principles and procedures for the effective
management of small- and large-scale conferences and
meetings in a variety of contexts, including education, sales
and marketing, professional associations and government.
Will apply the knowledge gained through readings and lecture
to actual and simulated conferences. Students will be
involved in the actual planning and management of a confer-
ence. Prerequisites: C or better in CMAT 200 and 248 or
260, or permission of instructor. Three hours per week.

315. PERSUASION
3 hours credit
Historical and critical study of persuasive forms and tech-
niques including propaganda and advertising. Study of theo-
ry and ethics of persuasion. Practice in persuasive communi-
cation. Prerequisite: C or better in CMAT 200. Three hours
per week.

316. ARGUMENTATION AND DEBATE
3 hours credit
Study of the basic principles of argumentation, rational deci-
sion making and advocacy. Concepts include logical reason-
ing, analysis and critical thinking. Practice in the presentation
and application of these principles. Prerequisite: C or better
in CMAT 200. Three hours per week.

330. BROADCAST JOURNALISM
3 hours credit
Principles, forms and techniques of broadcast journalism.
Practicum in broadcast news writing, editing, processing and
delivery. Practical experience in producing magazine-style
news packages for a weekly newscast. Prerequisite: C or better
in CMAT 236 or permission of instructor. Corequisite:
CMAT 339. Three hours per week.
331. DRAMATIC WRITING FOR RADIO AND TELEVISION  
3 hours credit  
Instruction in the elements of drama, broadcast writing techniques, forms and styles. Assignments include creating scripts for such broadcast genres as public service announcements, docudramas and comedies. Prerequisite: C or better in CMAT 131. Three hours per week.

332. MEDIA CRITICISM AND ANALYSIS  
3 hours credit  
Development of critical viewing skills through analysis of program conventions, genres and media aesthetics, and through intensive writing. Prerequisites: C or better in CMAT 110, 200. Three hours per week.

333. DOCUMENTARY PRODUCTION  
3 hours credit  
Investigates documentary styles and techniques. Emphasizes the documentary production process, familiarity with variety of documentary styles and good production skills. Prerequisite: C or better in CMAT 236 or permission of instructor. Three hours per week.

334. THE MASS MEDIA IN SOCIETY  
3 hours credit  
Critical study of the persuasive elements generated through the mass media, and the resulting influence the media exert upon society. Prerequisites: C or better in CMAT 110, 200. Three hours per week.

335. COMMUNICATING ON THE WEB  
3 hours credit  
Acquaints the student with the numerous and varied elements contained on the Internet. The course will enhance communication skills specifically for the networked environments and discuss how to reach specific audiences on the net. Instruction includes media writing, page design, site development and learning about hypertext markup language. Integral to the course is evaluating and analyzing Web based content. Prerequisites: C or better in CMAT 110, 131. Three hours per week.

336. ADVANCED TELEVISION PRODUCTION  
3 hours credit  
Application to advanced television production of principles and processes learned in earlier production classes. Creation of programming for campus cable. Prerequisites: C or better in CMAT 136, 236. Four hours per week.

337. INTERNATIONAL MEDIA SYSTEMS  
3 hours credit  
Introduction and examination of the media systems of countries around the globe with emphasis on the effects geo-political and cultural forces have on the development of specific mass communication channels throughout the world. Prerequisite: Junior standing. Three hours per week.

338. ISSUES IN BROADCAST MANAGEMENT  
3 hours credit  
Students confront some of the problems faced by contemporary broadcast managers and seek to determine viable solutions. Topics include economics, personal relations, programming, organization, production, advertising and business, community relations and Federal Communications Commission rules and regulations. Prerequisite: C or better in CMAT 332 or 334. Three hours per week.

339. PRODUCING THE NEWS  
3 hours credit  
Application of broadcast journalism principles and processes in the production of a newscast. Includes designing, directing, on-camera presentation and ethical issues. Emphasizes creation of a weekly magazine-style news program for campus cable and local access. Prerequisite: C or better in CMAT 236 or permission of instructor. Corequisite: CMAT 330. Four hours per week.

340. PUBLIC RELATIONS WRITING  
3 hours credit  
Study of writing techniques and formats for public relations applications, including radio and television public service announcements, video news releases, speech writing, media kit preparation, and print media news releases. Prerequisites: CMAT 246, 248. Three hours per week.

341. FEATURE WRITING  
3 hours credit  
Principles of research, organization and style for newspaper feature articles. Writing articles for possible submission to selected journals and newspapers. Prerequisite: C or better in CMAT 246. Three hours per week.

342. COMMUNICATING WITH ADVERTISING  
3 hours credit  
Focuses on the study and practice of planning and creating advertisements and advertising techniques such as campaign planning, copy writing and media placement. Explores the aesthetic dimensions of advertising expression and cultural dimensions of reading and interpreting advertisements. Overview of how the advertising industry operates, what ad people do, and the effects of advertising on society. Prerequisite: C or better in CMAT 131 or 246. Three hours per week.

345. SPORTS COMMUNICATION  
3 hours credit  
Places sports in a social perspective and teaches students to study and apply skills required of sportswriters, sportscasters and sports information specialists. Prerequisite: C or better in CMAT 246. Three hours per week.

346. PUBLIC AFFAIRS REPORTING  
3 hours credit  
Examines media coverage of public agencies and social issues while emphasizing civic journalism. Prerequisite: C or better in CMAT 246. Three hours per week.

348. PUBLICATION DESIGN  
3 hours credit  
Instruction in the principles, theories and applications of typography, layout, design, editing and production for newsletters, brochures, newspapers, magazines and other publications. The course is designed to help develop desktop publishing skills. Prerequisite: C or better in CMAT 340 or 341 or permission of the instructor. Three hours per week.

365. MANAGERIAL COMMUNICATION  
3 hours credit  
Study of the role of the manager as a communicator at various organizational levels. Students study various communication strategies available to managers. Topics include information processing; presenting, receiving and gathering information; goal setting; decision making and change. Prerequisites: C or better in CMAT 200, 260. Three hours per week.

390. STUDIES IN INTERPERSONAL AND ORGANIZATIONAL COMMUNICATION  
3 hours credit  
Study in interpersonal, organizational or public communication process and messages. May be taken twice under different subtitles. Prerequisite: C or better in CMAT 200. Three hours per week.

391. STUDIES IN MASS MEDIA  
3 hours credit  
Study of various mass media concepts as they impact contemporary society. May be repeated a maximum of two times under different subtitles. Prerequisite: C or better in CMAT 200. Three hours per week.
394. STUDIES IN JOURNALISM/PUBLIC RELATIONS
3 hours credit
Study of various concepts, theories and/or practices in journalism or public relations. May be repeated under different subtitles. Prerequisite: C or better in CMAT 200. Three hours per week.

397. INDEPENDENT TELEVISION PRODUCTION
3 hours credit
Students propose a program for production with the advice and permission of an instructor prior to registration. Types of programs may include (but are not limited to) a series (news, talk or game show) for SU-TV, a full-length corporate video for a local “client,” a full-length informative video on a regional issue, or a feature-length drama. Only three hours may be counted toward upper-level major requirements. May be taken twice for a total of six credit hours. Prerequisites: C or better in CMAT 330 or 336, junior standing, 3.0 grade point average in CMAT, written permission of the instructor. Three hours per week.

400. ADVANCED COMMUNICATION THEORY
3 hours credit
Selected philosophies and theories of human communication, encompassing structures, forms and contexts of communication, which include cultural contexts, assumptive bases and world views of theories and theorists. Prerequisites: C or better in CMAT 200 and junior standing. Three hours per week.

405. FAMILY COMMUNICATION
3 hours credit
Characterization of family styles of communication as they reflect values, attitudes and perceptions of family members as a group. Examination of effects of individual communication strategies on development of family patterns of interaction. Selected readings, field research, two exams. Prerequisites: C or better in CMAT 200, 205. Three hours per week.

410. POLITICAL COMMUNICATION
3 hours credit
Studies the role of media and rhetoric in political campaigns and the political process. Prerequisites: C or better in CMAT 200 and junior standing; or permission of the instructor. Three hours per week.

438. MASS COMMUNICATION LAW
3 hours credit
Consideration of the legal and regulatory context of mass communication. Topics include constitutional, first amendment and statutory issues and the study of regulatory agencies and processes. Prerequisites: C or better in CMAT 332 or 334. Three hours per week.

440. MEDIA AND CRIMINAL JUSTICE
3 hours credit
Course enhancing the understanding of the media-criminal justice relationship as media coverage corresponds with heightened public demand for accountability in law enforcement, corrections, legal and judicial agencies. Study news coverage and entertainment portrayals of institutional and source-reporter interaction in criminal justice agencies, which are developing sophisticated public information and media relations strategies. Evaluate whether the public can be better informed without sacrificing the integrity of media and criminal justice agencies. Prerequisite: C or better in CMAT 248 or 332 or 334. Three hours per week.

444. ENVIRONMENTAL COMMUNICATION
3 hours credit
Focuses on the reporting and dissemination of environmental policy, information and education, environmental reporting and environmental public relations. Also discusses risk and crisis communication management. Prerequisites: C or better in CMAT 200, 248 or permission of the instructor. Three hours per week.

448. PUBLIC RELATIONS CASES AND STRATEGIES
3 hours credit
Examines public relations cases while developing strategies and scenarios for response. Prerequisite: C or better in CMAT 248. Three hours per week.

460. APPLIED ORGANIZATIONAL COMMUNICATION
3 hours credit
Examines the process of communication from the perspective of the whole organization and studies various structures in business, education, the arts, etc. in order to analyze and improve communication. Prerequisite: C or better in CMAT 200. Three hours per week.

465. COMMUNICATION TECHNOLOGY
3 hours credit
Examines innovations in communication techniques and applications. Topics include satellite and terrestrial based technology, conferencing, decision support systems, computer mediated communication and the impact of technology on the communication process and communicators. Prerequisites: C or better in CMAT 110, 200. Three hours per week.

490. COMMUNICATION SEMINAR
3 hours credit
Intensive study in speech or communication studies. Students should choose a seminar in their track. Substantial research paper/academic project and class presentation are required. May be taken twice under different subtitles. Prerequisites: C or better in CMAT 200 and junior standing. Three hours per week.

492. INDEPENDENT STUDY
1-3 hours credit
Student must choose a topic for investigation with the advice of an instructor prior to registration. The student must then submit a proposal including a letter of intent, an outline of the proposed study and an abstract of the intended topic area. Prior familiarity and work with the topic are recommended. Variable credit; may be taken twice. Prerequisite: Permission of department chair. Hours arranged.

495. INTERNSHIP IN COMMUNICATION
3-6 hours credit
Provides practical experience in the application of theoretical concepts including broadcasting, theatre, journalism, organizational communication, public relations, training, etc. Only three hours may be counted toward upper-level major requirements. May be taken twice for a total of six credit hours. Prerequisites: C or better in CMAT 100, 110, 200, junior standing, track core courses, 2.5 overall G.P.A., 3.0 G.P.A. in CMAT, and permission of the department. Three to six hours per week.

497. INDEPENDENT RESEARCH
3 hours credit
Designed to encourage students to pursue an important area of research in communication. Allows a student to study a subject area in more depth than possible in the traditional classroom setting. With the advice of an instructor, the student must submit a proposal including a letter of intent, an outline of the proposed study with bibliography and an abstract of the intended topic area. The project should ideally be new research as an addendum to an earlier project. A public presentation of research is required. Prerequisites: C or better in CMAT 200, 297, (at least 3.0 GPA in CMAT courses) permission of department chair and approval and cooperation of supervising instructor. Three hours per week.
499. HONORS
3 hours credit
Independent study undertaken for departmental honors at the invitation of the department.

500. ORAL READING AND THE TEACHING OF LITERATURE
3 hours credit
Designed to lead the student to an awareness of literature through the performing self to reinforce the concept that one’s physiological and psychological processes are bound together in the act of understanding what stories and poems mean. Three hours per week.

501. ADVANCED COMMUNICATION THEORY
3 hours credit
Selected philosophies and theories of human communication, encompassing structures, forms and contexts of communication, which include cultural contexts, assumptive bases and world views of theories and theorists. Prerequisite: Graduate status. Three hours per week.

510. SEMINAR IN INTERPERSONAL COMMUNICATION
3 hours credit
The investigation of speech-communication from the point of view of communication from the point of view of view of manipulation, barriers and breakdowns—factors which undermine human potential for optimum reciprocal social intercourse. Three hours per week.

530. POLITICAL COMMUNICATION
3 hours credit
Studies the role of media and rhetoric in political campaigns and the political process. Prerequisite: Graduate status. Three hours per week.

590. COMMUNICATION SEMINAR
3 hours credit
Intensive study of a selected topic in speech, communication studies or theatre. May be repeated under different subtitles. Prerequisite: Graduate status. Three hours per week.

592. INDEPENDENT STUDY
1-3 hours credit
Student must choose a topic for investigation with the advice of an instructor prior to registration. Variable credit; may be taken twice. Prerequisites: Graduate status, Permission of department chair. Hours arranged.

645. ORGANIZATIONAL COMMUNICATION
3 hours credit
Designed to improve a manager’s effectiveness in communicating on both an interpersonal and systems level. Topics include dissemination of information, writing style and format. Includes theories and models in communication. Emphasis on solving business communication problems. Prerequisite: Admission to M.B.A. program. Three hours per week.

COMPUTER SCIENCE (COSC)

116. INTRODUCTION TO COMPUTER SYSTEMS
4 hours credit
Overview of computer science and the theory and application of computer fundamentals. Lab activities include: file and directory/folder manipulation, word processing, spreadsheets and program implementation. May not be taken for credit if student already has credit for any of the following: COSC 110, 112, 115, INFO 111. Three hours lecture, two hours laboratory per week. Meets General Education IIIB.

117. PROBLEM SOLVING WITH JAVA
3 hours credit
Introductory course in computer programming, which involves solving problems by designing, implementing and testing algorithms. Implementation will be done in the object-oriented language Java. Emphasis throughout the course is on problem solving and learning to develop computer programs that are reliable, well-documented, efficient, cross-platform and correct. Students will be introduced to the Windows programming environment and Internet applications. Applets (Java programs that are bound to html files for use on the Web) and Java graphics will be emphasized and introduced early in the course. Two hours lecture, two hours laboratory per week. Meets General Education IIIB.

118. INTRODUCTORY SCIENTIFIC PROGRAMMING WITH VISUAL BASIC
4 hours credit
Introductory to program design and development in the Visual Basic environment. Programs will focus on development of applications for science, including graphical user interface design and Visual Basic applications. The object-oriented approach will be emphasized throughout. No previous programming experience is required. Three hours lecture, two hours laboratory per week.

120. COMPUTER PROGRAMMING
4 hours credit
Step-by-step approach to problem solving, modular structured design, and structured programming in C++. Emphasizes production of readable, well documented, efficient, tested and correct programs. Includes time intensive assignments. Three hours lecture, two hours laboratory per week. Meets General Education IIIB.

220. DATA STRUCTURES AND ALGORITHM ANALYSIS
4 hours credit
Object-oriented approach to design and implementation of medium to large software projects. Abstract data types including lists, stack and queues. Emphasizes design trade-offs based on analysis of run time and storage requirements. Includes time-intensive assignments. Prerequisite: COSC 120. Corequisite: MATH 210. Three hours lecture, two hours laboratory per week. Meets General Education IIIB.

250. MICROCOMPUTER ORGANIZATION
4 hours credit
Organization and internal behavior of microcomputer hardware: digital logic, Boolean algebra, switching networks, design of memories and ALUs, controllers, microprocessor architecture, introduction to machine code and assembly language. Credit may not be received for both COSC 250 and PHYS 322. Prerequisite: COSC 116 or 120. Three hours lecture, two hours laboratory per week. Meets General Education IIIB.

320. ADVANCED DATA STRUCTURES AND ALGORITHM ANALYSIS
3 hours credit
Continuation and expansion of the material in COSC 220. Topics include data abstraction; trees, graphs, networks and tables; calculating time/space complexities; advanced searching and sorting algorithms; and programming tools. Prerequisites: COSC 220, MATH 210. Three hours per week.

350. SYSTEMS SOFTWARE
4 hours credit
Study of programming at the systems level, mostly in a UNIX environment. Topics include processes, threads, sockets, basic I/O operations, interprocess communication and use of Shell and Perl scripts. Prerequisites: COSC 220, 250. Three hours lecture, two hours laboratory per week.

362. MATHEMATICAL FOUNDATIONS OF COMPUTER SCIENCE
3 hours credit
Applications of discrete mathematics to computer science
370. COMPUTER NETWORKS
3 hours credit

Theory and practice of data communication between computing devices. Investigates network architectures, wide- and local-area networks, ISO network layers. Emphasis is on the underlying theory and how network design affects network performance. Study of encoding systems, routing control, transport protocols, programming for networks, socket programming and remote procedure calls. Prerequisites: MATH 210, 213, 214 and COSC 220. Three hours per week.

380. DIRECTED STUDY
1-4 hours credit

For students who desire to pursue a special topic in computer science not covered in the current curriculum. Under most circumstances students will take this course for three credit hours. The course may be repeated under different subtitles, for a total of 9 credits, but only a total of four credit hours from MATH 380 and/or COSC 380 may be taken toward a major in mathematics or computer science. Prerequisite: Approval of the instructor and the chair of the Department of Mathematics and Computer Science. One to four hours per week. (P/F)

385. DIRECTED CONSULTING
4 hours credit

Provides teams of 3-12 students with experience in using mathematical and computing tools to solve real-world problems posed by a client organization, such as a research institute, business or industry. Combines individual and group work, and requires the presentation of a written and oral report to the client organization and the department. Cross-listed with MATH 495. COSC/MATH 495 may be taken twice for a maximum of eight credits, but used only once toward a major in mathematics or computer science. Prerequisite: COSC 220. Three hours per week.

490. SPECIAL TOPICS
3 hours credit

Seminar course with content that varies semester to semester (e.g., artificial intelligence, compiler construction or other topics suggested by faculty or students). May be taken twice under different titles. Prerequisite: COSC 220. Three hours per week.

495. DIRECTED CONSULTING
4 hours credit

Study of microcomputers, advanced programming concepts and other topics appropriate to secondary school teachers of mathematics and science. Graduate credit only. Prerequisite: Ability to design and write clear programs; COSC 120.

522. ORGANIZATION OF PROGRAMMING LANGUAGES
3 hours credit

Study of the organization of programming languages, with emphasis on their formal specifications and on the run-time behavior of procedural, object-based, functional and logic programming languages. History, syntax and grammars, control, binding, pointers, blocks, parameters, and encapsulation. Prerequisite: COSC 220. Three hours per week.

550. OPERATING SYSTEMS
3 hours credit

Analysis of the operating system, the program which supervises the activity of the computer. Study of processes, inter-process communication, scheduling, I/O systems, deadlock, file systems, memory management, security/protection mechanisms and resource allocation. Prerequisite: COSC 350. Three hours per week.
CONFLICT ANALYSIS AND DISPUTE RESOLUTION (CADR)

100. FOUNDATIONS OF CONFLICT AND CONFLICT RESOLUTION
3 hours credit
Surveys the basic practical and theoretical foundations of conflict and conflict resolution. Introduces students to the basic theories and practices of conflict resolution, providing them with a grounding in theories of conflict, its application and the dynamics of conflict. Students will learn to understand their own conflicts and how the theories, skills and practices of conflict resolution can make conflict productive. Three hours per week. Meet General Education IIB.

201. CONFLICT RESOLUTION PROCESSES
3 hours credit
Teaches the theoretical and practical application of negotiation, mediation and facilitation. Participants will be taught how to do basic negotiation, mediation and facilitation as well as when it is best to use each process. Hands-on experience will be available through the Center for Conflict Resolution, whose programming includes the student-run Campus Mediation Center. Three hours per week. Meets General Education IIB.

202. DYNAMICS OF SOCIAL CONFLICT - CASE STUDY ANALYSIS
3 hours credit
Examines a variety of case studies that analyze the dynamics and variables that lead to the generation, escalation and de-escalation of complex social conflicts. Explores a variety of theoretical and practical ways to solve difficult disputes. Role-plays, guest resource persons and a final class project will serve to develop these practical and analytical skills. Three hours per week.

225. SOCIOLGY OF CONFLICT AND NONVIOLENCE
3 hours credit
Seeks answers to questions about why humans use violence to resolve conflict and what social forces produce conflict in families, ethnic and racial groups, economic groups and nation states. Explores nature and practice of nonviolent conflict resolution. Cross-listed with SOCI 225. May not receive credit for both CADR 225 and SOCI 225. Three hours per week. Meets General Education IIB.

300. THEORIES OF CONFLICT AND CONFLICT RESOLUTION
3 hours credit
Examines the root cause of social conflict from a variety of theoretical perspectives. Conflict analysis is examined using psychological, sociological, anthropological, political and internal national relations perspectives. Identifies various fac-

582. COMPUTER GRAPHICS
3 hours credit
Generate and manipulate graphic information using the computer. Emphasis on the analysis of fundamental problems associated with these activities and on the structured design of solutions. Cross-listed with MATH 482. Credit may not be received for more than one: COSC 482, COSC 582, MATH 482, MATH 582. Prerequisites: COSC 120, MATH 306, graduate standing required. Three hours per week.

590. SPECIAL TOPICS
3 hours credit
Seminar course with content that varies semester to semester (e.g., artificial intelligence, compiler construction or other topics suggested by faculty or students). May be taken twice under different titles. Prerequisites: COSC 220, graduate standing required. Three hours per week.

301. INTERNATIONAL CONFLICT AND CONFLICT RESOLUTION
3 hours credit
Focuses on the variety of root sources of conflict between nation states. Underscores the early detection and successful prevention of large-scale acts of aggression and violence between nation states. Case studies will be employed to understand and explain these international disputes. Some key players in these conflicts will serve as resource persons for class. Three hours per week.

302. CROSS-CULTURAL CONFLICT ANALYSIS AND INTERVENTION
3 hours credit
Culture and its impact on the interactions of individuals and groups is the core concern of this course. The norms, roles, values, beliefs and traditions of various ethnic and racial groups are primordial to an understanding of why there is conflict among groups. This class emphasizes cultural awareness as a means of more fully understanding the dynamics of controversies among different groups and examines a variety of “rational” systems, belief and value structures that directly clash with those of neighboring groups. Three hours per week.

309. RESEARCH I: SOCIAL RESEARCH
3 hours credit
Introduction to social science research methods. Emphasis on research designs, including formulation of questions, conceptualization, measurement sampling and involvement in practical research activity. Cross-listed with SOCI 309. May not receive credit for both CADR 309 and SOCI 309. Three hours lecture, two hours laboratory per week. Meets General Education IIB.

310. RESEARCH II: STATISTICAL METHODS
4 hours credit
Advanced training in social science research methods. Emphasis on data analysis, including organization of data for computer processing, hypothesis testing and simple casual modeling. Cross-listed with SOCI 310. May not receive credit for both CADR 310 and SOCI 310. Prerequisite: CADR/SOCI 309. Three hours lecture, two hours laboratory per week.

400. PRACTICUM AND INTERNSHIP
3 hours credit
Provides a supervised and mentored experience practicing conflict resolution in local, regional, national or international organizations. The practicum and internship provides opportunities including mediation, training and dispute systems design. Three hours per week.

401. DISPUTE SYSTEMS DESIGN
3 hours credit
Examines the practical and theoretical approaches to diagnosing and solving complex organizational conflict. Students will learn how to conduct needs assessment, a variety of organizational analysis techniques and how to construct an internal dispute resolution system for organizations within the private and public sector. Three hours per week.

402. SENIOR SEMINAR
3 hours credit
Provides students with the opportunity to synthesize, analyze and evaluate all that they have learned in the core conflict analysis and dispute resolution (CADR) courses. Students will conduct a senior project on the analysis and resolution of a protracted social conflict of their choosing. Students will also construct a personalized knowledge “filing cabinet” that they can use to examine their own CADR strengths and areas where they want to further concentrate their academic and
professional development. Students will receive a high concentration of personalized advising on their professional and academic career choices. Three hours per week.

403. RESOLVING ENVIRONMENTAL CONFLICT
3 hours credit
Environmental conflict is the major problem facing most civilizations in the 21st century. This course provides a systematic approach to the examination of the sources of environmental conflict as well as various ways to reach resolution. The core challenge is to balance basic human needs while effectively protecting, preserving or conserving vital parts of the physical and biological environment. This course presents a number of conflict intervention models and techniques. Three hours per week.

404. NEGOTIATION AND CONFLICT MANAGEMENT IN BUSINESS
3 hours credit
Business conflict can not only hurt profits but personal and professional relationships and, if left unchecked, can impact large groups of people outside the business setting. Conflict management techniques and processes are presented so that students will know how to more effectively manage conflict at an interpersonal level before they escalate into a scenario that requires more people to become involved and further drain business resources. Case studies, simulations and role-plays are used to teach conflict resolution skills that serve to prevent and manage conflicts from becoming destructive. Students will also learn how to become more effective negotiators through the use of interest-based tactics and strategies. Three hours per week.

490. INDIVIDUAL DIRECTED STUDY
1-3 hours credit
Enables advanced students to pursue individualized work through field study or other projects of their own choosing, under the direction of a faculty member. Students may use the resources available at the Center for Conflict Resolution to become involved in on-going projects. May be repeated for a maximum of six credits with faculty approval. Prerequisites: CADR 100, major in conflict analysis and dispute resolution, and permission of instructor. One to three hours per week.

495. INDIVIDUAL RESEARCH
3 hours credit
Advanced students pursue their own research project under the direction of a faculty member or assist a faculty member in a research project. Involves both archival and qualitative and/or quantitative social science research. May be repeated for a maximum of six credits with faculty approval. Prerequisites: CADR 100, major in conflict analysis and dispute resolution, and permission of instructor. Three hours per week.

DANCE (DANC)

106. DANCE COMPANY
1 hour credit
Selected dance ensemble whose members assume individual responsibility for professionalism, commitment, awareness of artistic dance objectives and excellence in performance. Attendance is mandatory at classes, meetings, rehearsals, community service and production activities, and performances. May be repeated for a total of eight credit hours with five applied to the minor. Prerequisite: Open to all students by audition only. Four hours per week.

162. CREATIVE MODERN DANCE I
3 hours credit
Introduces a biomechanical approach to movement and basic principles and techniques for modern dance as a creative art form. Three hours per week. Meets General Education IB.

167. BALLET I
3 hours credit
Introduction and application of the fundamentals of ballet technique as highly disciplined dance form. Focus on flexibility, precision, strength, musicality and on appreciation of the inherent beauty of form. Three hours per week. Meets General Education IB.

168. JAZZ DANCE
3 hours credit
Study of jazz dance including a working knowledge of the music, the period and the movement techniques used. May be taken as one of the required technique classes. Three hours per week. Meets General Education IB.

202. DANCE APPRECIATION
3 hours credit
Study of traditions of dance in communities around the world; provide perspective for understanding and appreciating the function of dance in human societies. Three hours per week. Meets General Education IB.

260. INTRODUCTION TO DANCE MOVEMENT
1 hour credit
Introduces broad principles of dance/movement, rhythmic/step analysis, notation and Laban movement analysis through traditional and cultural dance forms. Emphasizes physical experience as the source of dance through exploration, improvisation and creative problem-solving. No experience required. Two hours per week.

262. CREATIVE MODERN DANCE II
3 hours credit
Continues DANC 162. Emphasizes intermediate level principles and techniques for modern dance as a creative art form through the Hawkins style. Three hours per week. Meets General Education IB.

267. BALLET II
3 hours credit
Application of principles of ballet dance technique and vocabulary beyond the beginning level. Prerequisite: PHEC 167 or equivalent. Three hours per week. Meets General Education IB.

360. TEACHING DANCE
2 hours credit
Study of methods and materials for teaching cultural and creative dance as a medium for enhancing classroom learning. Prerequisite: in DANC 260 provides opportunities for lesson planning and practice teaching. Applies culturally diverse resources to materials and activities. Open to all prospective teachers. Three hours per week. (Fall semester only)

380. DANCE TECHNIQUE III
3-9 hours credit
Applies advanced-level training to ballet, modern dance and jazz dance techniques. May be repeated for a total of nine credit hours. Prerequisite: Dance audition during the first class meeting. Four hours per week. (Spring semester only)

490. SELECTED TOPICS
1-3 hours credit
Intensive study of selected topics in dance. May be repeated for a maximum of six credits under different subtitles. Prerequisite: Permission of instructor.

491. INDEPENDENT STUDY
1-3 hours credit
Independent study of problems not considered in other classes. May be repeated for a maximum of six hours. Prerequisite: Permission of instructor and department chair. Two to nine hours per week.
ECONOMICS (ECON)

150. PRINCIPLES OF ECONOMICS
3 hours credit
A general introduction to economic ideas and analysis with emphasis on economic institutions and processes in the context of a market economy. Includes basic discussion of micro-economic and macroeconomic topics including economic decision making in the context of scarce resources, price theory, monetary and fiscal policy, etc. This course is intended for nonbusiness majors. This course may not be taken concurrently with or after having completed ECON 211 or 212. Three hours per week. Meets General Education IIB.

211. MICRO-ECONOMIC PRINCIPLES
3 hours credit
Introduction to the ideas and tools economists use to understand human behavior constrained by scarce resources. Analytical tools introduced include supply and demand analysis, elasticities, and models of perfect and imperfect competition. These tools will be used to study topics such as consumer and producer decision-making, taxation, environmental quality and health care. Three hours per week. Meets General Education IIB.

212. MACROECONOMIC PRINCIPLES
3 hours credit
Examines forces behind business consumer purchases, capital spending and the balance of payments and their relationship to unemployment, inflation and the value of the dollar abroad. Also examines the effect of government spending, taxation and money supply policies on the economy's performance. Prerequisite: ECON 211. Three hours per week. Meets General Education IIB.

220. INTRODUCTION TO ECONOMETRICS
3 hours credit
Introduction to measurement and empirical testing of economic theories. Principles and methods of statistical inference are reviewed and applied to such ideas as law of demand and the consumption function. Training on widely used statistical software. Prerequisites: MATH 155 "C" or better grade, ECON 212 as pre or Corequisite. Three hours per week.

300. ECONOMIC HISTORY OF THE UNITED STATES
3 hours credit
Study of major developments in the American economy from the founding of colonies to the present, with emphasis on the economic factors contributing to U.S. industrial growth. Prerequisites: ECON 211, 212. Three hours per week.

305. INTERMEDIATE MACRO-THEORY
3 hours credit
Study of the theory of economic aggregates through the use of national income accounts to determine the effect of certain key variables on employment and production. Key variables studied include savings and investment, the quantity of money, the velocity of money, the rate of interest and consumption. Prerequisites: ECON 211, 212; and MATH 155, 201 (or 160). Three hours per week.

306. INTERMEDIATE MICRO-THEORY
3 hours credit
Study of supply and demand relationships under the various market classifications. Major topics include the market forms, the principles of production, costs of production, resource allocation and income distribution with some discussion of welfare economics. Prerequisites: ECON 211, 212; and MATH 155, 201 (or 160). Three hours per week.

331. MONEY AND BANKING
3 hours credit
Study of financial institutions, economic aspects of commercial banking, monetary economics, and banking and fiscal policy. Prerequisites: ECON 211, 212. Three hours per week.

336. PUBLIC SECTOR ECONOMICS
3 hours credit
Study of the principles, techniques and effects of obtaining and spending funds by governments and the management of governmental debt. Taxes and expenditures of all levels of government in the United States considered. Prerequisites: ECON 211, 212; and MATH 155. Three hours per week.

338. SPECIAL TOPICS IN ECONOMICS
3 hours credit
In-depth study of varying economic issues not covered in other economics courses. Students may repeat this course under a different topic. Prerequisites: ECON 211, 212. Three hours per week.

370. INDUSTRIAL ORGANIZATION
3 hours credit
Examines differences in how firms behave and perform under alternative market structures including monopolistic competition, oligopoly, monopoly and pure competition. Analyzes problems created by industrial concentration and public policies for dealing with these problems. Prerequisites: ECON 211, 212; and MATH 155. Three hours per week.

381. LABOR ECONOMICS
3 hours credit
Examination of factors which influence the number of job seekers and the number of jobs in the aggregate, and the efficiency with which the economic system utilizes its labor resources. Topics include individual decision-making with regard to education, job search strategy and hours of work as well as government policies affecting labor compensation, welfare and the right to bargain collectively. Prerequisites: ECON 211, 212; and MATH 155. Three hours per week.

402. COMPARATIVE ECONOMIC SYSTEMS
3 hours credit
Comparison of contemporary economic systems in various parts of the world. Includes a review of the core economic principles used to analyze economic systems and adopts a country- or region-specific approach to examine the tri-pillars of the world economy: the U.S., Japan and EU; developing and emerging economies in East Asia and Latin America; and the transitional economies of China and Russia. Focus is on the international comparison of economic systems in terms of its influence on economic outcomes such as resource allocation and macroeconomic stability. Prerequisites: ECON 211, 212. Three hours per week.

410. THE ECONOMICS OF HEALTH CARE
3 hours credit
Examines economic aspects of health care including special characteristics of the health care industry, economic behavior of health care consumers and providers, and the role of health insurance and government regulation. Compares health care finance and insurance in the U.S. and other advanced countries. Prerequisites: ECON 211, 212. Three hours per week.

411. ECONOMIC DEVELOPMENT
3 hours credit
Study of the theory of economic development and its application to the underdeveloped regions and countries of the world. Emphasis on the technological, locational and financial aspects of economic growth. Prerequisites: ECON 211, 212. Three hours per week.
415. ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

3 hours credit
Economics-based analysis of causes and consequences of environmental problems and environmental policy and a study of the critical issues in natural resource allocation. Topics include common pool resources, externalities, property rights, exhaustible and renewable resources, privatization and the economics of environmental policy formation. Students may not receive credit for both ECON 415 and 420. 
Prerequisite: ECON 211. Three hours per week.

430. ECONOMETRICS

3 hours credit
Principles of econometric model building, empirical testing and statistical inference. Introduction to the theory and application of time series and limited dependents variable models. 
Prerequisites: ECON 211, 212; MATH 155, 201 (or 160); INFO 281. Three hours per week.

441. INTERNATIONAL ECONOMICS

3 hours credit
Study of the basic economic concepts and theories for international business, international trade and finance, commercial policy, and foreign investment and multinational firms. 
Prerequisites: ECON 211, 212; MATH 155. Three hours per week.

460. APPLIED ECONOMICS WORKSHOP

3 hours credit
Practical experience with methods used by professional economists to measure economic conditions. Students collect, process, evaluate, interpret and report economic data. Satisfies ABLE requirement for business majors in economics track only. 
Prerequisite: Senior with major, minor or track in economics. Three hours per week.

492. SENIOR SEMINAR IN CONTEMPORARY ECONOMIC PROBLEMS

3 hours credit
Economics majors research problems of their own choosing and present a seminar paper. Focus on problems facing the American and world economies. 
Prerequisite: Economics major with senior status. Three hours per week.

494. DIRECTED STUDY IN ECONOMICS

1-3 hours credit
Supervised study in an area of interest to the advanced student. May be taken twice under different course topics. 
Prerequisites: Junior/senior status and permission of the instructor.

520. GRADUATE SURVEY OF ECONOMICS

3 hours credit
Introduction to the macro- and micro-economic principles. Examines the constraints and choices imposed on the firm by resource limitations, technology, the domestic and international competitive environments, the growth and stability of aggregate income and a wide range of public policies. The rationale for policies to modify or augment private production and spending decisions will be considered. M.B.A. leveling course. 
Prerequisites: Provisional status in M.B.A. program and MATH 160 and 155 and INFO 111 (or equivalents). Three hours per week.

630. ECONOMIC ENVIRONMENT OF THE ORGANIZATION

3 hours credit
A study of the structure of the financial system and its evolution, money and banking financial institutions, financial capital, the role of the Federal Reserve, and the macroeconomic forces that shape the economy. 
Prerequisite: Admission to M.B.A. program. Three hours per week.

631. MANAGERIAL ECONOMICS

3 hours credit
Builds upon basic economic principles by addressing specific concerns of managers, such as pricing, forecasting and production decisions. Presents theoretical and empirical analysis of factors affecting behavior of business costs and revenues. 
Prerequisite: Admission to M.B.A. program. Three hours per week.

EDUCATION (ECED, EDAD, EDUC, ELED, EMAT, REED, SCED)

NOTE: Education courses may be repeated only once.

ECED

215. FOUNDATIONS OF EARLY CHILDHOOD EDUCATION

3 hours credit
Introduction to educational programs serving children ages birth to 8 years. Considers early childhood history, programs, models and belief systems. Attention given to professional ethics and current trends and issues. Field experience required. Three hours per week.

320. INFANTS AND TODDLERS

3 hours credit
Provides a foundation for designing, implementing and evaluating developmentally appropriate programs for infants and toddlers. Attention is given to quality of adult-child interactions and the physical environment. Considers child development principles and diversity of family contexts. Field experience required. 
Prerequisites: Admission to Professional Teacher Education Program, ECED 215. Three hours per week.

323. PREPRIMARY CURRICULUM

3 hours credit
Basic principles and current research in early childhood curriculum with emphasis on planning programs with play-based, developmental curriculum for all children, including exceptional learners, from birth to 5 years. Includes developmental assessment supporting curriculum as an integrated and complementary process. Field experience required. 
Prerequisites: Admission to Professional Teacher Education Program, ECED 215. Three hours per week.

324. PRIMARY CURRICULUM I

3 hours credit
Explores the teaching and learning of mathematics, science and health for first through third grades. Emphasizes include an integrated approach, family connections and child development principles. Focus is on the creation of effective learning environments for diverse learners through the examination of content, methods, materials and assessment. Field experience required. 
Prerequisites: Admission to Professional Teacher Education Program, ECED 215. Three hours per week.

325. PRIMARY CURRICULUM II

3 hours credit
Explores the teaching and learning of social studies, creative arts and movement for grades first through third through an integrated approach with an emphasis on family and child development principles. Focus is on the creation of effective learning environments for diverse learners through the examination of content, methods, materials and assessment. Field experience required. 
Prerequisites: Admission to Professional Teacher Education Program, ECED 215. Three hours per week.
326. PARTNERSHIPS IN EARLY CHILDHOOD EDUCATION
3 hours credit
A comprehensive look at family-school-community partnerships in early childhood education. Emphasizes central role of families in the education of their children, respect and support for every family, and the creation of multiple opportunities for family involvement in early childhood programs. Prerequisites: Admission to Professional Teacher Education Program, ECED 215. Three hours per week.

327. INCLUSIVE EDUCATION FOR YOUNG CHILDREN
3 hours credit
Develops intervention tools and strategies that optimize the learning potential and well-being of young children in inclusive early childhood settings. Emphasis on collaborative efforts of educators, family and community agencies. Field experience required. Prerequisites: Admission to Professional Teacher Education Program, ECED 215. Three hours per week.

445. PREPRIMARY INTERNSHIP
6 hours credit
Supervised placement in public school prekindergarten or kindergarten classrooms. Students observe teaching, work with children, and teach and participate in activities for which regularly employed teachers are responsible. May not receive credit for both ELED 445 and ECED 445. Prerequisites: Early childhood major: early childhood internship criteria. Elementary education major: elementary directed teaching criteria, ECED 215, 323. (P/F)

446. PRIMARY GRADES INTERNSHIP
3 hours credit
Supervised placement in grades one through three. Interns observe teaching, work with children, teach and participate in activities for which regularly employed teachers are responsible. Prerequisites: Admission to Professional Teacher Education Program and Early Childhood Internship. Corequisites: ECED 450. Six hours per week. (P/F)

450. EARLY CHILDHOOD SEMINAR
3 hours credit
Seminar approach to current practices and trends in teaching preschool and kindergarten. Emphasis on responsive teaching, reflective practice, professional development and preparation of professional portfolio. Special attention to guidance of young children’s behavior. Prerequisites: Admission to Professional Teacher Education Program and Early Childhood Internship. Corequisites: ECED 445, 446. Three hours per week.

EDAD

516. PUBLIC SCHOOL ADMINISTRATION
3 hours credit
Analysis of the responsibilities of the school administrator, including procedures for staff organization, in-service training, curriculum development, scheduling, guidance and other facets of school administration. Three hours per week.

517. PUBLIC SCHOOL SUPERVISION
3 hours credit
Study of the nature, methods and techniques of public school supervision, emphasizing human relationships and other factors involved in the role of the supervisor. Prerequisite: EDAD 516. Three hours per week.

550. LEADERSHIP AND CHANGE
3 hours credit
Study of leadership dimensions necessary for establishing purposes and goals conducive to school effectiveness. Investigates collaborative and individual leadership roles and behaviors that will influence productivity and achievement and change and foster a positive educational climate. Prerequisite: EDAD 516. Three hours per week.

552. GROUP DYNAMICS IN SCHOOL ADMINISTRATION
3 hours credit
Study of the individual and group development within educational settings. Emphasis on research, theory and practice of leadership styles, decision-making processes, adult development and communication, and ethics in educational organizations. Prerequisites: EDAD 516, 517. Three hours per week.

553. FINANCIAL MANAGEMENT IN SCHOOL ADMINISTRATION
3 hours credit
Provides general knowledge of the basis of financial support for schools. Prerequisite: EDAD 516. Three hours per week.

554. PERSONNEL ADMINISTRATION IN EDUCATION
3 hours credit
Focus on the leadership role in managing and developing human resources in school settings. Explores the legal bases of personnel management as central to personnel selection, assignment, evaluation, improvement and possible termination. Also addresses bargaining practices and contract management. Prerequisite: EDAD 516. Three hours per week.

651. EVALUATION RESEARCH APPLICATIONS IN SCHOOL ADMINISTRATION
3 hours credit
Examination of the use of evaluation research as a basis for decisions about educational programs, products and goals. Students develop and carry out plans that use quantitative and qualitative methods to evaluate school-based problems. Prerequisite: EDUC 502. Three hours per week.

655. INTERNSHIP IN SCHOOL ADMINISTRATION/SUPERVISION
3 hours credit
Provides experience in administrative and/or supervisory activities in actual educational settings. Students must apply for internship approval four weeks prior to the beginning of the course. Prerequisites: All courses in the M.Ed. in administration/supervision program sequence. Three hours per week.

EDUC

210. SCHOOL IN A DIVERSE SOCIETY
3 hours credit
Sociological, historical and philosophical approach to the role of the school in an increasingly diverse society. Emphasis on development of knowledge, values and skills needed to live, learn, interact and work in a global society. Field experience required. Credit may not be received for both EDUC 210 and 305. Three hours per week.

300. DEVELOPMENT, LEARNING AND ASSESSMENT
3 hours credit
Physical, intellectual, emotional and social development of children (ages 3-18) with emphasis on adolescent development. Attention is given to student learning and assessment. Required field observation. Credit may not be received for both EDUC 300 and 304. Prerequisite: PSYC 101. Three hours per week.

304. LEARNING AND ASSESSMENT
3 hours credit
Examines concepts, principles, theories and research related to teaching and learning for diverse populations across grade levels. Explores traditional and nontraditional strategies for assessing student learning. Field experience is included. Credit may not be received for both EDUC 300 and EDUC 304. Three hours per week.
318. COMPUTERS IN EDUCATION
3 hours credit
Overview of the role of computers in education. Examination of computer applications and their relation to specific teaching/learning operations and educational functions in the pre-K-12 classroom. Prerequisite: Admission to Professional Teacher Education Program. Three hours per week.

319. TECHNOLOGY IN EDUCATION
1 hour credit
Overview of the role of technology in education. Examines computer applications and their use as tools in the constructivist classroom. Issues and classroom management techniques for using technology in the classroom will be explored. Field experience is required. Prerequisites: Admission to Professional Teacher Education Program, ability to create documents using word processing, spreadsheets, presentations with software such as PowerPoint and Web pages. One hour lecture, 50 minute laboratory per week.

409. LITERATURE FOR ADOLESCENTS
3 hours credit
Study of literature for and about contemporary adolescents. Emphasis on methods of teaching that build adolescent appreciation for the more established literary selections in secondary school curriculum. Prerequisite: Admission to the Professional Teacher Education Program. Three hours per week.

415. INSTRUCTIONAL TECHNIQUES FOR INCLUSION
3 hours credit
Develops skills for creating and implementing curricular, instructional and environmental modifications/accommodations to meet the social, affective, behavioral and cognitive needs of exceptional students. In depth study of collaborative processes involving family, community, school staff and special education teachers in developing and implementing IEPs as well as developing the support system necessary for inclusion. Prerequisite: Admission to Professional Teacher Education Program; ELED 310, 316, 317, EDUC 318. Corequisite: ELED 309. Three hours per week.

416. CLASSROOM MANAGEMENT
3 hours credit
Explores the ability to create and maintain productive learning environments. Emphasis on development of learner responsibility, promotion of positive social relationships, interdependence of effective instruction and management, and prevention/intervention strategies. Consideration given to accommodating diversity and communicating with families. Field experience included. Prerequisites: Admission to Professional Teacher Education Program; ELED 310, 316, 317, EDUC 318. Corequisite: ELED 309. Three hours per week.

432. LITERACY AND ESOL READING
3 hours credit
Introduces students interested in questions of language acquisition to the theories and practices relating to learning to read in a second language or second dialect. Topics include writing, reading, listening, speaking, and cultural and social implications of second language/dialect literacy. Prerequisite: ENGL 430 or permission of instructor. Three hours per week.

440. INTRODUCTION TO EARLY CHILDHOOD EDUCATION
3 hours credit
Introduction to curriculum and methods in early childhood education, including theories, practices, techniques and materials. Attention to art, music, nutrition, safety, health education, motor activities and positive teacher-parent relations. Field experience required. Prerequisites: EDUC 300 and declared elementary education major. Three hours per week.

443. LITERACY AND ESOL WRITING
3 hours credit
Introduces students interested in questions of language acquisition to the theories and practices of learning to write in a second language or second dialect. Topics include writing, reading, listening, speaking, and cultural and social implications of second language/dialect literacy. Prerequisite: English 309 or permission of instructor. Three hours per week.

462. DIRECTED TEACHING IN HEALTH
12 hours credit
Directed student teaching experience in public schools under the direction of the public school teacher and supervision from the University staff. One full semester is required to qualify for Maryland teacher certification. Prerequisites: Admission to Professional Teacher Education Program, student teaching criteria. Corequisite: EDUC 463. (P/F)

463. SEMINAR IN HEALTH EDUCATION
3 hours credit
Designed to facilitate the transition of candidates from the role of student to professional. Provides a forum for discussion of issues pertinent to current practices, trends and issues in health education during the student teaching experience. Prerequisites: Admission to Professional Teacher Education Program, student teaching criteria. Corequisite: EDUC 462. Three hours per week. (P/F)

475. METHODS AND MATERIALS IN ENVIRONMENTAL EDUCATION
3 hours credit
Increases students’ awareness of their immediate environment with the aim of developing a broad philosophy of environmental education. Existing teaching methods and materials analyzed and new methods developed for use in interdisciplinary, problem-focused situations. Prerequisite: Senior standing. Three hours per week.

491. INDEPENDENT STUDY
1-3 hours credit
Permits self-study of problems not considered in other courses. May be taken twice under different subtitles. Prerequisite: Approval of course instructor and department chair.

500. HISTORICAL, PHILOSOPHICAL AND SOCIAL FOUNDATIONS
3 hours credit
Selected topics in intellectual and educational history from the time of ancient Greece to the present. The relation of education to historic traditions and social trends. Three hours per week.

502. INTRODUCTION TO RESEARCH
3 hours credit
Introduction to quantitative and qualitative methods of scientific inquiry. Students gain experience in the use of research in defining a problem and in collecting, organizing and presenting information on it. Three hours per week.

503. CLASSROOM MANAGEMENT
3 hours credit
Aids teachers in developing practical skills needed to manage their classes more effectively. Recent research related to effective management techniques and its application in classrooms will be considered. Appropriate management strategies will be selected, implemented and evaluated in the classroom. Three hours per week.
504. MULTICULTURAL EDUCATION
3 hours credit
Examination of contemporary cultural diversity within the United States educational environments. Special attention given to cultural problems and issues that influence opportunities and performance in educational institutions. Human relations skills considered for improving success within culturally diverse populations. **Prerequisite:** EDUC 502. **Three hours per week.**

506. SEMINAR IN TEACHING OF MATHEMATICS
3 hours credit
Analysis of recent theory and results of research for the teaching of mathematics. Students investigate developments at either the elementary or secondary school level. **Three hours per week.**

507. TESOL INTERNSHIP I
3 hours credit
One full-time, seven week clinical experience provides opportunity to actualize the latest educational research and theory into practice, including, but not exclusive to: observation, mini-teaching, macro-teaching, whole group lessons and action research. Conducted under the direct supervision of a clinical supervisor. **Prerequisites:** Completion of all course work in the M.A./TESOL certification sequence prior to the internship, with an overall program GPA of 3.0; passing scores on Praxis I. **Corequisites:** EDUC 509 and 511. **Three hours per week.**

508. SEMINAR: RESEARCH IN HUMAN DEVELOPMENT
3 hours credit
Survey of research techniques and findings in the field of human growth and development. Research related to developmental characteristics of students considered. **Prerequisite:** EDUC 300 or permission of instructor. **Three hours per week.**

509. TESOL INTERNSHIP II
3 hours credit
One full-time, seven week clinical experience provides opportunity to actualize the latest educational research and theory into practice, including, but not exclusive to: observation, mini-teaching, macro-teaching, whole group lessons and action research. Conducted under the direct supervision of a clinical supervisor. **Prerequisites:** Completion of all course work in the M.A./TESOL certification sequence prior to the internship, with an overall program GPA of 3.0; passing scores on Praxis I. **Corequisites:** EDUC 507 and 511. **Three hours per week.**

510. SEMINAR: RECENT ISSUES IN EDUCATION
3 hours credit
Analysis of selected issues in education. Students required to survey and critically evaluate pertinent research on at least one issue. **Three hours per week.**

511. TESOL INTERNSHIP SEMINAR
3 hours credit
Forum for discussing problems encountered during the internship. Colloquium for developing strategies to resolve problems. **Prerequisites:** Completion of all course work in the M.A./TESOL sequence prior to the internship and passing scores on the Praxis I. **Corequisites:** EDUC 507, 509. **Three hours per week.**

512. SEMINAR IN THE TEACHING OF SOCIAL STUDIES
3 hours credit
Analysis of theory and research in the social sciences as applied to developing and teaching social studies at either the elementary or secondary school level. **Three hours per week.**

513. SEMINAR IN THE TEACHING OF SCIENCE
3 hours credit
Analysis of recent advances in the teaching of science and the development of skills in applying these to classroom teaching at the elementary or secondary school level. **Three hours per week.**

514. CURRICULUM CONSTRUCTION
3 hours credit
Study of the factors underlying the public school curriculum and its development. Opportunities are provided for individual research in curriculum construction at either the elementary or secondary school level. **Three hours per week.**

515. EASTERN SHORE WRITING PROJECT SUMMER INSTITUTE
6 hours credit
Explores current theories about the composing process and their implications for teaching writing and using writing to teach other content areas. Focuses on adapting and evaluating classroom activities for different grade levels and educational settings. Cross-listed with ENGL 515. **Prerequisite:** Permission of the instructor.

520. THE DIAGNOSIS OF READING DISABILITIES
3 hours credit
Designed for professional personnel seeking specialization in clinical diagnostic techniques. Includes data collection and analysis of reading behavior and examines various instruments and strategies for collection of data on children with reading disabilities. **Three hours per week.**

521. THE REMEDIATION OF READING DISABILITIES
3 hours credit
Designed for professional personnel seeking specialization in clinical-remedial techniques. Includes transfer of diagnostic data into teaching strategies and materials for remedial programs. **Prerequisite:** EDUC 520. **Three hours per week.**

522. CLINICAL PRACTICUM IN READING
3 hours credit
Designed for professional personnel seeking advanced work in clinical, diagnostic and remedial techniques. Includes diagnosis and remediation of children with severe reading disabilities. Emphasizes collection and analysis of test data and development of instructional programs for the severely disabled. **Prerequisite:** EDUC 521. **Three hours per week.**

526. SEMINAR: MEDIA, TECHNOLOGY AND INSTRUCTIONAL SYSTEMS
3 hours credit
Seminar designed to acquaint students with the dynamics of media, technology and instructional systems via required outside readings and in-class discussions; and involve students in an in-depth investigation of a pertinent topic selected in consultation with the instructor. **Paper required. Prerequisites:** EDUC 407 or equivalent, EDUC 502 and permission of instructor. **Three hours per week.**

528. ESOL TESTS AND MEASUREMENTS
3 hours credit
Introduces students to present-day language theory and practice. The objectives are not only to increase students' skill in writing classroom language tests and assessing standardized instruments, but also to improve their ability to evaluate language research in which testing plays a part. **Prerequisite:** ENGL 430 or permission of instructor. **Three hours per week.**

533. FOUNDATIONS OF EARLY CHILDHOOD EDUCATION
3 hours credit
Explores the historical and philosophical foundations of early childhood education. Includes an introduction to curriculum...
and methods with an emphasis on theories, practices, strategies and materials. **Three hours per week.**

537. SEMINAR IN EARLY CHILDHOOD EDUCATION
3 hours credit
Critical evaluation of developments occurring in early childhood education, as well as antecedents of modern practices. Review of pertinent research influencing shifts in ideas, practices and policies. **Three hours per week.**

545. LEARNING AND INSTRUCTION IN THE SCHOOLS
3 hours credit
Identification of classroom problems and issues related to and involving instruction; the development and application of strategies to aid in resolving issues and solving problems; and the coordination of student characteristics and environmental factors to improve the quality of learning experiences in the schools. **Three hours per week.**

547. ESOL METHODS
3 hours credit
The study of philosophy, aims and methods of teaching English as a second language in grades 1-12 with emphasis upon theories, techniques and materials in current use. Graduate scholarship expected. **Prerequisite:** ENGL 536 or permission of instructor, admission to the Professional Education Program. **Three hours per week.**

555. PRACTICUM FOR TEACHING PROFESSIONALS
3 hours credit
A five-week course under the direction of an experienced teacher/mentor and a University supervisor that provides classroom experience in an additional area of teaching certification, all requiring three hours of credit. **Three hours per week.**

555. PRACTICUM FOR TEACHING PROFESSIONALS
3 hours credit
A five-week course under the direction of an experienced teacher/mentor and a University supervisor that provides classroom experience in an additional area of teaching certification, all requiring three hours of credit. **Three hours per week.**

557. SCHOOL-COMMUNITY RELATIONS
3 hours credit
Focuses on the role and responsibility of school leaders in communication with the public and in building support for the school. A study of training programs and the roles of the various personnel in the school. Students will research topics and prepare multimedia presentations. **Three hours per week.**

558. MATERIALS FOR TEACHING READING
3 hours credit
Examines the physiological, cognitive, social and instructional influences on the development of language. Explores the instructional implications for balanced literacy instruction in sensory-rich environments to promote literate growth. Intended for in-service elementary teachers. **Three hours per week.**

561. SEMINAR: ISSUES AND TRENDS IN POSTSECONDARY EDUCATION
3 hours credit
Opportunities for research-based examination of selected current issues in postsecondary education and for students to share the efforts of their investigations on topics of interest. **Three hours per week.**

563. TEACHING ADULTS
3 hours credit
For students in the post-secondary education track of the M.Ed. program and those in other fields seeking information and contemporary methods of effective adult instruction. Assumes no prior knowledge or experience about instructional methods, theories or practices. **Three hours per week.**

567. COLLABORATIVE TEACHING AND MENTORING
3 hours credit
Seeks to equip teachers with strategies for co-teaching and mentoring interns, novice teachers and paraprofessionals. While the primary focus will be on the intern-mentor relationship in professional development school (PDS) settings, the strategies of collaboration, differentiation of instruction and mentoring are relevant for all teachers. **Three hours per week.**

570. CURRENT ISSUES IN EDUCATIONAL TECHNOLOGY
3 hours credit
Opportunities to examine selected current issues in educational technology. Examines educational technology as a tool in the classroom. Focuses on learning theories, classroom management, cooperative learning, assessment, the one-computer classroom, gender issues, the digital divide, instructional technology, instructional software and distance learning. Students will research topics and prepare multimedia presentations. **Three hours per week.**

571. TELECOMMUNICATIONS IN EDUCATION
3 hours credit
Examines the use of telecommunications to bring information and resources from around the world into the classroom. Develops activities for teaching collaborative projects, corresponding with students and teachers in other countries, gathering and analyzing data, and conducting research in K-16 classrooms. Explores lesson design for integration of Internet into the classroom, including WebQuests. **Prerequisite:** Basic computer skills (file management, word processing, e-mail, Internet searches).

572. PROCESSES AND ACQUISITION OF READING
3 hours credit
Examines the physiological, cognitive, social and instructional influences on the development of language. Explores the instructional implications for balanced literacy instruction in sensory-rich environments to promote literate growth. Intended for in-service elementary teachers. **Three hours per week.**

573. ASSESSMENT FOR READING INSTRUCTION
3 hours credit
Examines assessment instruments and processes employed at classroom, district, state and national levels. Promotes teacher decision-making by exploring the relationship between assessment and instruction. Develops ability to communicate assessment results to students, parents and school personnel. Intended for in-service elementary teachers. **Three hours per week.**

574. MATERIALS FOR TEACHING READING
3 hours credit
Examines strategies for motivating students to read widely, for selecting and evaluating materials, and for organizing classroom instruction with text. Intended for in-service elementary teachers. **Three hours per week.**
575. INSTRUCTION OF READING  
3 hours credit  
Focuses on developing elementary environments fostering appropriate literacy skills and knowledge. Shows teachers how to use a balanced program of graphophonics, semantics and syntactics in teaching reading, appropriate early identification strategies to assist students with special literacy needs or low achievement. Three hours per week.

578. SEMINAR IN TEACHING SECONDARY ENGLISH  
3 hours credit  
Engages students in in-depth examination of current issues in literacy instruction for secondary students. General nature of issues remains constant but particular focus varies semester to semester, to reflect current thought. Three hours per week.

579. TRENDS IN ELEMENTARY LITERACY EDUCATION  
3 hours credit  
Grounds methods of teaching language and literacy in current knowledge and theory of language and literacy acquisition. Students take an active role in building personal theory to guide their practice in elementary literacy instruction. Three hours per week.

580. TRENDS IN MATHEMATICS AND SCIENCE EDUCATION IN THE ELEMENTARY SCHOOL  
3 hours credit  
Critical review and analysis of current issues, research and practices in the teaching and learning of science and mathematics in the elementary school. Emphasis on exploring the expanding knowledge base in each discipline. Three hours per week.

581. TRENDS IN SOCIAL STUDIES EDUCATION IN THE ELEMENTARY SCHOOL  
3 hours credit  
Examines the current perspectives, trends, issues and controversies in the field of social studies education, both in relation to content and pedagogy. Considers social studies in terms of its relationship to the social science disciplines. Three hours per week.

582. TEACHING READING IN THE CONTENT AREAS: PART I  
3 hours credit  
Provides knowledge of the reading process, instructional strategies and materials used, drawn from research-based recommendations for using text in secondary content areas. Intended for M.Ed. candidates and other in-service teachers. Three hours per week.

583. TEACHING READING IN THE CONTENT AREAS: PART II  
3 hours credit  
Provides in-depth study of literacy needs of diverse populations. Includes instructional and assessment methods in reading and writing. Intended for all secondary and K-12 teachers. Three hours per week.

584. GROUP DYNAMICS IN CLASSROOM SETTINGS  
3 hours credit  
Aids educators in working effectively with groups in school settings. Laboratory method used to provide experience-based learning about group processes. Recent research on group dynamics and its application in school settings considered. Emphasis on the acquisition of skills and strategies in developing effective classroom groups. These skills are particularly helpful in situations where students are being mainstreamed. Three hours per week.

585. TECHNOLOGY TOOLS FOR TEACHING AND LEARNING  
3 hours credit  
Examines the use of graphics, word processing, spreadsheets and databases to enhance learning. Develops the ability to use these tools and challenges students to use them as they solve problems. Students design learning activities for K-12 students that utilize technology tools to support authentic, constructivist, problem-based learning. Students evaluate software for appropriate use in the classroom. Prerequisite: Basic computer skills (file management, word processing, e-mail, Internet searches). Three hours per week.

586. CONFLICT RESOLUTION AND PEER MEDIATION  
3 hours credit  
Prepares educators to resolve conflicts with students, faculty and administration. Participants learn how to teach conflict resolution skills to students and how to institute peer mediation programs at the classroom and school levels. Three hours per week.

587. COOPERATIVE LEARNING  
3 hours credit  
Provides students with skills to effectively utilize cooperative learning in the classroom. Class and team building, teaching of social skills and the use of appropriate cooperative learning structures emphasized. Three hours per week.

588. SEMINAR: EDUCATING INDIVIDUALS WITH DISABILITIES  
3 hours credit  
Special education services and issues from the perspective of elementary and secondary teachers. Focus on the inclusion model for various categories of disability. Prerequisite: EDUC 502.

590. SEMINAR IN EDUCATION  
3 hours credit  
Topics vary semester to semester. May be taken twice under different course subtitles. Prerequisite: Permission of instructor.

592. SPECIAL TOPICS IN TECHNOLOGY  
3 hours credit  
Focuses on specific content areas and investigates strategies for integrating technology into performance-based teaching and learning to enhance student achievement. Students design performance-based teaching and assessment tasks that integrate technology into curriculum. Topics and issues will change to focus on different subject areas. May be repeated once under different topic. Prerequisites: EDUC 571, 589. Three hours per week.

619. THE LAW AND PUBLIC EDUCATION  
3 hours credit  
Study of school law which affects the teacher and the public. Nature and scope of school law considered as generally applied to the purpose and functions of the school system. Prerequisite: EDUC 502 and any two 500-level EDUC courses. Three hours per week.

630. DIRECTED RESEARCH  
3-6 hours credit  
Preparation of optional research project in master’s degree program under direction of departmental supervision.

632. CLASSROOM ASSESSMENT  
3 hours credit  
Examination of the role of evaluation in assessing classroom learning. Evidence of student learning gathered from traditional and alternative assessment practices. Benefits and limitations of these assessment practices identified. Prerequisites: EDUC 502 and any two EDUC 500-level courses. Three hours per week.

634. EARLY CHILDHOOD CURRICULUM AND ASSESSMENT  
3 hours credit  
Analysis of early childhood program models, curricula and
assessment methods. Examines philosophical and theoretical orientations, related research and societal needs. **Prerequisite:** EDUC 502 and any two EDUC 500-level courses. **Three hours per week.**

### 636. CREATIVITY IN EARLY CHILDHOOD EDUCATION

**3 hours credit**

In-depth study of the creative process and the techniques that will promote creativity. **Prerequisite:** EDUC 502 and any two EDUC 500-level courses. **Three hours per week.**

### 638. LANGUAGE DEVELOPMENT IN EARLY CHILDHOOD

**3 hours credit**

Advanced study of the development of language, literacy and communication skills in children, birth through age eight. Examines current issues and research with emphasis on classroom application. **Prerequisite:** EDUC 502 and any two EDUC 500-level courses. **Three hours per week.**

### 655. INTERNSHIP IN POSTSECONDARY EDUCATION

**3 hours credit**

Supervised, on-site field experiences and a series of seminars with other interns. Experimental learning enhanced by guided readings, interaction with professional practitioners, participation in activities of the host agency, completion of a major project and seminar discussions. **Prerequisite:** Permission of M.Ed. coordinator.

### 689. MULTIMEDIA IN THE CONSTRUCTIVIST CLASSROOM

**3 hours credit**

Examines advanced multimedia authoring tools for designing K-16 classroom instruction. Develops multimedia skills such as sound, video, graphics, PowerPoint and Hyperstudio. Plans multimedia projects that include performance-based indicators for each instructional unit. Examines principles of constructivism, lesson design for student projects and assessment strategies. **Prerequisite:** Basic computer skills (file management, word processing, e-mail, Internet searching), EDUC 502, any two EDUC 500-level courses. **Three hours per week.**

### 691. DIRECTED INDEPENDENT STUDY

**1-3 hours credit**

Permits self-study of problems not considered in other courses. May be taken twice under different course subtitles. **Prerequisites:** Approval of course instructor and M.Ed. coordinator. EDUC 502 and six additional graduate credits.

### 694. TECHNOLOGY FOR SCHOOL IMPROVEMENT

**3 hours credit**

Examines the role of professional development in the process of school improvement. Focuses on research and best practices for most effective uses of technology, literature on the change process, and goals targeted in Maryland school improvement plans. Students examine ways that technology can enhance professional development and create their own professional development plans. **Prerequisite:** EDUC 502, 570, any two EDUC 500-level courses. **Three hours per week.**

### 695. RESEARCH SEMINAR

**3 hours credit**

Capstone experience for students in the M.Ed. program. Students utilize research skills in completing a project based on a topic related to their concentration. Project must be presented to a professional audience. Students also reflect on how the M.Ed. program has made a difference in their professional lives. **Prerequisites:** EDUC 502, 24 hours of M.Ed. graduate credit.

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**ELED**

### 309. CLASSROOM VISITATIONS

**0 hours credit**

Full-time students in elementary education methods courses must take ELED 309 and observe in a classroom for at least one-half day per week. Students in the semester before internship observe in a classroom for a full day per week. Part-time students should consult with the elementary education program coordinator to establish an appropriate observation schedule. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** Any of the following elementary professional education courses: ELED 310, 311, 312, 313, 316, 317, 408, 427, EDUC 415, 416. **One-half day per week.**

### 310. LANGUAGE ARTS INSTRUCTION

**3 hours credit**

Introduces the processes of communication and strategies for promoting growth in these areas in the elementary and middle school. Emphasis on language acquisition, oral and written language development, viewing, diverse language learners, and the relationship of language proficiency to literacy development. Field experiences and reflective evaluation included. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** ELED 309. **Three hours per week.**

### 311. MATHEMATICS INSTRUCTION

**3 hours credit**

Selection and creation of meaningful mathematics learning experiences for elementary and middle school students. Attention given to use of technology, manipulatives, literature, and assessment that support mathematical thinking and learning in diverse classrooms. Field experiences and reflective evaluation included. **Prerequisites:** Admission to Professional Teacher Education Program, MATH 130, 155, 230. **Corequisite:** ELED 309. **Three hours per week.**

### 312. SCIENCE INSTRUCTION

**3 hours credit**

Introduces the processes of science that facilitate student learning in elementary and middle schools. Emphasis on planning, teaching and assessment with a focus on inquiry and understanding of everyday phenomena. Attention given to environmental education. Field experiences and reflective evaluation included. **Prerequisites:** Admission to the Professional Teacher Education Program, BIOL 101, CHEM/PHYS 101, GEOG 104. **Corequisite:** ELED 309. **Three hours per week.**

### 313. SOCIAL STUDIES INSTRUCTION

**3 hours credit**

Selection, organization, presentation and assessment of meaningful social studies learning experiences for elementary and middle school students. Attention given to technology, literature, and local resources that support learning in diverse classroom settings. Field experiences and reflective evaluations included. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** ELED 309. **Three hours per week.**

### 316. READING INSTRUCTION

**3 hours credit**

Introduction to balanced literacy instruction. Includes developmentally appropriate word recognition and comprehension strategies, activities, materials and programs coupled with organization and grouping procedures to maximize literacy learning for diverse populations. Field experiences and reflective evaluations included. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** ELED 309. **Three hours per week.**
317. CREATIVE ARTS INSTRUCTION
3 hours credit
Provides a basic arts knowledge base along with reasons and techniques for incorporating the arts throughout the elementary and middle-school curriculum. Emphasizes infusing the arts in teaching, an alternative approach to the traditional view of the arts solely as enjoyable "add-ons." Prerequisite: Admission to Professional Teacher Education Program. Corequisite: ELED 309. Three hours per week.

401, 402. DIRECTED TEACHING IN THE ELEMENTARY AND MIDDLE SCHOOL: I, II
6 hours credit each
Engages pre-service teachers in observation, planning, teaching, assessment and collaboration in order to support and enhance student learning and well-being. Participation in activities required of fully employed teachers. Emphasis on reflective evaluation and professional growth. Placement in local schools. Prerequisites: Admission to Professional Teacher Education Program; fulfillment of directed teaching criteria. ELED 401 is a prerequisite to ELED 402; a grade of NR will be assigned to those who satisfactorily complete ELED 401 until successful completion of 402. Corequisite: ELED 411. (P/F)

408. CHILDREN’S LITERATURE
3 hours credit
Study of classic and contemporary literature for children. Emphasis on selecting and incorporating a wide variety of literature into the elementary and middle school curriculum. Technological and media resources are included. Prerequisites: Admission to Professional Teacher Education Program; ELED 310, 316, 317, EDUC 318. Corequisite: ELED 309. Three hours per week.

411. INSTRUCTIONAL ANALYSIS IN THE ELEMENTARY AND MIDDLE SCHOOL
3 hours credit
Seminar approach to current practices and trends in teaching. Involves interaction analysis, evaluation techniques and strategies, instructional planning, self-assessment and reflection, and preparation of professional portfolio. Prerequisites: Admission to the Professional Teacher Education Program and directed teaching. Corequisites: ELED 401, 402. Three hours per week.

419. TEACHING MUSIC AND READING IN THE ELEMENTARY SCHOOL
3 hours credit
Techniques for teaching music and reading content in preschool through grade 6. Emphasis on vocal, instrumental and general music. Comprehensive overview of creative activities utilizing music/reading materials and their application to the elementary school curriculum. Offered for undergraduate credit. Prerequisite: Admission to Professional Teacher Education Program. Corequisite: ELED 309. Three hours per week.

427. CLASSROOM ASSESSMENT AND INTERVENTION IN READING
3 hours credit
Deals with a variety of formal and informal assessment techniques, processes and instruments from classroom, state, and national sources used to make appropriate instructional decisions in literacy for diverse populations. Includes early intervention strategies and reporting to parents. Prerequisites: Admission to Professional Teacher Education Program; ELED 310, 316, EDUC 318. Corequisite: ELED 309. Three hours per week.

430. DIRECTED TEACHING IN MUSIC IN THE ELEMENTARY SCHOOL
6 hours credit
Student teaching experience in all aspects of the elementary school music curriculum at several grade levels under the direction of public school music teacher, with supervision from the University staff. Includes observation and participation in the classroom as well as actual teaching and other activities and duties normally performed. Prerequisites: Completion of courses in the music concentration through the third year, ELED 419, SCED 429, written approval of the Music Department, admission to Professional Teacher Education Program. (P/F)

441. EARLY CHILDHOOD EDUCATION INTEGRATED CURRICULUM I
3 hours credit
Study of materials and methods for teaching language arts to kindergarten and pre-kindergarten level children. Emphasis on curriculum planning, use of space, class management and lesson planning. Prerequisites: EDUC 440 and admission to professional teacher education program. Three hours per week.

442. EARLY CHILDHOOD EDUCATION INTEGRATED CURRICULUM II
3 hours credit
Study of materials and methods for teaching science, social studies and math readiness to kindergarten and pre-kindergarten level children. Emphasis on curriculum planning, room design, class management, lesson planning, field trip planning and professional development. Prerequisites: EDUC 440 and admission to professional teacher education program. Three hours per week.

EMAT

500. RESEARCH AND TECHNOLOGY I
3 hours credit
Introduces students to the three basic forms of research: historical, descriptive and experimental, with an emphasis on incorporating them into classroom teaching. ERIC and other databases used in library research. Provides a technological base for the development of videotapes, portfolios and a research methodology for subsequent courses. Qualitative and quantitative data treatments developed within the context of individual student projects and the evaluation of the research literature. Prerequisite: Admission to M.A.T. program. Three hours per week.

501. DEVELOPMENT AND LEARNING APPLIED TO TEACHING
3 hours credit
Examines theory and research in human development and learning psychology with application to teaching in contemporary middle and secondary schools. Emphasis on translating theory into practice by integrating field experiences, classwork, student projects, assignments and exams. Prerequisite: Admission to M.A.T. program. Three hours per week.

502. SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF CONTEMPORARY EDUCATION
3 hours credit
Analysis of social and philosophical tenets of education, with an emphasis on implications for contemporary middle and secondary schools. Examines current trends, issues, research and practice. Field experiences involving community educational and social service agencies required. Prerequisite: Admission to M.A.T. program. Three hours per week.

503. PRINCIPLES OF CURRICULUM CONSTRUCTION
3 hours credit
Historical and current influences on curriculum developments and classroom applications; examines underlying principles, philosophical and social influences on strategic planning processes and school improvements. Emphasis on technological impacts on curriculum and instruction. Curriculum
strands, research studies and products reviewed and assessed. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 504. TEACHING READING IN THE CONTENT AREAS I

**3 hours credit**
Knowledge of the reading process, instructional strategies and materials use, drawn from research-based recommendations for using text in secondary content areas. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 505. METHODS OF TEACHING AND ASSESSMENT

**3 hours credit**
Effective instructional methods and educational assessment procedures. Examines general principles related to planning and delivering instruction. Emphasizes connection between assessment and instruction. Presents informal and formal assessment procedures. Field experience required. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 506. INCLUSIVE TEACHING FOR DIVERSE POPULATIONS

**3 hours credit**
Survey of special education and multicultural education. Instructional implications of diversity in the classroom. Current trends and instructional strategies for inclusion will be discussed and research opportunities provided. Field experiences. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 507, 509. M.A.T. INTERNSHIP I & II

**3 hours credit each**
Two full-time, seven-week clinical experiences providing opportunities to actualize the latest educational research and theory into practice, including but not exclusive to observation, mini-teaching, macro-teaching, whole group lessons and action research. Conducted under the direct supervision of a clinical supervisor (experienced public school teacher) with guidance and support from the university supervisor. **Prerequisite:** Admission to the M.A.T. program. **Corequisite:** EMAT 511.

### 508. TEACHING READING IN THE CONTENT AREAS II

**3 hours credit**
In-depth study of literacy needs of diverse populations. Includes instructional and assessment methods in reading and writing. **Prerequisites:** Admission to the M.A.T. program, EMAT 504. ***Three hours per week.***

### 510. APPLIED RESEARCH AND TECHNOLOGY II

**3 hours credit**
Complete and present portfolios, action research projects and seminar papers. Integrates educational technology, especially as it applies to teaching in the schools. **Prerequisites:** Successful completion of EMAT 507, 509, 511. ***Three hours per week.***

### 511. M.A.T. INTERNSHIP SEMINAR

**3 hours credit**
Forum for discussing problems encountered during the internship. Colloquium for developing strategies to resolve these problems. **Prerequisite:** Admission to M.A.T. program. **Corequisites:** EMAT 507, 509. ***Three hours per week.***

### 512. CLASSROOM MANAGEMENT: THEORY AND PRACTICE

**3 hours credit**
Provides the student with a repertoire of strategies to create a classroom environment that facilitates optimal learning. Different classroom management theories will be explored and evaluated for appropriateness in a given situation. Special attention is given to accommodating diversity and strategies for effectively communicating with families is considered. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 514. SECONDARY SCHOOL PHYSICAL EDUCATION

**3 hours credit**
A study of methods used in teaching physical education, intended to develop a philosophy of teaching physical education that will enable the candidate to analyze and make decisions about students, curriculum and instruction. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 515. RESEARCH AND TECHNOLOGY

**3 hours credit**
Introduces students to the three basic forms of research: historical, descriptive and experimental, with an emphasis on incorporating them into classroom teaching. ERIC and other databases will be used in library research. Technological base will be provided for: the development of videotapes, portfolios and a research methodology for subsequent courses. Qualitative and quantitative data treatments will be developed within the context of individual student projects and the evaluation of research literature. Educational technology, especially as it applies to teaching in schools, will be integrated into the participants' project. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 516. ELEMENTARY SCHOOL PHYSICAL EDUCATION

**3 hours credit**
This course is designed for future physical education teachers. The purpose of this course is to provide the student with specific information about a developmental elementary physical education program. It allows students to learn and apply a skill-themes approach to movement concepts and generic levels of skill proficiency by developing a variety of age-appropriate activities for various grade levels. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 517. TEACHING MUSIC AND READING IN THE ELEMENTARY SCHOOL

**3 hours credit**
Techniques for teaching music and reading content in preschool through grade 6. Emphasis on vocal, instrumental and general music. Comprehensive overview of creative activities utilizing music/reading materials and their application to the elementary school curriculum. Development of a sound rationale for teaching music in elementary schools and will include a half day per week of classroom observations. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 518. MATHEMATICS AND READING METHODS IN THE SECONDARY SCHOOL, PART I

**3 hours credit**
First of a two course sequence for analysis of the secondary school program in mathematics, with an emphasis on methods of teaching mathematical concepts and understandings. Also an emphasis on strategies, skills and instruction in content area reading. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 519. TEACHING MUSIC AND READING IN THE SECONDARY SCHOOL

**3 hours credit**
Techniques for teaching music and reading content in grades 7 through 12. Emphasis on vocal, instrumental and general music. Comprehensive overview of creative activities utilizing music/reading content II materials and their application to the secondary school curriculum. Development of a sound rationale for teaching music in the secondary schools and will include one full day a week of classroom observations. **Prerequisite:** Admission to M.A.T. program. ***Three hours per week.***

### 520. MATHEMATICS AND READING METHODS IN THE SECONDARY SCHOOL, PART II

**3 hours credit**
Continuation of EMAT 518, including organization of teaching
units, assessment, observation and evaluation of teaching in school settings. In-depth study of literacy needs of diverse students populations including instructional and assessment strategies in reading and writing. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 518. Three hours per week.

521. TEACHING ENGLISH IN THE SECONDARY SCHOOL 3 hours credit
Prepares prospective teachers to teach English in middle and high schools. Students integrate their content knowledge with the basic teaching methodologies of preparing objectives, effective questioning, curriculum and resource evaluations, teacher presentations, cooperative learning, demonstrations and experiments, student projects, classroom management, lesson and unit planning. Students placed with a high school or middle school English teacher for observations and bit teaching experiences. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 501, 502. Three hours per week.

522. SECONDARY SCHOOL SCIENCE METHODS 3 hours credit
Prepares prospective teachers to teach science in middle and high schools. Students integrate their content knowledge with the basic teaching methodologies of preparing objectives, effective questioning, curriculum and resource evaluations, teacher presentations, cooperative learning, demonstrations and experiments, student projects, classroom management, lesson and unit planning. Students placed with a high school or middle school science teacher for observations and bit teaching experiences. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 501, 502. Three hours per week.

523. SECONDARY SCHOOL SOCIAL STUDIES METHODS 3 hours credit
Prepares prospective teachers to teach social studies in middle and high schools. Students integrate their content knowledge with the basic teaching methodologies of preparing objectives, effective questioning, curriculum and resource evaluations, teacher presentations, cooperative learning, demonstrations and experiments, student projects, classroom management, lesson and unit planning. Students placed with a high school or middle school social studies teacher for observations and bit teaching experiences. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 501, 502. Three hours per week.

524. SECONDARY SCHOOL FOREIGN LANGUAGE METHODS 3 hours credit
Prepares prospective teachers to teach foreign language in middle and high schools. Students integrate their content knowledge with the basic teaching methodologies of preparing objectives, effective questioning, curriculum and resource evaluations, teacher presentations, cooperative learning, demonstrations and experiments, student projects, classroom management, lesson and unit planning. Students placed with a high school or middle school foreign language teacher for observations and bit teaching experiences. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 501, 502. Three hours per week.

525. SECONDARY SCHOOL MATHEMATICS METHODS 3 hours credit
Prepares prospective teachers to teach mathematics in middle and high schools. Students integrate their content knowledge with the basic teaching methodologies of preparing objectives, effective questioning, curriculum and resource evaluations, teacher presentations, cooperative learning, demonstrations and experiments, student projects, classroom management, lesson and unit planning. Students placed with a high school or middle school mathematics teacher for observations and bit teaching experiences. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 501, 502. Three hours per week.

526. ENGLISH AND READING IN THE SECONDARY SCHOOL, PART I 3 hours credit
Study of materials and methods for teaching language arts in the high school, with attention to strategies and materials that support reading and writing in content area study. Various models and strategies for teaching the language arts—language, literature and media—at this level are demonstrated and analyzed. Prerequisite: Admission to M.A.T. program. Three hours per week.

527. SCIENCE AND READING IN THE SECONDARY SCHOOL, PART I 3 hours credit
Analysis of secondary school science teaching methods, materials and existing programs. Curricula and materials for the middle school and senior high school levels investigated by the students in biology, chemistry, earth science, physical science and physics. Prerequisite: Admission to M.A.T. program. Three hours per week.

528. ENGLISH AND READING IN THE SECONDARY SCHOOL, PART II 3 hours credit
Study of materials and methods for teaching language arts in the high school, with attention to strategies and materials that support reading and writing in content area study. Various models and strategies for teaching language arts, specifically reading—at this level demonstrated and analyzed. Focus on diverse classroom populations and assessment. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 526. Three hours per week.

529. SCIENCE AND READING IN THE SECONDARY SCHOOL, PART II 3 hours credit
Analysis of secondary school science teaching methods, materials and existing programs. Curricula and materials for the middle school and senior high school levels investigated by the students in biology, chemistry, earth science, general science, physical science and physics. In-depth study of literacy needs of diverse student populations, which includes instructional and assessment strategies in reading and writing. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 527. Three hours per week.

530. SOCIAL STUDIES AND READING METHODS IN THE SECONDARY SCHOOL, PART I 3 hours credit
Analysis of the secondary school program in social studies, with an emphasis on methods of teaching history, geography and citizenship. Current curriculum trends are considered. Emphasis on strategies, skills and instruction in reading. Prerequisite: Admission to M.A.T. program. Three hours per week.

531. FOREIGN LANGUAGE AND READING IN THE SECONDARY SCHOOL, PART I 3 hours credit
The study of the philosophy, aims and methods of foreign language teaching in the middle and secondary school with an emphasis on theories, techniques and materials in current use. Emphasis on strategies, skills and instruction in reading. Prerequisite: Admission to the M.A.T. program. Three hours per week.

532. SOCIAL STUDIES AND READING METHODS IN THE SECONDARY SCHOOL, PART II 3 hours credit
Analysis of the secondary school program in social studies,
with an emphasis on methods of teaching history, geography and citizenship. Current curriculum trends are considered. In-depth study of literacy needs of diverse student populations including instructional and assessment strategies in reading and writing. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 530. Three hours per week.

533. FOREIGN LANGUAGE AND READING IN THE SECONDARY SCHOOL, PART II
3 hours credit
The continued study of philosophy, aims and methods of teaching foreign languages in the middle or secondary school with emphasis on the theories, techniques and materials in current use, Emphasis is on developing a coherent literacy program based on appropriate materials and strategies. For instruction and assessment in reading. Prerequisites: Admission to M.A.T. program and successful completion of EMAT 531. Three hours per week.

500. RESEARCH IN READING EDUCATION
3 hours credit
Introduction to elements of major research methodologies used in the study of education. Application of various methodologies in study of selected topics in reading field; evaluation of selected studies in reading education. Prerequisite: Admission to graduate study. Three hours per week.

515. WRITTEN AND ORAL LANGUAGE DEVELOPMENT
3 hours credit
Current theories of language and literacy development as related to instructional practices, grades K-12. Emphasizes the development of compositional and technical elements of writing as it relates to total language and literacy development. Three hours per week.

516. ELEMENTARY FOUNDATIONS OF READING
3 hours credit
Designed to provide a broad-ranging perspective of contemporary literacy instruction, methods, strategies and practices employed in the elementary classroom. Focus on balanced literacy instruction and best practices, as determined by observation, research and informed decision-making. Intended for all school personnel seeking a contemporary perspective on elementary literacy instruction and to provide a foundation for M.Ed. reading specialist certification candidates. Prerequisite: Admission to graduate study. Three hours per week.

517. SECONDARY FOUNDATIONS OF READING
3 hours credit
Knowledge of the reading process, instructional and assessment strategies, and materials used, drawn from research-based recommendations for reading and writing in secondary content areas. Prerequisite: Admission to graduate study. Three hours per week.

518. DIVERSITY AND LITERACY
3 hours credit
Explores the relationship between mainstream literacy and students who are traditionally marginalized by their diverse learning needs as well as by socioeconomic, political and cultural factors. Investigates local educational reforms for at-risk readers and their families. Three hours per week.

520. LITERATURE FOR CHILDREN AND ADOLESCENTS
3 hours credit
Studies the works, topics and issues in literature written specifically for children and adolescents, with an emphasis on best practices in selecting and using authentic literature in a balanced instructional program. Especially pertinent to reading specialists in its K-12 perspective. For the purposes of this course, literature is defined broadly to encompass print, non-print and media sources of reading materials. Three hours per week.

610. ASSESSMENT OF LITERACY DEVELOPMENT
3 hours credit
Designed for professional personnel seeking experience with assessment instruments and diagnostic techniques. Examines various instruments and strategies for the collection an analysis of data about literacy development. Quantitative and qualitative measures will be examined. Prerequisites: REED 500, 515, 516, 517. Three hours per week.

611. CLINICAL PRACTICUM I
3 hours credit
Designed for professional personnel seeking experience in remedial literacy techniques. Includes the transfer of diagnostic data into teaching strategies and materials for programs of remediation. Prerequisites: REED 518, 610. Three hours per week.

612. CLINICAL PRACTICUM II
3 hours credit
Designed for professional personnel seeking advanced work in clinical assessment and interactive instruction techniques. Includes work with small groups of children who experience difficulty in literacy learning. Promotes professional development as a reading consultant. Prerequisite: REED 611. Three hours per week.

614. LEADERSHIP FOR READING PROFESSIONALS
3 hours credit
Designed for professional personnel seeking certification as reading teachers and reading specialists. Includes organizing and enhancing a reading program, developing curricula, communicating and collaborating with diverse constituencies, providing for the professional development of self and others, and supervising professionals and paraprofessionals. Prerequisite: REED 612. Three hours per week.

620. SEMINAR IN READING EDUCATION
3 hours credit
Participation in professional reading and discussion of selected issues of literacy development and instruction. Demonstration of achievement of competencies of a reading professional through portfolio presentation and professional conference and/or publication preparation. Prerequisite or Corequisite: REED 612. Three hours per week.

339. SECONDARY/K-12 METHODS VISITATION
0 hours credit
Classroom visitations and field experiences for students enrolled in methods courses. Includes observing instruction, teaching lessons and completing assignments as determined by co-instructor(s). Prerequisite: Admission to the Professional Teacher Education Program. Corequisite: One of the following: SCED 371, 372, 373, 374, 376, 422, 429, 471, 472, 473, 474, 476. One half day per week.

367. INCLUSIVE INSTRUCTION FOR SECONDARY TEACHERS
3 hours credit
Acquaints pre-service secondary school teachers with the legal, social and ethical issues that surround inclusion and prepares them with a repertoire of instructional methods associated with inclusive education for students with high incidence disabilities. Field experience required. May not receive credit for both EDUC 467 and SCED 367. Prerequisites: Admission to Professional Teacher Education
Program, EDUC 300. **Pre- or Corequisite:** SCED 371 or 372 or 373 or 374 or 376. ***Three hours per week.***

371. **ENGLISH AND READING METHODS IN SECONDARY SCHOOL, PART I**
3 hours credit
Study of materials and methods for teaching English language arts in the middle and high school, with attention to strategies and materials that support reading and writing in content area study. Various models and strategies for teaching language arts—language, literature and media—are demonstrated and analyzed. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 339. **Pre- or Corequisite:** EDUC 318 or 319. ***Three hours per week.*** (spring semester only)

372. **SOCIAL STUDIES AND READING METHODS IN SECONDARY SCHOOL, PART I**
3 hours credit
Analysis of middle and high school programs in social studies; emphasis on methods of teaching history, geography and citizenship. Current curriculum trends are considered. Course includes emphasis on strategies, skills and instruction in reading. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 339. **Pre- or Corequisite:** EDUC 318 or 319. ***Three hours per week.*** (spring semester only)

373. **MATHEMATICS AND READING METHODS IN SECONDARY SCHOOL, PART I**
3 hours credit
First course of a two-course sequence for analysis of middle and high school programs in mathematics; emphasis on methods of teaching mathematical concepts and understandings. Course includes strategies, skills and instruction in reading in the content area. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 339. **Pre- or Corequisite:** EDUC 318 or 319. ***Three hours per week.*** (spring semester only)

374. **SCIENCE AND READING METHODS IN SECONDARY SCHOOL, PART I**
3 hours credit
Analysis of middle and high school science teaching methods, materials and programs. Emphasis on instruction in biology, chemistry, earth science and physics. In-depth study of literacy needs of diverse student populations including instructional and assessment strategies in reading and writing. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 339. **Pre- or Corequisite:** EDUC 318 or 319. ***Three hours per week.*** (spring semester only)

376. **FOREIGN LANGUAGE AND READING METHODS IN SECONDARY SCHOOL, PART I**
3 hours credit
Study of the philosophy, aims and methods of teaching foreign language in the middle and high school with emphasis on the theories, techniques and materials in current use. Course includes strategies, skills and instruction in reading in the content area. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 339. **Pre- or Corequisite:** EDUC 318 or 319. ***Three hours per week.*** (spring semester only)

422. **TEACHING READING IN THE CONTENT AREAS: PART I**
3 hours credit
Knowledge of the reading process, instructional strategies and materials used is drawn from research-based recommendations for using text in secondary content areas. Intended for all secondary and K-12 teacher education candidates. **Prerequisite:** Admission to Professional Teacher Education Program. ***Three hours per week.***

424. **TEACHING READING IN THE CONTENT AREAS: PART II**
3 hours credit
In-depth study of literacy needs of diverse student populations. Includes instructional and assessment methods in reading and writing. Intended for Secondary and K-12 teacher certification candidates. **Prerequisite:** Admission to Professional Teacher Education Program. ***Three hours per week.***

426. **DIRECTED TEACHING IN THE SECONDARY SCHOOL**
6 hours credit
Teacher candidate is assigned to mentor teacher in a middle or high school for one-half semester. Mentor teacher and University supervisor guide candidate in participating in all activities for which classroom teachers are responsible. **Prerequisite:** Admission to internship. **Corequisites:** SCED 428, 433. **(P/F)**

428. **DIRECTED TEACHING IN THE SECONDARY SCHOOL**
6 hours credit
Teacher candidate is assigned to mentor teacher in a middle or high school for one-half semester. Mentor teacher and University supervisor guide candidate in participating in all activities for which classroom teachers are responsible. **Prerequisite:** Admission to internship. **Corequisites:** SCED 428, 433. **(P/F)**

429. **TEACHING MUSIC AND READING IN THE SECONDARY SCHOOL**
3 hours credit
Techniques for teaching music and reading content in grades 7-12. Emphasis on vocal, instrumental and general music. Comprehensive overview of creative activities utilizing music/reading content II materials and their application to the secondary school curriculum. Offered for undergraduate credit. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 339. ***Three hours per week.***

431. **INTERNSHIP IN MUSIC IN THE SECONDARY SCHOOL**
6 hours credit
Student teaching experience in all aspects of the secondary school music curriculum including the areas of choral, instrumental and general music. Observation, participation, teaching and other activities and duties normally performed by professional teachers done under the direction of public school music teacher(s), with supervision from the University staff. **Prerequisites:** Completion of courses in the music concentration through the third year, ELED 419, SCED 429. **(P/F)**

433. **REFLECTION AND INQUIRY IN TEACHING PRACTICE**
3 hours credit
Forum for discussion of issues pertinent to current practices, trends and issues in the middle, junior and senior high school during the student teaching experience. Emphasis on classroom management. **Prerequisite:** Admission to internship. **Corequisites:** SCED 426, 428. ***Three hours per week.***

447. **ESOL METHODS**
3 hours credit
Introduces students to the study, philosophy, aims and methods of teaching English as a foreign or second language with an emphasis upon the techniques and materials in current use. **Co- or prerequisites:** ENGL 433, 528. **Prerequisites:** ENGL 430, 431 and 439; admission to the professional teacher education program; passing scores on PRAXIS I, II Examinations as defined by the University and Seidel School; GPA of 2.75 in ESOL courses; or permission of the instructor for non-teachers. ***Three hours per week.***
462. ESOL INTERNSHIP I - ELEMENTARY
6 hours credit
A full-time eight-week clinical experience at an elementary school setting providing opportunities to actualize the latest educational research and theory into practice for teaching English Language Learners (ELL), including, but not exclusive to: observation, mini-teaching, macro-teaching, whole group lessons and action research. Conducted under the direct supervision of a mentor teacher (experienced public school teacher) with guidance and support from the University supervisor. Prerequisites: Completion of all required coursework in the B.A. ESOL/K-12 Certification sequence prior to the internship, admission to Professional Teacher Education Program, compliance with student teaching criteria. Corequisites: SCED 463, 465. (P/F)

463. ESOL INTERNSHIP II - SECONDARY
6 hours credit
A full-time eight-week clinical experience at a middle/secondary school setting providing opportunities to actualize the latest educational research and theory into practice for teaching English Language Learners (ELL), including, but not exclusive to: observation, mini-teaching, macro-teaching, whole group lessons and action research. Conducted under the direct supervision of a mentor teacher (experienced public school teacher) with guidance and support from the University supervisor. Prerequisites: Completion of all required coursework in the B.A. ESOL/K-12 Certification sequence prior to the internship, admission to Professional Teacher Education Program, compliance with student teaching criteria. Corequisites: SCED 462, 465. (P/F)

465. ESOL INTERNSHIP - SEMINAR
3 hours credit
Forum for discussing issues and problems pertinent to current ESL practices encountered during the student teaching internship. Colloquium for developing strategies to resolve these problems and address classroom management concerns. Prerequisites: Completion of all coursework in the B.A. ESOL sequence prior to the internship, admission to Professional Teacher Education Program, compliance with student teaching criteria. Corequisites: SCED 462, 463. Three hours per week. (P/F)

471. ENGLISH AND READING METHODS IN THE SECONDARY SCHOOL, PART II
3 hours credit
Continuing study of materials and methods for teaching English language arts in the middle and high school, with attention to strategies and materials that support reading and writing in the content area. Various models and strategies for teaching language arts—language, literature and media—are demonstrated and analyzed. Continuation of SCED 371. Prerequisites: Admission to Professional Teacher Education Program, SCED 371. Corequisite: SCED 339. Three hours per week. (fall semester only)

472. SOCIAL STUDIES AND READING METHODS IN THE SECONDARY SCHOOL, PART II
3 hours credit
Continuing analysis of middle and high school programs in social studies. Emphasis on methods of teaching history, geography and citizenship. Current curriculum trends are considered. In-depth study of literacy needs of diverse student populations including instructional and assessment strategies in reading and writing. Continuation of SCED 372. Prerequisites: Admission to Professional Teacher Education Program, SCED 372. Corequisite: SCED 339. Three hours per week. (fall semester only)

473. MATHEMATICS AND READING METHODS IN THE SECONDARY SCHOOL, PART II
3 hours credit
Continuation of SCED 373, including organization of teaching units, assessment, observation and evaluation of teaching in middle and high school settings. In-depth study of literacy needs of diverse student populations including instructional and assessment strategies in reading and writing in the content area. Prerequisites: Admission to Professional Teacher Education Program, SCED 373. Corequisite: SCED 339. Three hours per week. (fall semester only)

474. SCIENCE AND READING METHODS IN THE SECONDARY SCHOOL, PART II
3 hours credit
Continuing analysis of middle and high school science teaching methods, materials and existing programs. Emphasis on instruction in biology, chemistry, earth science and physics. In-depth study of literacy needs of diverse student populations including instructional and assessment strategies in reading and writing. Continuation of SCED 374. Prerequisites: Admission to Professional Teacher Education Program, SCED 374. Corequisite: SCED 339. Three hours per week. (fall semester only)

476. FOREIGN LANGUAGE AND READING METHODS IN THE SECONDARY SCHOOL, PART II
3 hours credit
Continued study of the philosophy, aims and methods of teaching foreign language in the middle and high school setting with emphasis on the theories, techniques and materials in current use. Emphasis on developing a coherent literacy program based on appropriate materials and strategies for instruction and assessment in reading in the content area. Continuation of SCED 376. Prerequisites: Admission to Professional Teacher Education Program, SCED 376. Corequisite: SCED 339. Three hours per week. (fall semester only)

ENGINEERING (ENGR)

100. INTRODUCTION TO ENGINEERING DESIGN
3 hours credit
Introduction to the art and science of engineering design. Students work in teams to design, manufacture, assemble and test a product. Examples of products include a postal scale, solar cooker and human-powered water pumping systems. CAD and modeling software will also be used. Four hours lecture/activity per week.

101. ENGINEERING GRAPHICS
2 hours credit
Introduces procedures and tools of engineering drawing. Visualizing in three dimensions and expressing ideas graphically are covered. One hour lecture, three hours laboratory per week.

110. STATICS
3 hours credit
The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams and friction. Vector and scalar methods used to solve problems. Prerequisites: MATH 201, PHYS 221. Three hours per week.

221. DYNAMICS
3 hours credit
Systems of heavy particles and rigid bodies at rest and in motion. Force acceleration, work energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space. Prerequisites: MATH 202, ENGR 110. Three hours per week.

482. MICROWAVE ENGINEERING
3 hours credit
Laboratory experiments and theoretical principles will be
seamlessly blended. A modeling software will be used. Topics include transmission lines; Smith Chart; Z, Y, T, S and ABCD matrices; waveguides; antennas; and microwave amplifier design. Prerequisites: PHYS 315 or ENEE 380 and PHYS 311 or ENEE 206. Four hours lecture/activity per week.

ENGLISH (ENGL)

101. COMPOSITION I
3 hours credit
A course in expository writing. Focus on logical thinking and critical reading and writing. Three hours per week. Meets General Education IA (required C or better).

102. COMPOSITION II
3 hours credit
Continued study of expository writing which focuses on the writing of critical papers responding to literature. Prerequisite: C or better in ENGL 101. Three hours per week. Meets General Education IA (required C or better).

220. INTRODUCTION TO FILM
3 hours credit
Introduction to the art of film. Concepts of organization, structure, and editing techniques through viewing and discussing short films. Literary and dramatic influences in feature films. May not receive credit for both ENGL 121 and ENGL 220. Prerequisite: C or better in ENGL 102. Three hours per week.

221. LITERATURE AND FILM
3 hours credit
The relation of film to literature as narrative, dramatic and poetic means of expression; the translation of literary works into film. May not receive credit for both ENGL 322 and ENGL 221. Prerequisite: C or better in ENGL 102. Two hours lecture, two hours screening per week. Meets General Education IA.

240. INTRODUCTION TO THE STUDY OF LANGUAGE
3 hours credit
Study of the ways language works and an introduction to the scientific study of language and linguistics. Presupposes no formal study or knowledge of language. May not receive credit for both ENGL 110 and ENGL 240. Prerequisite: C or better in ENGL 102. Three hours per week.

250. UNDERSTANDING POETRY (GENRE)
3 hours credit
Reading and interpreting a wide variety of poems, examining the features of the poem as a form, variations of the form throughout history. May not receive credit for both ENGL 203 and ENGL 250. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

251. THE ART OF THE DRAMA (GENRE)
3 hours credit
An introduction to the types of drama in the American, British and Continental traditions. May not receive credit for both ENGL 204 and ENGL 251. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

252. ASPECTS OF THE NOVEL (GENRE)
3 hours credit
Analysis of American, British and Continental novels; the form of the novel and its variations. May not receive credit for both ENGL 209 and ENGL 252. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

253. THE SHORT STORY (GENRE)
3 hours credit
A study of the historical development of the short story, its forms, characteristics and its most successful practitioners. May not receive credit for both ENGL 210 and ENGL 253. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

254. SATIRE (GENRE)
3 hours credit
The nature of satire and its historical forms. May not receive credit for both ENGL 212 and ENGL 254. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

300. STUDIES IN ENGLISH
3 hours credit
Study of a literary figure, period, genre, movement or theme. May be repeated under different subtitles. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

301. STUDIES IN ENGLISH
3 hours credit
Study of a topic in language, film or writing. May be repeated under different subtitles. Prerequisite: C or better in ENGL 102. Three hours per week.

302. INTERNSHIP IN ENGLISH I
1-3 hours credit
Provides students practical experience in using English course skills through work in a business, public service agency or professional office. A maximum of three credits may be applied to English major. May be taken for a maximum of three hours credit. May not receive credit for both ENGL 339 and ENGL 302. Prerequisites: ENGL 101, 102, junior standing English major or minor with minimum 3.0 cumulative GPA; written permission of department chair.

303. INTERNSHIP IN ENGLISH II
1-3 hours credit
Provides students practical experience in using English course skills through work in a business, public service agency or professional office different from that used for ENGL 302: Internship in English I. May be taken for a maximum of three hours of elective credit toward degree requirements and not major requirements. Prerequisites: ENGL 101, 102, 302; junior standing English major or minor with minimum 3.0 cumulative GPA; written permission of department chair.

304. BUSINESS AND PROFESSIONAL WRITING
3 hours credit
Study of business and professional documents emphasizing a rhetorical approach to analyzing issues germane to the message. Stresses effectiveness and correctness of writing, including memos, letters, resumes, proposals, press releases, abstracts, reports and evaluations. May not receive credit for both ENGL 372 and ENGL 304. Prerequisite: C or better in ENGL 102. Three hours per week.

305. TECHNICAL WRITING AND EDITING
3 hours credit
Effective writing and editing technique applied to, among others, formal proposals, mechanical descriptions, user manuals, investigative reports, field reports, feasibility reports and articles for publication. May not receive credit for both ENGL 373 and ENGL 305. Prerequisite: C or better in ENGL 102. Three hours per week.
306. WRITING FOR THE DISCIPLINES
3 hours credit
Helps students improve their writing to meet career demands of particular majors. Students examine styles and forms of writing and evaluate options and requirements for particular writing tasks. Not acceptable for General Education credit. May not receive credit for both ENGL 353 and ENGL 306. Prerequisite: C or better in ENGL 102. Three hours per week.

307. WRITING FOR THE WORLD WIDE WEB
3 hours credit
Focuses on writing content for Web sites. Students learn how to plan, write, design and evaluate Web pages and Web sites. Prerequisite: C or better in ENGL 102. Three hours per week.

308. COMPOSITION III
3 hours credit
Focuses on the practice and theory of writing, advanced strategies of writing, and the forms and aims of discourse. Emphasis on effective assignments, evaluation of prose, and the nature and analysis of style. May not receive credit for both ENGL 201 and ENGL 308. Prerequisite: C or better in ENGL 102. Three hours per week.

315. SENSUALITY IN FRENCH LITERATURE FROM 1000 TO 1700
3 hours credit
The theme of sensuality in major French works from the Middle Ages to the Enlightenment: medieval conflict, humanistic synthesis, classic rigidity. (“Song of Roland,” Lays of Marie de France, Essays-Montaigne, Gargantua-Rabelais, Racine, Corneille, Moliere.) Taught in English. Cross listed with FREN 350. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

316. FRENCH LITERATURE OF PROTEST IN TRANSLATION (1700-1970)
3 hours credit
Study of the emergence of France as a nation through the revolutionary literature of 1789, the intense emotionalism of the romantics, the realist observations and the existential absurd of France today. Taught in English. Cross listed with FREN 351. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

317. GERMAN SHORT STORIES
3 hours credit
Survey of the German short story (Deutsche Novelle) from its inception in the 18th century to the present. Taught in English. Cross listed with GERM 350. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

318. TOPICS IN HISPANIC LITERATURE IN TRANSLATION
3 hours credit
Reading, analysis and discussion of some of the classic works of Spanish and Latin American literature. Taught in English. Does not count toward the Spanish minor. May be taken only once for credit toward the Spanish major. Cross listed with SPAN 330. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

335. GOTHIC FICTION
3 hours credit
A study of the Gothic strain in English and American fiction from the late 18th through the 20th centuries—its genesis, initial manifestations, popular mutations and periodic reinvigoration. Among authors studied are Horace Walpole, Ann Radcliffe, “Monk” Lewis, Poe, James, Bram Stoker and Stephen King. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

338. GAY AND LESBIAN LITERARY STUDIES
3 hours credit
Study of gay male and lesbian writings of the past and present in their cultural and historical contexts. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

341. THE BIBLE AS LITERATURE
3 hours credit
The literature of the Bible: various forms, stylistic features and relation to culture. Emphasis on the Old Testament, King James version. May not receive credit for both ENGL 313 and ENGL 341. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

342. WOMEN IN LITERATURE
3 hours credit
A study in literature written by American and British women, primarily during the 19th and 20th centuries. Among writers studied are Bronte, Eliot, Chopin, Wharton, Woolf, Plath, Walker. May not receive credit for both ENGL 309 and ENGL 342. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

344. LITERATURE OF A DECADE
3 hours credit
In-depth study of literary works of a particular decade with special emphasis on cultural and historical context. (Decade and texts selected by instructor.) May be repeated under different subtitles. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

345. SCIENCE FICTION
3 hours credit
A survey of the types and conventions of science fiction and a consideration of its persistent themes, especially the idea of utopia and dystopia. Readings include traditional works by such authors as Swift, Bellamy, Wells, Huxley and Orwell as well as popular fiction by such recent authors as Stapledon, Clarke, Bradbury, Vonnegut and LeGuin. May not receive credit for both ENGL 327 and ENGL 345. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

347. THE WILDERNESS IN LITERATURE
3 hours credit
A study of evolving ideas of wilderness in journals and other non-fiction, along with readings in fiction and poetry which dramatize civilized humanity’s relationships with wilderness. Nineteenth and 20th century American authors including Thoreau, John Muir, Fenimore Cooper, Edward Abbey, Jack London, Faulkner, James Dickey and Gary Snyder. May not receive credit for both ENGL 327 and ENGL 347. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

348. NATURE IN LITERATURE
3 hours credit
Study of attitudes toward Earth’s various environments in British and American nature writing, especially of the 19th and 20th centuries. Includes essays by authors such as Gilbert White, John Burroughs, Aldo Leopold, Loren Eislely, Rachel Carson, Richard Nelson and Annie Dillard. May not receive credit for both ENGL 336 and ENGL 347. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

349. NORSE LITERATURE IN TRANSLATION
3 hours credit
Survey of northern European literature from the pagan era through the Middle Ages, including Germanic myths and Icelandic sagas. Supporting materials from archaeology, folklore and popular culture. May not receive credit for both ENGL 360 and ENGL 349. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.
351. CREATIVE WRITING
3 hours credit
Techniques of writing fiction and poetry through reading, analysis, and directed writing. Students submit work-in-progress for class discussion and a portfolio of poems or stories. May not receive credit for both ENGL 230 and ENGL 351. Prerequisite: C or better in ENGL 102. Three hours per week.

355. ARTHURIAN LITERATURE
3 hours credit
Survey of medieval and modern treatments of the legends of King Arthur. Celtic, English and Continental sources. Supporting materials from archaeology, folklore, mythology, fine arts, popular culture. May not receive credit for both ENGL 362 and ENGL 355. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

356. BRITISH LITERATURE I: BEGINNINGS TO 1800
3 hours credit
Survey of British literature from Beowulf poet to poetry of sensibility. Readings include but not limited to: The Canterbury Tales; Shakespeare’s dramas, Paradise Lost, and major works by Swift, Pope and Johnson. May not receive credit for both ENGL 242 and ENGL 356. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

357. BRITISH LITERATURE II: 1800-1900
3 hours credit
Survey of British literature from William Blake and the Romantic Period to 1900. Readings include but not limited to: Wordsworth, Coleridge, Shelley, Keats, Tennyson, Browning, the Rossetti and Wilde. Poetry and fiction included. May not receive credit for both ENGL 243 and ENGL 357. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

358. BRITISH LITERATURE III: 1900 TO PRESENT
3 hours credit
Survey of major British authors from 1900 to present. Readings include but not limited to the poetry of Yeats, T.S. Eliot, Auden, Dylan Thomas, Larkin, Heaney and Ted Hughes; the plays of Caryl Churchill and Samuel Beckett; the fiction of Forster, Joyce, Lawrence, Ishiguro, Swift, Winterson, Brookner and McEwan. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

363. WORLD LITERATURE I
3 hours credit
A study of major western and non-western cultural heritages from antiquity through the Renaissance Europe and ends with the exploration/conquest literature of the “early” Americas. This course gives you a foundation in the classics of western literature and introduces you to the classical traditions of Native American peoples, India, China and the Middle East. May not receive credit for both ENGL 207 and ENGL 363. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

364. WORLD LITERATURE II
3 hours credit
A study of western and non-western cultural heritages from the 17th century to contemporary works. The texts will cover various literary periods from neoclassicism and romanticism to modernism and post-modernism. The course provides a foundation in the classics of modern western literature and introduces modern non-western literature. May not receive credit for both ENGL 208 and ENGL 364. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

365. LITERATURE OF THE THIRD WORLD
3 hours credit
Study of Third World literature and ways it resembles and differs from Western literature in matters of theme, style or content. May include authors such as Fuentes, Garcia Marquez, Paton, Head, Achebe, Thiong’o, Hulme. May not receive credit for both ENGL 448 and ENGL 365. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

366. WORLD MYTHOLOGY
3 hours credit
Primitive, oriental and Occidental mythology, emphasis on classical, Nordic and Judeo-Christian myths. Application of principles of myth and folklore criticism to Western literature, ancient through modern. Not open to students who have taken ENGL 326. May not receive credit for both ENGL 222 and ENGL 366. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

367. FOLKLORE AND FOLKLIFE
3 hours credit
Introduction to varieties of folk performance, especially verbal and literary, with attention to significance of folk groups. Methods of folklore collection, analysis, presentation and archiving. May not receive credit for both ENGL 223 and ENGL 367. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

368. PHILOSOPHICAL CONCEPTS IN LITERATURE
3 hours credit
An examination of a philosophical theme, such as existentialism or tragedy, as reflected in literature. Can be repeated for credit with different themes. May not receive credit for both ENGL 450 and ENGL 368. Prerequisites: C or better in ENGL 102 and a philosophy course, or permission of instructor. Three hours per week. Meets General Education IA.

380. AMERICAN LITERATURE I: BEGINNINGS TO 1860
3 hours credit
Study of major American literature, exclusive of the novel, from the beginnings to 1860. Among writers studied are Edwards, Franklin, Hawthorne, Irving, Melville, Poe and Whitman. May not receive credit for both ENGL 331 and ENGL 380. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

381. AMERICAN LITERATURE II: 1860-1945
3 hours credit
Study of major American literature, exclusive of the novel, from the Civil War to the end of World War II (1860-1945). Among writers studied are Chopin, Crane, Dickinson, Faulkner, Gilman, Hughes, James, Jewett, Twain, Whitman and Wright. May not receive credit for both ENGL 332 and ENGL 381. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

382. AMERICAN LITERATURE III: 1945 TO PRESENT
3 hours credit
A survey of major American writers from 1945 to the present, exclusive of the novel, in order to trace the growth in this country of an indigenous literature. Often, several works by each author will be examined. Authors may include Barth, Bellow, Bishop, Carver, Clifton, Dove, Ginsberg, Lowell, Mailer, Morrison, Oates, Roth, Updike. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

383. AFRICAN-AMERICAN LITERATURE
3 hours credit
May not receive credit for both ENGL 307 and ENGL 383. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**384. NATIVE AMERICAN LITERATURE**

3 hours credit

Study of the literature that grew out of the unique perceptions and experiences of the Native Americans with particular emphasis on poetry, short stories and novels. Authors include Erdrich, Silko, Momaday, Black Elk, Welch and Ortiz. May not receive credit for both ENGL 328 and ENGL 384. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**385. ETHNIC LITERATURE IN AMERICA**

3 hours credit

Explores literature of America’s ethnic cultures and their historical and literary contexts. Emphasizes but not limited to literature of African-, Asian-, Jewish-, Mexican- and Native-Americans. May not receive credit for both ENGL 449 and ENGL 385. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**386. AMERICAN WOMEN WRITERS OF COLOR**

3 hours credit

Study of Native American, African-American, U.S., Latina and Asian American women’s writing, emphasizing 19th and 20th century issues which influenced their writing. May not receive credit for both ENGL 346 and ENGL 386. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**387. LITERATURE OF THE AMERICAN WEST: 1820-PRESENT**

3 hours credit

A study of journals and travel narratives and popular, regional and historical novels of the American West. Works of writers such as Cooper, Twain, Steinbeck, Anaya, Cather and Silko. May not receive credit for both ENGL 329 and ENGL 387. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**388. AMERICAN DRAMA**

3 hours credit

Historical survey of American drama from its beginnings to the present. Includes works by major American dramatists, such as Hellman, O’Neill, Williams, Miller and Henley. May not receive credit for both ENGL 350 and ENGL 388. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**389. TOPICS IN NATIVE AMERICAN LITERATURE**

3 hours credit

Study of select topics in Native American literature. Such topics may include a specific period, region, native group, set of authors, theme or issue. May be taken twice under different subtitles. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**390. INTERNATIONAL STUDIES IN LITERATURE**

3 hours credit

On-site study of the literature, drama, theatre, and culture of selected countries. Field study preceded by pre-tour lectures. May be taken twice for credit under different subtitles. The objective of the course is to better understand the culture and the history of a foreign country through experimental learning and intelligent mentoring. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**401. STUDIES IN FILM**

3 hours credit

Study of a director, period, genre, movement or theme in the area of film. May be repeated twice under different subtitles. May not receive credit for both ENGL 325 and ENGL 401. **Prerequisite:** C or better in ENGL 102. **Three hours per week.**

**402. FILM HISTORY**

3 hours credit

The history of motion pictures with a focus on technical and artistic trends and the work of important artists and directors. May not receive credit for both ENGL 321 and ENGL 402. **Prerequisite:** C or better in ENGL 102. **Three hours per week.**

**403. FILM GENRE**

3 hours credit

An introduction to the concept of film genre and to the study of specific film genres including comedies, musicals, westerns, gangster films, horror films and science fiction films. May not receive credit for both ENGL 324 and ENGL 403. **Prerequisite:** C or better in ENGL 102. **Three hours per week.**

**404. INTERNATIONAL CINEMA**

3 hours credit

Study of a wide range of films made around the world, with special emphasis on historical development of selected national cinemas, cultural and economic determinants that affect the production of film and the contrasting conventions of film style in contrasting contexts of production. **Prerequisite:** C or better in ENGL 102. **Three hours per week.**

**405. MAJOR FILM DIRECTORS**

3 hours credit

Intensive study of individual American and foreign auteur directors, singly or in groups. Focus on those artists who write their own screenplays and direct their own films. May be repeated twice if different directors are studied. **Prerequisite:** C or better in ENGL 102. **Three hours per week.**

**408. FILM THEORY**

3 hours credit

Introduction to influential theoretical approaches to film such as psychoanalysis, auteurism, feminism, reception and spectatorship theories, genre studies, queer theory and post-Colonial criticism. Includes a range of screenings and encourages students to read films in terms of various cultural, ideological and personal perspectives. **Prerequisite:** ENGL 220 or 322. **Three hours per week.**

**410. INDIVIDUAL AUTHORS**

3 hours credit

An intensive study of one to three writers of major stature (choice to be made by the instructor). May not receive credit for both ENGL 343 and ENGL 410. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**411. CHAUCER**

3 hours credit

Chaucer’s major works with emphasis on *The Canterbury Tales*. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**412. MILTON**

3 hours credit

The sonnets, companion poems, essays and drama. Emphasis on *Paradise Lost*. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**

**413. SHAKESPEARE**

3 hours credit

A study of the major comedies and histories with an emphasis on the tragedies. May not receive credit for both ENGL 419 and ENGL 413. **Prerequisite:** C or better in ENGL 102. **Three hours per week. Meets General Education IA.**
415. FICTION WORKSHOP
3 hours credit
Students analyze in a workshop setting readings in contemporary fiction to observe techniques in craftsmanship and present their own fiction for intensive examination by workshop participants. May be taken twice for credit. May not receive credit for both ENGL 415 and ENGL 311. Prerequisite: ENGL 351 or permission of instructor. Three hours per week.

416. POETRY WORKSHOP
3 hours credit
Students analyze in a workshop setting readings in contemporary poetry to observe techniques in craftsmanship and present their own poetry for intensive examination by workshop participants. May not receive credit for both ENGL 416 and ENGL 312. May be taken twice for credit. Prerequisite: ENGL 351 or permission of instructor. Three hours per week.

417. WRITER'S CRAFT
3 hours credit
In-depth study of the creative writing process. Students develop a craft workbook that focuses on contemporary forms and strategies. Students write by assignment and develop techniques of reviewing in order to compare and contrast certain authors' aesthetics with their own creative writings. May be taken twice for credit. May not receive credit for both ENGL 417 and ENGL 314 and/or ENGL 340. Prerequisite: ENGL 351 or permission of instructor. Three hours per week.

428. ESOL TESTS AND MEASUREMENTS
3 hours credit
Focuses on present-day language theory and practice. Objectives are not only to increase students' skills in writing classroom language tests and assessing standardized instruments intended for second language learners, but also to improve their ability to evaluate language research in which testing plays a part. Prerequisite: ENGL 240 or 430 or permission from instructor. Three hours per week.

430. PRINCIPLES OF LINGUISTICS
3 hours credit
Detailed study of the primary linguistic systems, including phonology, morphology, semantics, syntax and pragmatics. Introduces important sociolinguistic research concerns. As the course is designed for teachers in training, students apply those linguistic concepts to practical language learning problems. Prerequisite: C or better in ENGL 102. Three hours per week.

431. SURVEY OF MODERN ENGLISH GRAMMAR
3 hours credit
Study of modern English grammar accomplished through a variety of language analysis approaches, including traditional, structural and transformational. Prerequisite: ENGL 240 or 430 or permission of instructor. Three hours per week.

432. LITERACY AND ESOL READING
3 hours credit
Introduces students interested in questions of language acquisition to the theories and practices of learning to read in a second language or second dialect. Topics include writing theory, writing strategies, evaluating writing, and writers and rhetorical concerns. Students develop a literacy project, writing materials for specific ESOL students. May not receive credit for both ENGL 443 and ENGL 434. Prerequisite: ENGL 430 or permission of instructor. Three hours per week.

433. LANGUAGE AND CULTURE
3 hours credit
Linguistics approach to the peculiar relationship between a language and the cultural total of which the language is a part. Examines language variations within a community according to gender, age, geography, ethnicity, socioeconomic class and level of education. Considers the educational, political and economic implications. Prerequisite: C or better in ENGL 102. Three hours per week.

434. LITERACY AND ESOL WRITING
3 hours credit
Introduces students interested in questions of language acquisition to the theories and practices of learning to write in a second language or second dialect. Topics include writing theory, writing strategies, evaluating writing, and writers and rhetorical concerns. Students develop a literacy project, writing materials for specific ESOL students. May not receive credit for both ENGL 443 and ENGL 434. Prerequisite: ENGL 430 or permission of instructor. Three hours per week.

438. BILINGUALISM
3 hours credit
Study of what it means to be a bilingual child or adult. Explores the mind's role in bilingualism and in language acquisition. Surveys educational systems' response to language variance among students and explores the social, academic and language learning consequences of growing up bilingual in the U.S.A. Prerequisite: ENGL 430 or permission of instructor. Three hours per week.

439. SECOND LANGUAGE ACQUISITION
3 hours credit
Introduction to second language acquisition (SLA) theory and the application of SLA theory to second/foreign language teaching practices. Explores what it means to know a language and, hence, how one learns a second language. Prerequisites: ENGL 110, 430 or permission of instructor. Three hours per week.

447. CURRENT APPROACHES IN ESOL INSTRUCTION
3 hours credit
Familiarizes students with the foundations of teaching English to speakers of other languages (ESOL). It provides for examination of current theory and empirical data on language learning and teaching. Participants will examine pedagogical implications/applications of teaching methodologies intended for non-native speakers of English by examining the latest research data. This course seeks to meet the needs of practicing or prospective teachers enrolled in an undergraduate program. This is an introductory course. Three hours per week.

453. MODERN POETRY
3 hours credit
A study of British and American poetry from Yeats through World War II. Poets include Hopkins, Yeats, Eliot, Pound, Frost, Williams, Robinson, Crane, Stevens, Auden and Dylan Thomas. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

455. NON-FICTION WORKSHOP
3 hours credit
Students analyze in a workshop setting readings in contemporary nonfiction to observe techniques in craftsmanship and present their own nonfiction for intensive examination by workshop participants. May be taken twice for credit. Prerequisite: C or better in ENGL 102. Three hours per week.

461. FEMINIST LITERATURE AND THEORY
3 hours credit
A survey of the growth and transformation of feminist literature and theory from the birth of the woman's movement in the nineteenth century to contemporary cultural feminist writings. We will also investigate modern and contemporary images and representations of women in literature, film and popular culture from a critical perspective that celebrates cul-
tural diversity and alternative viewpoints. **Prerequisites:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

463. LITERARY ANALYSIS
3 hours credit
Analytical approaches to literature designed to teach teachers and prospective teachers traditional, formal, psychological, mythological and expository analyses of narrative fiction, drama and poetry applied to the various genres. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

464. RHETORICAL CRITICISM
3 hours credit
Introduces critical methods for analyzing persuasive messages in a variety of genres and contexts. **Prerequisite:** C or better in ENGL 102. Three hours per week.

465. RESEARCH IN COMPOSITION
3 hours credit
Explores current theories and research on writing process and product. Topics include: definitions of writing; rhetorical contexts; heuristics for pre-writing, writing and rewriting; questions of arrangement, style, grammar, mechanics and assessment. **Prerequisite:** C or better in ENGL 102. Three hours per week.

466. CURRENT PROBLEMS IN COMPOSITION RESEARCH
3 hours credit
Applies theoretical concepts from ENGL 465 to current issues in composition and rhetoric research (such as basic writing, methods of responding to student writing and audience adaptation). Emphasizes modes of research for continuing investigation of these issues. **Prerequisite:** ENGL 465 or approval of the instructor. Three hours per week.

467. HISTORY AND THEORY OF RHETORIC
3 hours credit
Study of how changing views of rhetoric affect public attitudes toward writing and influence writing instruction in schools and universities. Emphasizes shifting views toward style, argument and the relationship between persuasion and knowledge. May not receive credit for both ENGL 470 and ENGL 467. **Prerequisite:** C or better in ENGL 102. Three hours per week.

468. SEMINAR IN LITERARY RESEARCH
3 hours credit
Introduces students to research methods in the study of literature and language. Guides students in the preparation of a scholarly research project. Not for graduate credit. **Prerequisites:** C or better in ENGL 102 and 12 hours of literature credits at the 300-400 level or instructor’s permission. Three hours per week.

471. MEDIEVAL ENGLISH LITERATURE
3 hours credit
A survey of literature produced in and around the British Isles between the 8th and 15th centuries of the Common Era. Anglo-Saxon and other early medieval selections presented in translation although the course includes instruction in rudimentary Old English. Middle English works (excluding Chaucer) presented in the original. Primary texts historicized and contextualized through secondary readings in history, ethnography, the arts, criticism. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

472. ELIZABETHAN AND JACOBEAN LITERATURE
3 hours credit
A study of major British literature, exclusive of Shakespeare, from 1500-1660. Authors include Sidney, Spenser, Donne and Milton. May not receive credit for both ENGL 414 and ENGL 472. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

473. RESTORATION AND 18TH CENTURY LITERATURE
3 hours credit
A study of British literature from 1660 through the 18th century. Writers studied include Behn, Rochester, Dryden, Defoe, Swift, Pope, Johnson, Boswell, Goldsmith, Burns and Blake. May not receive credit for both ENGL 420 and ENGL 473. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

474. ROMANTIC LITERATURE
3 hours credit
Study of British poetry and aesthetics from the French Revolution through the first third of the 19th century. Primary readings from Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. May not receive credits for both ENGL 421 and ENGL 474. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

475. VICTORIAN LITERATURE
3 hours credit
A study of major British literature during the reign of Queen Victoria. Writers studied may include Tennyson, Browning, Arnold, Carlyle, Newman and Ruskin. May not receive credit for both ENGL 425 and ENGL 475. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

476. BRITISH NOVEL I: BEGINNINGS TO 1800
3 hours credit
A study of the British novel through the 18th century. Novelists studied include Defoe, Richardson, Fielding, Sterne, Smollett and Austen. May not receive credit for both ENGL 460 and ENGL 476. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

477. BRITISH NOVEL II: 1800-1945
3 hours credit
A study of the British novel of the 19th and 20th centuries, with works chosen from the writings of Austen, Dickens, Thackeray, Trollope, Hardy, Conrad, D.H. Lawrence and Virginia Woolf. May not receive credit for both ENGL 462 and ENGL 477. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

478. BRITISH NOVEL III: 1945 TO THE PRESENT
3 hours credit
A study of the British novel of the second half of the 20th century, with works chosen from Orwell, Golding, Amis, Murdoch, Spark, Byatt, Rushdie, McEwan, Barnes, Carter, Graham Swift and others. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

479. CONTEMPORARY TRENDS IN BRITISH LITERATURE
3 hours credit
Contemporary trends in British literature from 1970 to the present. Writers may include Penelope Fitzgerald, Anita Brookner, A. S. Byatt, Seamus Heaney, Geoffrey Hill, Tom Stoppard, William Trevor, Martin Amis, Graham Swift, Ian McEwan and Brian Friel. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

480. COLONIAL AMERICAN LITERATURE
3 hours credit
A study of American literature prior to 1820. Writers studied may include Bradford, Bradstreet, Taylor, Edwards, Franklin, Irving and Cooper. May not receive credit for both ENGL 428 and ENGL 480. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.
481. THE AMERICAN RENAISSANCE
3 hours credit
A study of the Transcendental Movement and literature between 1830 and 1870. Emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, Whitman and Dickinson. May not receive credit for both ENGL 427 and ENGL 481. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

483. AMERICAN SOUTHERN RENAISSANCE: 1930-1970
3 hours credit
A study of fiction produced in the South between 1930 and 1970. Writers may include Glasgow, Faulkner, O'Connor, Welty, Porter, Warren, Percy, Capote, Taylor, Grau, Styron and Young. May not receive credit for both ENGL 428 and ENGL 483. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

484. AMERICAN NOVEL I: BEGINNINGS TO 1900
3 hours credit
A study of major American novels through 1900. Writers studied may include Crane, Hawthorne, Melville and Twain. May not receive credit for both ENGL 457 and ENGL 484. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

485. AMERICAN NOVEL II: 1900-1945
3 hours credit
A study of major American novels between 1900 and World War II. Writers studied may include Cather, Faulkner, Fitzgerald, Hemingway, Hurston, James, Lewis and Wharton. May not receive credit for both ENGL 458 and ENGL 485. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

486. AMERICAN NOVEL III: 1945-PRESENT
3 hours credit
A study of major American novels since World War II. Writers may include Pynchon, Roth, Morrison, McCarthy, Mukherjee, DeLillo, Kerouac, Nabokov. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

488. CONTEMPORARY TRENDS IN AMERICAN LITERATURE
3 hours credit
Contemporary trends in U.S. literature from 1970 to the present. Writers may include McCarthy, DeLillo, Shepard, Tyler, Vonnegut, C. Johnson, Albee, Kincaid, Morrison, Walker, Silko. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

490. TOPICS IN ENGLISH: LITERATURE 1-3 hours credit
Intensive study of a literary genre, figure or period. May be repeated for credit in different areas of study. Prerequisite: C or better in ENGL 102 or permission of instructor. Meets General Education IA.

491. TOPICS IN LINGUISTICS AND LANGUAGE LEARNING
3 hours credit
An examination of selected topics of linguistics as they relate directly to first and second language learning. The course may focus in different semesters on such topics as phonology and language learning, syntactic theory and language learning, or discourse and language learning. This course may be repeated once under different course subtitles. Prerequisite: ENGL 430. Three hours per week.

492. PRACTICUM IN ENGLISH
1-3 hours credit
Under the close supervision of a master teacher, an advanced student in an English option intern as a teaching assistant in a lower-division course in that option. May not receive credit for both ENGL 442 and ENGL 492. Prerequisites: Nine hours of coursework in that option and approval of department chair. Variable hours per week.

493. INDEPENDENT STUDY
3 hours credit
Tutorial course in any area of English. Open to junior and senior English majors with superior English grades. Prerequisite: Permission of the department chair prior to registration. One conference weekly. May be taken twice. Not for graduate credit. Previously listed as ENGL 400.

494. TOPICS IN ENGLISH: WRITING OR FILM
1-3 hours credit
Intensive study in language or film. May be repeated for credit in different areas of study. Prerequisite: C or better in ENGL 102 or permission of instructor.

495. TOPICS IN WRITING AND RHETORIC
3 hours credit
Intensive study of selected topics in writing and rhetoric. May be repeated in different areas of study for a maximum of six hours of credit. Prerequisite: C or better in ENGL 306 or 308.

497. UNDERGRADUATE RESEARCH
1-3 hours credit
Designed to encourage students to pursue an important area of research under the supervision of an English faculty member. Students will have the opportunity to study a topic in depth and design their own research project to contribute to that area's body of knowledge. Specific topics are indicated on student transcripts. Public presentation required. May be taken for a maximum of three credits. Prerequisites: C or better in ENGL 102, permission of instructor and department chair.

499. ENGLISH HONORS
3 hours credit
Independent study in an area of English leading to an honors thesis. Prerequisite: invitation by the Department of English.

500. SEMINAR IN AMERICAN LITERATURE THROUGH THE 19TH CENTURY
3 hours credit
A study of selected topics in American literature through the 19th century. Emphasizes one or more authors, genres or literary themes. May be repeated under different course subtitles. Three hours per week.

501. SEMINAR IN AMERICAN LITERATURE OF THE 20TH CENTURY
3 hours credit
A study of selected topics in American literature of the 20th century (up to 1945). Emphasizes one or more authors, genres or literary themes. May be repeated under different course subtitles. Three hours per week.

502. SEMINAR IN ENGLISH LITERATURE I
3 hours credit
A study of selected topics in English literature from the beginnings to 1660. Emphasizes one or more authors, genres or literary themes. May be repeated under different course subtitles. Three hours per week.

503. SEMINAR IN ENGLISH LITERATURE II
3 hours credit
A study of selected topics in English literature of the Restoration and 18th century. Emphasizes one or more major authors, genres or literary themes. May be repeated under different course subtitles. Three hours per week.

504. SEMINAR IN ENGLISH LITERATURE III
3 hours credit
A study in selected topics of English literature of the 19th cen-
tury. Emphasizes one or more major authors, genres or literary themes. May be repeated under different course subtitles. 
Three hours per week.

505. SEMINAR IN ENGLISH LITERATURE IV 
3 hours credit 
A study of selected topics in English literature of the 20th century. Emphasizes one or more major authors, genres or literary themes. May be repeated under different course subtitles. 
Three hours per week.

507. STUDIES IN FILM 
3 hours credit 
Study of a director, period, genre, movement or theme in the area of film. May be repeated twice under different subtitles. 
Three hours per week.

509. SEMINAR IN LANGUAGE STUDY 
3 hours credit 
A study in selected topics in language and linguistics. The course focuses in different semesters on such topics as the new English, descriptive or historical linguistics, morphology-syntact., or phonetics and phonemics, teaching standard English to speakers of other languages or to speakers of other dialects. May be repeated under different course subtitles. Prerequisite: Permission of instructor. Three hours per week.

510. SEMINAR IN LITERATURE: SPECIAL TOPICS 
3 hours credit 
Examines topics in English and American literature which cross traditional, chronological, national or ontological boundaries. May be repeated under different course subtitles. Three hours per week.

511. CHAUCER 
3 hours credit 
Chaucer’s major works with emphasis on The Canterbury Tales. Three hours per week.

512. MILTON 
3 hours credit 
The sonnets, companion poems, essays and drama. Emphasis on Paradise Lost. Three hours per week.

513. SHAKESPEARE 
3 hours credit 
A study of the major comedies and histories with an emphasis on the tragedies. Three hours per week.

514. WRITING PROGRAM ISSUES 
3 hours credit 
Explores successful writing programs, particularly at the college level, and their connections to research/theory in composition. Requires students to evaluate and propose guidelines for composition study and instruction. Three hours per week.

515. EASTERN SHORE WRITING PROJECT SUMMER INSTITUTE 
6 hours credit 
Explores current theories about the composing process and their implications for teaching writing and using writing to teach other content areas. Focuses on adapting and evaluating classroom activities for different grade levels and educational settings. Cross-listed with EDUC 515. Prerequisite: Permission of the instructor.

516. FILM HISTORY 
3 hours credit 
The history of motion pictures with a focus on technical and artistic trends and the work of important artists and directors. Three hours per week.

517. FILM GENRE 
3 hours credit 
An introduction to the concept of film genre and to the study of specific film genres including comedies, musicals, westerns, gangster films, horror films and science fiction films. Three hours per week.

518. MAJOR FILM DIRECTORS 
3 hours credit 
Intensive study of individual American and foreign auteur directors, singly or in groups. Focus on those artists who write their own screenplays and direct their own films. May be repeated twice if different directors are studied. Three hours per week.

522. INDIVIDUAL AUTHORS 
3 hours credit 
An intensive study of one to three writers of major stature (choice to be made by the instructor). Three hours per week.

528. ESOL TESTS AND MEASUREMENTS 
3 hours credit 
Introduces students to present-day language theory and practice. Objectives are not only to increase students' skills in writing classroom language tests and assessing standardized instruments, but also to improve their ability to evaluate language research in which testing plays a part. Prerequisite: ENGL 430/536 or permission of instructor. Three hours per week.

530. DIRECTED RESEARCH 
3 hours credit 
Preparation of optional research project in master's degree program under department supervision.

531. THESIS 
3 hours credit

532. LITERACY AND ESOL READING 
3 hours credit 
Introduces students interested in questions of language acquisition to the theories and practices relating to learning to read in a second language or second dialect. Topics include models for acquiring foreign language reading skills, teaching strategies for second language/dialect literacy, evaluating literacy skills, investigating current research about acquisition of literacy skills, and exploring political and social implications of second/language/dialect literacy. Prerequisite: ENGL 240 or 430/536 or permission of instructor. Three hours per week.

533. ESOL PROGRAM DEVELOPMENT 
3 hours credit 
Introduces students to the theory, practice and special needs in developing and implementing an ESOL curriculum in a public, private or business enterprise for language learners K-adult. Allows students to explore the complexities involved in planning and developing a language curriculum; sensitize themselves to the cultural conflicts and biases, both sociolinguistic and linguistic, which are faced by limited English-proficient students; and to prepare for the actual writing and implementing of an ESOL curriculum where needed. Prerequisite: ENGL 430/536 or permission of instructor. Three hours per week.

534. LITERACY AND ESOL WRITING 
3 hours credit 
Introduces students interested in questions of language acquisition to the theories and practices of learning to write in a second language or second dialect. Topics include writing theory, writing strategies, and second language writers and rhetorical concerns. In addition, students will examine teaching methodologies for second language/dialect literacy, evaluating literacy skills, current research about acquisition of literacy skills, and political and social implications of second
language/dialect literacy. **Prerequisite:** ENGL 240 or 430/536 or permission of instructor. **Three hours per week.**

535. LANGUAGE AND CULTURE
3 hours credit
Emphasizes a linguistic approach to the peculiar relationship between a language and the cultural total of which the language is a part. It examines language variations within a community according to gender, age, geography, ethnicity, socioeconomic class and education, while considering the educational, political and economic implications. Specifically, this course should be considered an exploration of the study of language in its social setting. **Prerequisite:** Permission of the instructor. **Three hours per week.**

536. PRINCIPLES OF LINGUISTICS
3 hours credit
An introductory study of nature of language from both a theoretical and applied perspective. The focus is on the study of sounds and articulation (phonetics), sound systems (phonology), word structure and formation (morphology), phrase and sentence structure (syntax), aspects of meaning (semantics) and will also concentrate on applied aspects of linguistic study such as neurolinguistics, psycholinguistics, sociolinguistics, computational linguistics, and first and second language acquisition. To provide students with a fundamental understanding of core areas of linguistics and to equip students with the analytical techniques and methods required to solve questions about language. **Prerequisite:** Permission of the instructor. **Three hours per week.**

537. SURVEY OF MODERN ENGLISH GRAMMAR
3 hours credit
To provide an understanding of the systematic structure and rules of English, i.e., the system underlying the construction of possible sentences in the English language; the grammatical terminology and concepts necessary for the analysis of English structures, i.e., the metalanguage of analysis; the application of such a theoretical background in the actual linguistic analysis of English constructions; the utility of such a knowledge in the future teaching of English, to both native and ESOL speakers; and some typical fallacies concerning the structure and pedagogical applications of English grammar. **Prerequisite:** ENGL 240 or 430/536 or permission of the instructor. **Three hours per week.**

538. BILINGUALISM
3 hours credit
To familiarize students with various aspects of bilingual education and language contact from a social-psychological perspective. Explore the role of the mind in bilingualism and in language acquisition. Content addresses the societal, political and cultural implications of bilinguality and the cognitive and educational implications. It aims to provide analysis and evaluation of current theory and research on bilingualism, as well as for examination of pertinent pedagogical implications/applications. **Prerequisite:** Permission of the instructor. **Three hours per week.**

539. SECOND LANGUAGE ACQUISITION
3 hours credit
An introduction to second language acquisition (SLA) theory and application of SLA theory to second/foreign language teaching practices. Explores what it means to know a language and, hence, how one learns a second language. **Prerequisite:** ENGL 240 or 430/536 or permission of the instructor. **Three hours per week.**

547. CURRENT APPROACHES IN ESOL INSTRUCTION
3 hours credit
Familiarizes students with the foundations of teaching English to speakers of other languages (ESOL). It provides for examination of current theory and empirical data on language learning and teaching. Participants will examine pedagogical implications/applications of teaching methodologies intended for non-native speakers of English by examining the latest research data. This course seeks to meet the needs of practicing or prospective teachers enrolled in a graduate program. **Three hours per week.**

553. MODERN POETRY
3 hours credit
A study of British and American poetry from Yeats through World War II. Poets include Hopkins, Yeats, Eliot, Pound, Frost, Williams, Robinson, Crane, Stevens, Auden and Dylan Thomas. **Three hours per week.**

561. FEMINIST LITERATURE AND THEORY
3 hours credit
A survey of the growth and transformation of feminist literature and theory from the birth of the woman’s movement in the nineteenth century to contemporary cultural feminist writings. We will also investigate modern and contemporary images and representations of women in literature, film and popular culture from a critical perspective that celebrates cultural diversity and alternative viewpoints. **Three hours per week.**

563. LITERARY ANALYSIS
3 hours credit
Analytical approaches to literature designed to teach teachers and prospective teachers traditional, formal, psychological, mythological and exponential analyses of narrative fiction, drama and poetry applied to the various genres. **Three hours per week.**

565. RESEARCH IN COMPOSITION
3 hours credit
Explores current theories and research on writing process and product. Topics include: definitions of writing; rhetorical contexts; heuristics for pre-writing, writing and rewriting; questions of arrangement, style, grammar, mechanics and assessment. **Three hours per week.**

566. CURRENT PROBLEMS IN COMPOSITION RESEARCH
3 hours credit
Applies theoretical concepts from ENGL 465 to current issues in composition and rhetoric research (such as basic writing, methods of responding to student writing and audience adaptation). Emphasizes modes of research for continuing investigation of these issues. **Prerequisite:** ENGL 465/565 or approval of the instructor. **Three hours per week.**

567. HISTORY AND THEORY OF RHETORIC
3 hours credit
Study of how changing views of rhetoric affect public attitudes toward writing and influence writing instruction in schools and universities. Emphasizes shifting views toward style, argument and the relationship between persuasion and knowledge. **Three hours per week.**

571. MEDIEVAL ENGLISH LITERATURE
3 hours credit
A survey of literature produced in and around the British Isles between the 8th and 15th centuries of the Common Era. Anglo-Saxon and other early medieval selections presented in translation although the course includes instruction in rudimentary Old English. Middle English works (excluding Chaucer) presented in the original. Primary texts historicized and contextualized through secondary readings in history, ethnography, the arts, criticism. **Three hours per week.**

572. ELIZABETHAN AND JACOBEAN LITERATURE
3 hours credit
A study of major British literature, exclusive of Shakespeare, from 1500-1660. Authors include Sidney, Spenser, Donne and Milton. **Three hours per week.**
573. RESTORATION AND 18TH CENTURY LITERATURE
3 hours credit
A study of British literature from 1660 through the 18th century. Writers studied may include Behn, Rochester, Dryden, Defoe, Swift, Pope, Johnson, Boswell, Goldsmith, Burns and Blake. Three hours per week.

574. ROMANTIC LITERATURE
3 hours credit
Study of British poetry and aesthetics from the French Revolution through the first third of the 19th century. Primary readings from Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. Three hours per week.

575. VICTORIAN LITERATURE
3 hours credit
A study of major British literature during the reign of Queen Victoria. Writers studied may include Tennyson, Browning, Arnold, Carlyle, Newman and Ruskin. Three hours per week.

576. BRITISH NOVEL I: BEGINNINGS TO 1800
3 hours credit
A study of the British novel through the 18th century. Novelists studied include Defoe, Richardson, Fielding, Sterne, Smollett and Austen. Three hours per week.

577. BRITISH NOVEL II: 1800-1945
3 hours credit
A study of the British novel of the 19th and 20th centuries, with works chosen from the writings of Austen, Dickens, Thackeray, Trollope, Hardy, Conrad, D.H. Lawrence and Virginia Woolf. Three hours per week.

578. BRITISH NOVEL III: 1945 TO THE PRESENT
3 hours credit
A study of the British novel of the second half of the 20th century, with works chosen from Orwell, Golding, Amis, Murdoch, Spark, Byatt, Rushdie, McEwan, Barnes, Carter, Graham Swift and others. Three hours per week.

579. CONTEMPORARY TRENDS IN BRITISH LITERATURE
3 hours credit
Contemporary trends in British literature from 1970 to the present. Writers may include Penelope Fitzgerald, Anita Brookner, A. S. Byatt, Seamus Heaney, Geoffrey Hill, Tom Stoppard, William Trevor, Martin Amis, Graham Swift, Ian McEwan and Brian Friel. Three hours per week.

580. COLONIAL AMERICAN LITERATURE
3 hours credit
A study of American literature prior to 1820. Writers studied may include Bradford, Bradstreet, Taylor, Edwards, Franklin, Irving and Cooper. Three hours per week.

581. THE AMERICAN RENAISSANCE
3 hours credit
A study of the Transcendental Movement and literature between 1830 and 1870. Emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, Whitman and Dickinson. Three hours per week.

582. AMERICAN SOUTHERN RENAISSANCE: 1930-1970
3 hours credit
A study of fiction produced in the South between 1930 and 1970. Writers may include Glasgow, Faulkner, O'Connor, Welty, Porter, Warren, Percy, Capote, Taylor, Grau, Styron and Young. Three hours per week.

583. AMERICAN NOVEL I: BEGINNINGS TO 1900
3 hours credit
A study of major American novels through 1900. Writers studied may include Crane, Hawthorne, Melville and Twain. Three hours per week.

584. AMERICAN NOVEL II: 1900-1945
3 hours credit
A study of major American novels between 1900 and World War II. Writers studied may include Cather, Faulkner, Fitzgerald, Hemingway, Hurston, James, Lewis and Wharton. Three hours per week.

585. AMERICAN NOVEL III: 1945-PRESENT
3 hours credit
A study of major American novels since World War II. Writers may include Pynchon, Roth, Morrison, McCarthy, Mukherjee, DeLillo, Kerouac, Nabokov. Three hours per week.

586. CONTEMPORARY TRENDS IN AMERICAN LITERATURE
3 hours credit

587. TOPICS IN ENGLISH: LITERATURE
1-3 hours credit
Intensive study of a literary genre, figure or period. May be repeated for credit in different areas of study.

588. TOPICS IN LINGUISTICS AND LANGUAGE LEARNING
3 hours credit
An examination of selected topics of linguistics as they relate directly to first and second language learning. The course may focus in different semesters on such topics as phonology and language learning, syntactic theory and language learning, or discourse and language learning. This course may be repeated once under different course subtitles. Prerequisite: ENGL 430/536. Three hours per week.

589. PRACTICUM IN ENGLISH
1-3 hours credit
Under the close supervision of a master teacher, an advanced student in an English option interns as a teaching assistant in a lower-division course in that option. Prerequisites: Nine hours of course work in that option, approval of department chair. Variable hours per week.

590. TOPICS IN ENGLISH: WRITING OR FILM
1-3 hours credit
Intensive study in language or film. May be repeated for credit in different areas of study.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

400. BUSINESS ENGLISH FOR INTERNATIONALS
3 hours credit
Introduction to the specific English language skills needed in the genre of business and in technical communication for students for whom English is not a native language. The course aims at augmenting English skills through contextualized vocabulary and language enrichment via exposure to content-rich materials in the area of marketing, international business, management and computer applications. Students will be exposed to both formal and informal protocols of the discourse of business English via a variety of media. Prerequisite: Permission of the instructor. Three hours per week.
ENVIRONMENTAL HEALTH SCIENCE
(ENVH)

110. INTRODUCTION TO ENVIRONMENTAL SCIENCE
3 hours credit
Introduction to the interactions of living organisms and the environment, with an emphasis on human interactions. Environmental science principles, consequences of environmental pollution and resource depletion that lead to environmental degradation are presented. Global environmental challenges, such as global stratospheric ozone depletion and biodiversity loss are examined, along with air and water pollution and population issues. May not be used to satisfy requirements for the environmental health science major. Three hours per week. Meets General Education III.B.

210. INTRODUCTION TO ENVIRONMENTAL HEALTH SCIENCE
3 hours credit
Introduces students to aspects of human impact on the environment and means of monitoring, controlling and regulating detrimental practices. Topics include food technology and protection; housing, industrial, occupational and recreational environments; air quality, waste management; and water quality and pollution control programs. May be taken for biology credit by non-environmental health science majors. Prerequisite: BIOL 210 or 212 or 213. Three hours per week.

301. PRINCIPLES OF EPIDEMIOLOGY
3 hours credit
Introduction to basic principles, history and scope of epidemiology. Emphasis on study of patterns of diseases related to environmental factors. May be taken for biology credit by non-environmental health science majors. Prerequisites: ENVH 210 and MATH 155 or 213. Three hours per week.

302. FOOD ASPECTS OF ENVIRONMENTAL HEALTH SCIENCE
3 hours credit
Study of food and dairy products process, handling, preparation, storage, preservation, associated illnesses and regulatory programs as they impact human health and environmental health control programs. May be taken for biology credit by non-environmental health science majors. Prerequisite: ENVH 210. Three hours per week.

310. SHELTER AND INSTITUTIONAL ENVIRONMENTS
3 hours credit
Study of environmental health problems associated with human dwellings. Emphasizes sociological and educational principles as important to problem solution. Considers environmental health problems of hospitals, nursing homes, jails, schools, colleges and other public institutions. Prerequisite: ENVH 301. Three hours per week.

320. SAFETY AND OCCUPATIONAL HEALTH
3 hours credit
Study of health and safety problems found in industry and analysis of acute and chronic diseases associated with various occupations and industrial settings. Considers Occupational Safety and Health Administration (OSHA) regulations and other federal and state mandates in depth. Prerequisite: ENVH 301. Three hours per week.

330. SOLID AND HAZARDOUS WASTE MANAGEMENT
3 hours credit
Study of the generation, collection and disposal of solid and hazardous waste materials. Considers Toxic Substance Control Act, Department of Transportation Regulation, the Resource Conservation and Recovery Act in detail. Prerequisite: CHEM 221. Three hours per week.

415. RESEARCH IN ENVIRONMENTAL HEALTH SCIENCE
3 hours credit
Research experience as an independent study under the supervision of a faculty member. Prerequisite: Permission of instructor. Schedule to be arranged individually.

420. READINGS IN ENVIRONMENTAL HEALTH SCIENCE
1-2 hours credit
Selected readings in a specific area of environmental health science. Process of gathering, interpreting and communicating specific information is emphasized. Ten pages of research report(s) are required for each credit hour. Prerequisites: Junior or senior standing and approval of the instructor.

425. TOXICOLOGY
3 hours credit
Introduction to basic principles, history and scope of modern toxicology, and to the effects and to the mechanisms of toxicants. Includes applications to risk assessment, regulations and industry. Cross-listed with BIOL 425. May not be taken for credit if student has credit for BIOL 425. Prerequisite: Junior standing, eight hours of chemistry or eight hours of biology or permission of instructor. Three hours per week.

430. GROUND AND SURFACE WATER QUALITY
4 hours credit
Study of the science and management of ground and surface water quality. Emphasis on health effects exposure assessment, regulation and public health policy. Local, regional and global water quality issues covered. Prerequisites: ENVH 210, junior standing and 16 hours of science courses. Three hours lecture, three hours laboratory per week.

440. AIR QUALITY
4 hours credit
Study of the science and management of ambient and indoor air quality. Emphasis on health effects exposure assessment, regulation and public health policy. Local, regional and global air quality issues covered. Prerequisites: ENVH 210, junior standing and 16 hours of science courses. Three hours lecture, three hours laboratory per week.

450. PUBLIC HEALTH ADMINISTRATION
3 hours credit
In-depth analysis of management practices and policies for environmental health programs. Considers relationship of these programs to federal and state government agencies. Prerequisites: ENVH 301 and either senior standing as an environmental health major or approval of program director. Three hours per week.

475. ENVIRONMENTAL ADMINISTRATION AND INTERNSHIP
6 hours credit
Basic concepts of environmental management, law, economics and risk analysis are presented during the spring, followed in the summer by an approved internship for a minimum of 40 hours a week for five weeks and participation in the a fall seminar series of presentations by student interns in the class. Prerequisite: Permission of the program director. One hour per week in spring and fall, plus minimum of 40 hours per week for five weeks in summer.

490. SPECIAL TOPICS IN ENVIRONMENTAL HEALTH SCIENCE
1-4 hours credit
Study of a specific area in environmental health science. Topic varies semester to semester. May be taken for up to eight credit hours under different subtitles. Prerequisite: ENVH 301.
495. ENVIRONMENTAL HEALTH
FIELD EXPERIENCE OPTION
1-3 hours credit
Work experience in an environmental health science or environmental protection office or agency. Does not substitute for the required ENVH 475 internship. Prerequisites: Junior standing, environmental health major and approval of advisor. Three hours work per week per credit hour up to three credit hours.

ENVIRONMENTAL ISSUES (ENVR)

102. EARTH LITERACY
3 hours credit
Experiential examination of the effects human activities have on the environment. Field trips may include: aquaculture facilities, commercial fishing operations, factory farms (of both plants and animals), organic farms, large-scale composting operations, sewage treatment plants, pine plantations, chip mills and power plants. Web enhanced, many readings and homework assignments will require Internet access. May not receive credit for both BIOL 105 and ENVR 102 without permission of instructor. Three hours per week. Meets General Education III B.

480. INTERNSHIP IN ENVIRONMENTAL STUDIES
3-6 hours credit
Provides opportunities to apply theory, principles and knowledge within a practical experience in a local, state, federal or private organization. Major paper and journal required. Prerequisite: Permission of environmental studies advisor. Eight hours a week for 14 weeks or equivalent.

499. ENVIRONMENTAL SENIOR SEMINAR
3 hours credit
Seminar and practicum focused on local environmental issue. Students will analyze the issue by doing background research and interviewing stakeholders. The seminar will culminate with a formal presentation in which students present their analysis and suggestions. Suggestions will be implemented if time and topic permits. Prerequisites: Junior status and completion of 20 core credits in environmental issues major. Three hours per week.

EXERCISE SCIENCE (EXSC)

185. INTRODUCTION TO EXERCISE SCIENCE
1 hour credit
Introduces the student to the exercise science discipline. Examination of concepts including professionalism, ethics, certification and licensure, employment opportunities and scientific foundations of the various subdisciplines. One hour per week.

237. EXERCISE LEADERSHIP
3 hours credit
Comparison of fitness programs currently offered in community settings. Emphasis on leading exercise for individuals and groups within these settings. Credit may not be received for both EXSC 237 and PHEC 237 or 482. Prerequisite: PHEC 108. Three hours per week.

301. RESEARCH METHODS IN EXERCISE SCIENCE
3 hours credit
Designed to help students understand, evaluate and conduct exercise science research. Class members will learn basic concepts and procedures used for conducting research and will become better consumers of research. Students will collaborate to design and present their original research study proposal. Prerequisite: Fifteen hours in exercise science and/or athletic training. Three hours per week.

302. STATISTICS AND MEASUREMENT IN EXERCISE SCIENCE
3 hours credit
Provides an introduction to univariate and multivariate distributions, descriptive statistics, correlation, simple and multiple regression, t-tests, ANOVA and repeated measures ANOVA. Introduces the student to the SPSS data analysis system. Mastery of course content will allow students to understand published research that includes statistical techniques and gain essential knowledge and background for higher level statistics courses. In addition, validity and reliability will be defined and evaluated. Designed to integrate statistics and measurement with the use of research in exercise science settings. Prerequisite: EXSC 301. Two hours lecture, two hours laboratory per week.

412. STRENGTH TRAINING TECHNIQUES AND PROGRAM DESIGN
3 hours credit
Examination of strength training techniques and program design. Emphasis placed on proper form and utilization of various workout designs to complement larger training goals. Students will gain experience in the theoretical and practical aspects of designing individual workout sessions, periodization and programming to enhance progression. The course is designed to assist the student in meeting the requirements to be eligible for and pass the Strength and Conditioning Association’s Certified Strength and Conditioning Specialist exam. Prerequisite: PHEC 108. Three hours per week.

413. EXERCISE AND STRENGTH TRAINING FOR REHABILITATION
3 hours credit
Review of the injury processes to bones and muscles that affect strengthening techniques and ability as well as the interaction of complicated medical history on exercise programs. Students will apply concepts of strengthening, cardiovascular and stretching techniques and design integrated programs for individuals with various medical conditions. Prerequisite: EXSC 412. Three hours per week.

462. EXERCISE PHYSIOLOGY, AGING AND SPECIAL POPULATIONS
3 hours credit
In-depth study of changes that occur due to acute and chronic exercise and the influence of aging on these processes. Examination of bioenergetics, fuel metabolism, neuromuscular, endocrine and cardiorespiratory physiology with emphasis on differences among those individuals with various medical conditions. Prerequisite: PHEC 392. Three hours per week.

479. PRACTICUM IN EXERCISE SCIENCE
12 hours credit
Internship experience designed to provide students with an opportunity to gain real-world experience in exercise science settings. Students select an internship site and complete 420 hours of work, completing assignments as outlined in the Exercise Science Internship Manual. Prerequisite: Completion of exercise science core course work or instructor consent. Corequisite: EXSC 480.

480. SEMINAR IN EXERCISE SCIENCE
3 hour credit
Seminar focusing on practical application of principles and techniques related to exercise science. The course will provide the student intern with an opportunity to discuss policies, procedures and practices within the related industries and solve potential problems associated with the transition from student to professional life. Prerequisite: Completion of exercise science core course work or instructor consent. Corequisite: EXSC 480.
FINANCE (FINA)

104. PERSONAL FINANCE
3 hours credit
Comprehensive survey of personal financial topics including budgeting; borrowing; savings and investments; life, health and casualty insurance; and home buying. Emphasis on lifetime economic cycle. Three hours per week.

311. FINANCIAL MANAGEMENT
3 hours credit
Addresses fundamental concepts in financial management such as security markets, interest rates, taxes, risk analysis, time value of money, valuation models and related global issues. Examines how financial managers help maximize the value of a firm by making capital budgeting, cost of capital and capital structure decisions. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

312. RISK MANAGEMENT AND INSURANCE
3 hours credit
Examines principles and practices of asset and income conservation for businesses and individuals through various risk-management techniques including insurance. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

338. SPECIAL TOPICS IN FINANCE
3 hours credit
Advanced study of varying finance topics based on students' interests and needs. May be repeated once for credit under different subtitle. May substitute for finance major elective depending on the topic (see director of undergraduate studies). Prerequisite: Varies by topic. Three hours per week.

440. CORPORATE FINANCE
3 hours credit
Study of corporate financial policy issues within the context of value creation. Topics include in-depth analysis of advanced capital budgeting methods, capital structure policy, dividend policy, derivatives and hedging risk within the context of corporate financial policy. Case studies, application-oriented articles and daily media reports used to bridge the academic/theoretical arguments to the real life problems/situations. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

441. INVESTMENTS I
3 hours credit
Examines the capital market and marketable securities traded in the market, with emphasis on stocks and fixed income securities. Topics include portfolio theory, the efficient market hypothesis and evaluation of portfolio performance. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

442. INVESTMENTS II
3 hours credit
Advanced study of security markets and investment alternatives. Topics include options, futures, advanced security analysis, portfolio theory, portfolio management and international dimensions of investing. Prerequisite: FINA 441 with grade of C or better. Three hours per week.

443. ESSENTIALS OF REAL ESTATE
3 hours credit
Analysis of the structure of real estate markets. Study of principles of mortgage lending, property appraisal and real estate investments. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

445. FINANCIAL INSTITUTIONS AND MARKETS
3 hours credit
Examines the structure and functions of depository and non-depository financial institutions, the money and capital markets, and the role of government in the financial markets. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

446. RETIREMENT PLANNING
3 hours credit
Introduces the student to the study and application of contemporary techniques for individual retirement planning. The instruction will include the retirement field as a profession, as well as the personal financial planning process (budgeting, emergency fund planning, credit and debt management) and personal financial statements. Other specific topics covered include: the Social Security system and Medicare, defined benefit plans versus defined contribution plans, vesting, tax effects of investing, qualified versus nonqualified plans and tax-advantaged retirement plans (401K, 403b, etc. accounts). Prerequisite: FINA 311 with grade of C or better. Three hours per week.

447. INTERNATIONAL FINANCIAL MANAGEMENT
3 hours credit
Analysis of the foreign exchange markets, exchange rate behavior and risk management, international trade financing, country risk analysis, international banking and the role of direct foreign investment. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

448. ESTATE PLANNING
3 hours credit
Introduces the student to the study and application of contemporary techniques for individual estate planning. The instruction will include the estate-planning field as a profession, as well as relevant financial services industry regulation. The course covers: the personal financial planning process (budgeting, emergency fund planning, credit and debt management), personal financial statements, property titling (types and consequences), monetary settlement, property transfer at death and estate documents. Prerequisite: FINA 311 with grade of C or better. Three hours per week.

449. PRACTICUM IN PORTFOLIO MANAGEMENT
3 hours credit
Practical experience in managing an investment portfolio in a teamwork environment, with emphasis on economic, industry and company analysis; report preparation; security selection; daily decision making; record keeping; and performance evaluation. Students will be responsible for making all material decisions in managing the Perdue School Student Managed Investment Fund and interact regularly with external advisors for feedback on their research. Completion of this course satisfies the ABLE requirement. May be repeated for an additional three hours credit. Prerequisites: FINA 441 and permission of instructor. Three hours per week.
490. FINANCE INTERNSHIP
3 hours credit
Intern experience in finance. May be used as a business concentration/track elective if approved by the school dean.
Prerequisite: Finance major. FINA 311 with grade of C or better, placement approval and permission of the department chair, completion of ABLE Office administrative requirements. Three hours per week.

491. ADVANCED FINANCE INTERNSHIP
3 hours credit
Research associated with an internship experience in finance. Prerequisite: FINA 490, placement approval and permission of the department chair, completion of ABLE Office administrative requirements. Three hours per week.

535. HEALTH CARE FINANCE
3 hours credit
Introduction to financial management in the health care environment. Designed for nurse/managers, this course covers financial accounting and analysis, financial management (including the mathematics of finance), cost accounting, budgeting, control systems, forecasting, working capital management and third party reimbursements. Three hours per week.

540. GRADUATE SURVEY OF FINANCE
3 hours credit
Comprehensive course in modern financial management. Includes financial theories, working capital management, capital acquisition, international finance, mergers and acquisitions, bankruptcy and reorganization and leasing. M.B.A. leveling course. Prerequisite: Provisional status in M.B.A. program and BUAD 510, 520, 530 or permission of M.B.A. director. Three hours per week.

650. CORPORATE FINANCIAL MANAGEMENT
3 hours credit
Review of financial theory and techniques. Topics include long-term investment decisions, capital structure and dividend policy, long-term financing decisions, financial analysis and planning, short-term financial management, and multinational financial management. Prerequisite: Admission to M.B.A. program. Three hours per week.

685. INTERNATIONAL FINANCE SEMINAR
3 hours credit
Study of international aspects of business management and the environment of international business. Topics selected from international finance, the economics of international finance, the economics of international trade, environmental factors (e.g., cultural, legal, political) and the major aspects of business operations in the global environment. Prerequisite: Admission to M.B.A. program. Three hours per week.

FRENCH (FREN)

101. ELEMENTARY FRENCH I
3 hours credit
Beginning spoken and written French with emphasis on the sound system and the basic structures of the language. Any student with two or more years of high school French or equivalent experience is ineligible for this course without expressed permission of the instructor. Three hours per week. Meets General Education IB.

102. ELEMENTARY FRENCH II
3 hours credit
Continuation of skill development in spoken and written French with further study of major structures. Recommended Prerequisite: FREN 101 or at least one year of high school French. Three hours per week. Meets General Education IB.

201. INTERMEDIATE FRENCH
3 hours credit
Continued development and refinement of language skills with emphasis on reading, writing and vocabulary development. Recommended Prerequisite: FREN 102 or at least two years of high school French. Three hours per week. Meets General Education IB.

202. INTERMEDIATE AND APPLIED FRENCH
3 hours credit
Continued development, refinement and application of language skills with emphasis on reading, writing and vocabulary development. Satisfies the language requirement for English majors. Recommended Prerequisite: FREN 201 or at least three years of high school French. Three hours per week. Meets General Education IB.

300. TOPICS IN FRENCH LITERATURE
3 hours credit
Study of an author, period, movement, genre or theme in French. Topic may vary semester to semester. May be repeated once with new content. Prerequisite: FREN 310 or permission of department chair. Three hours per week.

303. READING SKILLS AND STRATEGIES IN FRENCH
3 hours credit
Development of reading skills and strategies using authentic texts. Emphasis on reading for specific purposes and continued acquisition of vocabulary. Prerequisite: FREN 202. Three hours per week.

305. SHORT FICTION IN FRANCE IN TRANSLATION
3 hours credit
Survey of the short story in French literature from the 16th through 20th centuries with works by Marguerite de Navarre, Voltaire, Mercier, Balzac, Maupassant, Camus, Sartre and Marguerite Duras among others. Prerequisite: ENGL 102. Three hours per week. Meets General Education IA.

310. FRENCH GRAMMAR AND COMPOSITION
3 hours credit
Intensive review and application of grammar using exercises, compositions, dictation and papers to strengthen proficiency in writing. Continued acquisition of vocabulary and oral skills. Recommended Prerequisite: FREN 202 or equivalent experience. Three hours per week.

312. FRENCH CONVERSATION
3 hours credit
Proficiency-based conversation focusing on the refinement of listening and speaking skills and vocabulary acquisition through role playing, small group and class discussion, oral reports and presentations. Introduction to phonetics. Recommended Prerequisite: FREN 202 or equivalent experience. Three hours per week.

316. FRENCH CULTURE AND CIVILIZATION I
3 hours credit
Study of French civilization tracing major historical, cultural and artistic themes from the 16th to the 18th century. Prerequisite: FREN 303 or equivalent experience. Three hours per week.

317. FRENCH CULTURE AND CIVILIZATION II
3 hours credit
Study of French civilization tracing major historical, cultural and artistic themes from the 18th to the 20th century. Prerequisite: FREN 303 or equivalent experience. Three hours per week.

322. FRENCH FOR BUSINESS
3 hours credit
Intensive review of conversational skills and grammatical structures within the context of business, technology and everyday life. Prerequisite: FREN 202 or equivalent experience. Three hours per week.
325. FRANCOPHONE CULTURE THROUGH LITERATURE
3 hours credit
A selection of short fiction, poetry and drama in French from the 19th and 20th centuries, centering on major cultural themes such as religion, chauvinism, honor, the family, etc. in the French-speaking world. Prerequisites: FREN 303, 310. Three hours per week. Meets General Education IA.

350. SENSUALITY IN FRENCH LITERATURE
FROM 1000 TO 1700
3 hours credit
The theme of sensuality in major works from the Middle Ages to the Enlightenment: medieval conflict, humanistic synthesis, classic rigidity. (“Song of Roland.” Lays of Marie de France, Essays-Montaigne. Gargantua-Rabelais, Racine. Corneille, Moliere.) Taught in English. Cross listed with ENGL 315. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

351. FRENCH LITERATURE OF PROTEST
IN TRANSLATION (1700-1970)
3 hours credit
Study of the emergence of France as a nation through the revolutionary literature of 1789, the intense emotionalism of the romantics, the realist observations and the existential absurd of France today. Taught in English. Cross listed with ENGL 316. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

401. ADVANCED COMPOSITION AND MORPHOLOGY
3 hours credit
Synthesis on an intense, advanced level of all of the principles of morphology, syntax, sentence development and sentence structure through translation and detailed composition. Prerequisite: FREN 310 or permission of department chair. Three hours per week.

402. ADVANCED CONVERSATION
3 hours credit
Provides greater flexibility in the spoken language by intense oral practice to correct the defects of pronunciation and diction through phonetics. Prerequisite: FREN 312 or permission of department chair. Three hours per week.

480. SENIOR SEMINAR
1-3 hours credit
For senior French majors. Research encompassing several areas of French life and culture, language and literature is brought to bear upon a single theme or issue. Prerequisite: Senior standing.

496. FRENCH INDEPENDENT STUDY
1-3 hours credit
Individual study in any area of language, culture or literature of the French-speaking world with the advice and direction from a member of the department. May be repeated with new content for a maximum of six credits. Prerequisites: Graduate standing, permission of department chair.

596. FRENCH INDEPENDENT STUDY
1-6 hours credit
Individual study in any area of language, culture or literature of the French-speaking world with the advice and direction from a member of the department. May be repeated with new content for a maximum of six credits. Prerequisites: Graduate standing, permission of department chair.

GENERAL STUDIES (GENL)

001. NEW STUDENT SEMINAR
0 hours credit
Orients new students to the university experience. Required of all new students with fewer than 24 hours of university credit. Nine to 13 hours per semester.

090. EFFECTIVE STUDY TECHNIQUES
0 hours credit
Preparation and practice of a variety of established study methods: note taking, time management, concentration, memorizing, test taking and report writing. May be offered for two hours per week all semester or for three hours per week for 10 weeks. Offered on an S/U basis, for internal credit only.

101. HUMAN SEXUALITY
3 hours credit
Study of the human sexual nature, with emphasis on the biological, philosophical, psychological and sociological aspects of human sexuality. Team-taught by faculty from two or more disciplines. Students may not receive credit for both this course and PSYC 325. Three hours per week. (P/F)

110. PERSONAL CAREER PLANNING
2 hours credit
The career search process. Goal oriented toward the planned process of selecting a major or occupational direction. The history, theory, philosophy and economics of the world of work. Occupational testing, decision making, values clarification skills and guest lectures employed. Recommended for freshmen, sophomores and undeclared majors. Three hours per week.

120. COLLEGE READING SKILLS
3 hours credit
Extensive practice in reading, analyzing and critically evaluating nonfiction texts. The student will outline and summarize articles and books through written and oral methods. Techniques of reading comprehension will be discussed and practiced. Projects will relate the skills of this class to the readings in the student’s other courses. Three hours per week.

150. SELECTED TOPICS IN DEVELOPMENTAL EDUCATION
1-3 hours credit
Innovative approaches to developmental education. Provides opportunities for curricular experimentation in the developmental studies areas of reading behavior, writing, foundation- al math skills and critical thinking.

152. RESIDENCE HALL LEADERSHIP
1 hour credit
An examination of models of community development with special emphasis on residence halls. Interactive problem-solving emphasized. Prerequisite: Selection into Resident Assistant Program. Two hours per week for eight weeks.

191. SPECIAL TOPICS: TV, COLLEGE OF THE AIR COURSES
1-3 hours credit
Study of a specific academic area. Topic may vary semester to semester. Course may be repeated under different subtitles.
GEOGRAPHY

Geography - Human (GEOG)

100. INTRODUCTION TO HUMAN GEOGRAPHY
3 hours credit
Introduction to the variable human character of the earth. Contemporary world problems such as population, growth, economic development, urbanization, resource utilization and human alteration of the natural environment are examined from a locational perspective. Three hours per week. Meets General Education IIB.

101. WORLD GEOGRAPHY: EUROPE AND ASIA
3 hours credit
A geographic study of the countries of Europe and Asia emphasizing their physical and cultural characteristics. Special attention to contemporary issues/problems. Three hours per week. Meets General Education IIB.

102. WORLD GEOGRAPHY: AFRICA AND AMERICA
3 hours credit
Geographic study of countries of Africa and the Americas emphasizing their physical and cultural characteristics. Special attention to contemporary issues/problems. May not receive credit for both GEOG 301 and GEOG 102. Three hours per week. Meets General Education IIB.

109. CONSERVATION AND RESOURCE MANAGEMENT
3 hours credit
Examination of the nature, supply, distribution and use of selected natural resources. Emphasis on practical and efficient utilization of soils, farmland, water, forests, energy and mineral resources. Three hours per week.

202. CULTURAL GEOGRAPHY
3 hours credit
Examination of some of the basic concepts of human geography. Emphasis on such subjects as cultural origins and diffusion, perception, settlement forms and the relationship between humans, their culture and the physical environment. Three hours per week. Meets General Education IIB.

203. ECONOMIC GEOGRAPHY
3 hours credit
Analysis of the locational factors explaining the geographic distribution of economic activity: rural and urban land use, cities, industry, transport and trade, economic development. Three hours per week. Meets General Education IIB.

220. HUMANS AND THE ENVIRONMENT
4 hours credit
Interdisciplinary laboratory course in conjunction with the departments of Biology and Chemistry designed for non-science majors to develop awareness of ways earth's environment is influenced by human activities and effects of the environment on human society. May not be repeated for credit in the Biology or Chemistry departments; may not be used to satisfy course requirements within the major. For students in the Honors Program. Three hours lecture, two hours laboratory per week.

301. WORLD REGIONS
3 hours credit
Examination of contemporary patterns of life in selected areas of the world from a regional viewpoint. Attention given to the physical environment, resource use, economic activities, demographic and sociocultural characteristics and regional problems. Prerequisite: GEOG 100 or 101 or 102 or 104 or 105. Three hours per week. Meets General Education IIB.

302. GEOGRAPHY OF THE UNITED STATES AND CANADA
3 hours credit
Analysis of contemporary patterns of American and Canadian life from a regional perspective. Major topics include the physical environment, resource and land use, economic activities, demographic and sociocultural characteristics, and regional problems. Prerequisite: GEOG 100 or 101 or 102 or 104 or 105. Three hours per week.

308. PRINCIPLES OF PLANNING
3 hours credit
Analysis of the theory and practice of planning at various spatial levels (local, regional, state and federal). Emphasis on planning processes, responsibilities of professional planners, and detailed examination of contemporary issues like control of sprawl and coastal zone management. May not receive credit for both GEOG 208 and GEOG 308. Prerequisite: Junior standing. Three hours per week.

310. REGIONAL GEOGRAPHY OF EUROPE
3 hours credit
Regional analysis of contemporary geographic patterns of Europe. Emphasis on physical, economic and political patterns and regional problems. Prerequisite: GEOG 100 or 101 or 102 or 104 or 105. Three hours per week.

328. APPLIED PLANNING
3 hours credit
Application of planning principles and theories to real world land-use issues. Particular attention will be paid to the subdivision plat review process, zoning ordinances, and the role of citizens and local government in planning. Several actual planning case studies will be examined. Prerequisite: GEOG 306. Three hours per week.

399. INTERNATIONAL FIELD STUDY
3-6 hours credit
On-site study of the geography, history and culture of selected countries. Pre-tour lectures and other activities required. May be repeated once for credit. Prerequisite: Permission of instructor.

402. ENVIRONMENTAL PLANNING
3 hours credit
Translation of responsible environmental policies and principles into practical land-use regulations and local and regional planning tools. Emphasis on the landscape and land-use dimensions of environmental planning. Prerequisite: GEOG 308 or BIOL 310. Three hours per week may include three one-day field trips.

403. ENVIRONMENTAL HAZARDS
3 hours credit
Introduces students to the geographic principles and theories of natural and technological hazards. Both the physical properties of hazards and the human actions and reactions to hazards will be emphasized. Prerequisite: Six credits of geography. Three hours per week.

404. RURAL GEOGRAPHY AND LAND-USE PLANNING
3 hours credit
Analysis of the economic, demographic and spatial patterns of the rural United States. Special attention given to the problems and potentialities of non-metropolitan areas and to land use planning. Prerequisite: GEOG 203. Three hours per week.

406. REGIONAL PLANNING
3 hours credit
Analysis of the spatial incidence of economic growth. Emphasis on the spatial dimension as an important consideration in the theory and practice of economic development planning. Prerequisites: GEOG 203, 308. Three hours per week.
408. URBAN PLANNING
3 hours credit
Examination of theories and policies related to urban development and land use planning, along with techniques for evaluation. Assessment of the urban planning process with case studies. Prerequisite: GEOG 308. Three hours per week.

415. SELECTED PROBLEMS
3 hours credit
Independent study permitting research or in-depth work on a selected topic to be indicated on student’s transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisite: Permission of department chair.

422. READINGS IN GEOGRAPHY
3 hours credit
Permits in-depth study of a selected topic to be indicated on student’s transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisite: Permission of department chair.

450. TOPICS IN GEOGRAPHY
3 hours credit
Analysis of a selected systematic/regional topic to be entered on the student’s transcript. May be taken three times for credit under different subtitles. Prerequisite: Permission of department chair. Three hours per week.

460. INTERNSHIP
1-3 hours credit
Provides students with opportunities to apply geographic/planning theory, techniques and knowledge as practicing professionals. Intended for seniors with 18 or more hours in geography. May not be used to satisfy requirements for the major. Prerequisite: Permission of department chair. Three hours per week for each credit hour. (P/F)

475. FIELD PROBLEMS IN GEOGRAPHY
3-6 hours credit
Geographic research field experience. Development of a research proposal, collection and analysis of data and the integration of such in a formal research paper. Prerequisite: Permission of instructor.

499. GEOGRAPHY HONORS
5 hours credit
Two-semester independent study leading to preparation of an honors thesis and graduation with honors in geography. Students may enroll by invitation of the department only. Specific topic indicated on the student’s transcript. Prerequisite: Permission of department chair.

503. ENVIRONMENTAL HAZARDS
3 hours credit
Introduces students to the geographic principles and theories of natural and technological hazards. Both the physical properties of hazards and the human actions and rejections to hazards will be emphasized. Prerequisite: Graduate standing. Three hours per week.

505. RURAL GEOGRAPHY AND LAND-USE PLANNING
3 hours credit
Analysis of the economic, demographic and spatial patterns of the rural United States. Special attention given to the problems and potentialities of non-metropolitan areas and to land use planning. Prerequisites: Graduate standing and GEOG 203 or permission of instructor. Three hours per week.

507. REGIONAL PLANNING
3 hours credit
Analysis of the spatial incidence of economic growth. Emphasis on the spatial dimension as an important consideration in the theory and practice of economic development planning. Prerequisites: Graduate standing and GEOG 203 or permission of instructor. Three hours per week.

508. URBAN PLANNING
3 hours credit
Examination of theories and policies related to urban development and land use planning, along with techniques for evaluation. Assessment of the urban planning process with case studies. Prerequisites: Graduate standing and GEOG 308 or permission of instructor. Three hours per week.

515. SELECTED PROBLEMS
3 hours credit
Independent study permitting research or in-depth work on a selected topic to be indicated on student’s transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisites: Graduate standing and permission of department chair.

522. READINGS IN GEOGRAPHY
3 hours credit
Permits in-depth study of a selected topic to be indicated on student’s transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisites: Graduate standing and permission of department chair.

530. DIRECTED RESEARCH
3 hours credit
Preparation of optional research project in master’s degree program under departmental direction. Prerequisites: Graduate standing and permission of department chair.

550. TOPICS IN GEOGRAPHY
3 hours credit
Analysis of a selected systematic/regional topic to be entered on the student’s transcript. May be taken three times for credit under different subtitles. Prerequisites: Graduate standing and permission of department chair. Three hours per week.

560. INTERNSHIP
1-3 hours credit
Provides students with opportunities to apply geographic/planning theory, techniques and knowledge as practicing professionals. Intended for seniors with 18 or more hours in geography. May not be used to satisfy requirements for the major. Prerequisite: Approval of the department. Three hours per week for each credit hour. (P/F)

575. FIELD PROBLEMS IN GEOGRAPHY
3-6 hours credit
Geographic research field experience. Development of a research proposal, collection and analysis of data and the integration of such in a formal research paper. Prerequisites: Graduate standing and permission of department chair.

Geography - Methodology (GEOG)

200. APPLICATIONS IN GEOGRAPHIC INFORMATION SYSTEMS
3 hours credit
Introduction to the current practices in GIS, focusing on their application in the sciences, the development of public policy and business. Basic theory and practice is supported by hands-on experience with ArcView software. May not be taken for credit if student has credit for GEOG 319. Prerequisites: Sophomore standing and GEOG 100 or 102 or 104 or 105 or GEOL 103 or BIOL 310. Two hours lecture, two hours laboratory per week.

204. SPATIAL ANALYSIS
4 hours credit
Introduction to the basic principles of quantitative analysis in geography. Emphasis on the geographic applications of vari-
ous techniques rather than on the underlying statistical theory. Prerequisite: MATH 155 or 213. Four hours per week.

219. MAP INTERPRETATION AND ANALYSIS
3 hours credit
Introduction to mapping science principles and practice, focusing on the application of methods to map interpretation. Topics covered include surveying (compass and pace), map projections, fundamentals of GPS, map compilation and design, and an introduction to GIS. Two hours lecture, two hours laboratory per week.

318. LOCAL FIELD COURSE
3 hours credit
Familiarizes students with some of the basic field techniques of geography. Land use field studies and mapping of the rural and urban areas of eastern Maryland scheduled for Sundays. Prerequisite: Twelve hours in geography or permission of instructor. Four hours per week including five one-day field trips.

319. GEOGRAPHIC INFORMATION SCIENCE
4 hours credit
Study of automated information handling using geographically referenced data to support spatial analysis. Consideration of and experience in the collection, storage and display of computer manipulated data. Includes hands-on experience with a variety of commercial software GIS packages. Prerequisite: GEOG 219. Three hours lecture, two hours laboratory per week.

320. CARTOGRAPHIC VISUALIZATION
3 hours credit
Theory and application of cartographic principles and practices to advanced cartographic design. Lectures emphasize theory and principles. Laboratory provides practical experience in design. Prerequisite: GEOG 200 or 219. Two hours lecture, two hours laboratory per week.

321. REMOTE SENSING OF THE ENVIRONMENT
3 hours credit
Analysis of satellite imagery of the earth's surface. Includes techniques necessary for collection, storage and display of digital images to analyze environmental problems. Prerequisite: 12 hours in geography. Two hours lecture, two hours laboratory per week.

335. COMPUTER CARTOGRAPHY
3 hours credit
Theory and application of computer graphics to cartography. Emphasis on writing programs which produce computer-generated maps and which apply computer graphics to the solution of geographic problems. Prerequisite: GEOG 320 or COSC 118 or 116 or 117 or 118. Three hours per week.

414. RESEARCH AND WRITING
3 hours credit
Development of research methods in geography. Topics include formulation of problems, establishment of hypotheses, development of structures for testing hypotheses and practice with forms of geographic presentation. Maps, numerical and field methods are used. May not receive credit for both GEOG 300 and GEOG 414. Prerequisites: GEOG 204, junior-level standing, 12 credits in geography. Three hours per week.

415. SELECTED PROBLEMS
3 hours credit
Independent study permitting research or in-depth work on a selected topic to be indicated on the student's transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisite: Permission of department chair.

419. ADVANCED GEOGRAPHIC INFORMATION SCIENCE
3 hours credit
Study of current theories and development trends in GIS technology. Emphasis on hands-on working knowledge utilizing ARC/INFO software. Prerequisites: GEOG 319 and COSC 118 or 120. Three hours lecture, two hours laboratory per week.

422. READINGS IN GEOGRAPHY
3 hours credit
Permits in-depth study of a selected topic to be indicated on student's transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisite: Permission of department chair.

450. TOPICS IN GEOGRAPHY
3 hours credit
Analysis of a selected systematic/regional topic to be entered on student's transcript. May be taken three times for credit under different subtitles. Prerequisite: Permission of department chair. Three hours per week.

460. INTERNSHIP
1-3 hours credit
Provides students with opportunities to apply geographic/planning theory, techniques and knowledge as practicing professionals. Intended for seniors with 18 or more hours in geography. May not be used to satisfy requirements for the major. Prerequisite: Permission of department chair. Three hours per week for each credit hour. (P/F)

475. FIELD PROBLEMS IN GEOGRAPHY
3-6 hours credit
Geographic research field experience. Development of a research proposal, collection and analysis of data and the integration of such in a formal research paper. Prerequisite: Permission of instructor.

499. GEOGRAPHY HONORS
6 hours credit
Two-semester independent study leading to preparation of an honors thesis and graduation with honors in geography. Students may enroll by invitation of the department only. Specific topic indicated on the student's transcript. Prerequisite: Permission of department chair.

515. SELECTED PROBLEMS
3 hours credit
Independent study permitting research or in-depth work on a selected topic to be indicated on the student's transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisites: Graduate standing and permission of department chair.

522. READINGS IN GEOGRAPHY
3 hours credit
Permits in-depth study of a selected topic to be indicated on student's transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. Prerequisites: Graduate standing and permission of department chair.

530. DIRECTED RESEARCH
3 hours credit
Preparation of optional research project in master's degree program under departmental direction. Prerequisites: Graduate standing and permission of department chair.

550. TOPICS IN GEOGRAPHY
3 hours credit
Analysis of a selected systematic/regional topic to be entered on student's transcript. May be taken three times for credit under different subtitles. Prerequisites: Graduate standing and permission of department chair. Three hours per week.
560. INTERNSHIP
1-3 hours credit
Provides students with opportunities to apply
graphic/planning theory, techniques and knowledge as
practicing professionals. Intended for seniors with 18 or more
hours in geography. May not be used to satisfy requirements
for the major. Prerequisite: Graduate standing and permis-
sion of department chair. Three hours per week for each
credit hour. (P/F)

575. FIELD PROBLEMS IN GEOGRAPHY
3-6 hours credit
Geographic research field experience. Development of a
research proposal, collection and analysis of data and the
integration of such in a formal research paper. Prerequisite:
Graduate standing and permission of department chair.

Geography - Physical (GEOG)

104. EARTH AND SPACE SCIENCE
4 hours credit
An introductory course in earth and space science for
prospective elementary school teachers. An examination of the
physical character of the Earth and its place in the solar
system. Students can not receive credit for both GEOG 104
and GEOG 105. This course is intended for elementary edu-
cation majors. Three hours lecture, two hours laboratory
per week. Meets General Education IIIA or IIIB.

105. INTRODUCTION TO PHYSICAL GEOGRAPHY
4 hours credit
Introduction to the variable physical character of the earth.
Treatment of weather, climate, soil, vegetation, landforms and
oceanic circulation with emphasis on processes, interrela-
tionships and distributional patterns. Students can not receive
credit for both GEOG 104 and GEOG 105. Three hours lec-
ture, two hours laboratory per week. Meets General
Education IIIA or IIIB.

107. WEATHER AND HUMAN AFFAIRS
3 hours credit
Comprehensive introduction to weather and its effects on our
everyday lives. Influence of human activity on the atmos-
phere: acid rain, ozone depletion, global warming, nuclear
winter. Three hours per week. Meets General Education
IIIB.

201. PHYSICAL GEOGRAPHY/
WEATHER AND CLIMATE
4 hours credit
Examination of weather and climate with emphasis on
processes and distributional patterns. Interrelationships
between climatic controls stressed. Three hours lecture,
two hours laboratory per week. Meets General Education
IIIA or IIIB.

311. COASTAL PROCESSES
3 hours credit
The study of coastlines and the geological forces that shape
them. Four hours of lecture/lab per week in the laboratory set-
ting and two mandatory half day Saturday field trips to
Assateague Island. Prerequisite: GEOG 104 or 105 or
GEOL 103 or permission of instructor. Two hours lecture,
two hours laboratory per week.

401. SOIL, WATER AND ENVIRONMENT
3 hours credit
Study of basic chemical and physical properties of soil, focus-
ing on surface hydrology of small watersheds and the related
techniques used in environmental planning. Prerequisite:
GEOL 103 or GEOG 104 or 105 or BIOL 310 or ENVH 210.
Two hours lecture, two hours laboratory or one field trip
per week.

410. METEOROLOGY
3 hours credit
Analysis of physical processes and dynamics of the atmos-
phere. Topics include upper atmospheric flow, forecasting
and severe weather. Prerequisite: GEOG 201. Three hours
per week.

411. GEOMORPHOLOGY
3 hours credit
Study of the surface of the earth and the geologic processes
that modify it. Topics include the effects of water, wind, ice
and other agents of erosion and deposition and the resulting
landforms. Prerequisite: GEOL 103 or GEOG 104 or 105.
Two hours lecture, two hours laboratory per week.

413. APPLIED CLIMATOLOGY
3 hours credit
Analysis of the impact of climate on the physical environment
and human behavior. Topics include climatic change, contem-
porary climatic problems and the influence of climate on agri-
culture, and energy use. Prerequisite: GEOG 201 or permis-
son of instructor. Three hours per week.

415. SELECTED PROBLEMS
3 hours credit
Independent study permitting research or in-depth work on a
selected topic to be indicated on student's transcript. May be
taken twice for credit under different subtitles. Intended for
seniors with 18 or more hours in geography. Prerequisite:
Permission of department chair.

422. READINGS IN GEOGRAPHY
3 hours credit
Permits in-depth study of selected topics to be indicated on
student's transcript. May be taken twice for credit under differ-
ent subtitles. Intended for seniors with 18 or more hours in
graphy. Prerequisite: Permission of department chair.

450. TOPICS IN GEOGRAPHY
3 hours credit
Analysis of a selected systematic/regional topic to be entered
on student's transcript. May be taken three times for credit
under different subtitles. Prerequisite: Permission of depart-
ment chair. Three hours per week.

460. INTERNSHIP
1-3 hours credit
Provides students with opportunities to apply
graphic/planning theory, techniques and knowledge as
practicing professionals. Intended for seniors with 18 or more
hours in geography. May not be used to satisfy requirements
for the major. Prerequisite: Permission of the department
chair. Three hours per week for each credit hour. (P/F)

475. FIELD PROBLEMS IN GEOGRAPHY
3-6 hours credit
Geographic research field experience. Development of a
research proposal, collection and analysis of data and the
integration of such in a formal research paper. Prerequisite:
Permission of instructor.

499. GEOGRAPHY HONORS
6 hours credit
Two-semester independent study leading to preparation of an
honors thesis and graduation with honors in geography.
Students may enroll by invitation of the department only.
Specific topic indicated on the student's transcript.
Prerequisite: Permission of department chair.

501. SOIL, WATER AND ENVIRONMENT
3 hours credit
Study of basic chemical and physical properties of soil, focus-
ing on surface hydrology of small watersheds and the related
techniques used in environmental planning. Prerequisite:
Graduate standing. Two hours lecture, two hours laborato-
ry or one field trip per week.

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504. SEMINAR: PHYSICAL GEOGRAPHY
3 hours credit
Seminar deals with current problems in the areas of meteorology, climatology, soils, geomorphology and vegetation. Topics selected with permission of instructor. May be taken twice for credit under different subtitles. **Prerequisites:** Graduate standing and permission of department chair. Three hours per week.

506. SEMINAR IN REGIONAL GEOGRAPHY
3 hours credit
Analysis of selected topics on the physical and/or human geography of specified geographic regions. The region under consideration varies from semester to semester. Topics chosen with permission of instructor. May be taken twice for credit under different subtitles. **Prerequisites:** Graduate standing and permission of department chair. Three hours per week.

510. METEOROLOGY
3 hours credit
Analysis of physical processes and dynamics of the atmosphere. Topics include upper atmospheric flow, forecasting and severe weather. **Prerequisites:** Graduate standing and GEOG 201 or permission of instructor. Three hours per week.

511. GEOMORPHOLOGY
3 hours credit
Study of the surface of the earth and the geologic processes that modify it. Topics include the effects of water, wind, ice and other agents of erosion and deposition and the resulting landforms. **Prerequisites:** Graduate standing and GEO 103 or permission of instructor. Two hours lecture, two hours laboratory per week.

513. APPLIED CLIMATOLOGY
3 hours credit
Analysis of the impact of climate on the physical environment and human behavior. Topics include climatic change, contemporary climatic problems and the influence of climate on agriculture, and energy use. **Prerequisites:** Graduate standing and GEOG 201 or permission of instructor. Three hours per week.

515. SELECTED PROBLEMS
3 hours credit
Independent study permitting research or in-depth work on a selected topic to be indicated on student’s transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. **Prerequisites:** Graduate standing and permission of department chair.

522. READINGS IN GEOGRAPHY
3 hours credit
Permits in-depth study of selected topics to be indicated on student’s transcript. May be taken twice for credit under different subtitles. Intended for seniors with 18 or more hours in geography. **Prerequisites:** Graduate standing and permission of department chair.

530. DIRECTED RESEARCH
3 hours credit
Preparation of optional research project in master's degree program under departmental direction. **Prerequisites:** Graduate standing and permission of department chair.

550. TOPICS IN GEOGRAPHY
3 hours credit
Analysis of a selected systematic/regional topic to be entered on student’s transcript. May be taken three times for credit under different subtitles. **Prerequisites:** Graduate standing and permission of department chair. Three hours per week.

560. INTERNSHIP
1-3 hours credit
Provides students with opportunities to apply geographic/planning theory, techniques and knowledge as practicing professionals. Intended for seniors with 18 or more hours in geography. May not be used to satisfy requirements for the major. **Prerequisites:** Graduate standing and permission of department chair. Three hours per week for each credit hour. (P/F)

575. FIELD PROBLEMS IN GEOGRAPHY
3-6 hours credit
Geographic research field experience. Development of a research proposal, collection and analysis of data and the integration of such in a formal research paper. **Prerequisites:** Graduate standing and permission of department chair.

GEOLOGY (GEOL)

103. INTRODUCTION TO PHYSICAL GEOLOGY
4 hours credit
Introduction to the nature and character of the Earth's crust and the geological processes that generate and shape landform features. Topics include minerals, rocks, earth structure and plate tectonics, geological processes and associated landforms. Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

405. ENVIRONMENTAL GEOLOGY
3 hours credit
Study of the fundamental principles and applications of environmental geology. Emphasis on environmental hazards, associated impact risks, and the dynamic interactions between humans and the environment. The topics covered include natural hazards, resources and the environment, land use and the environment, and environmental geology research methods. **Prerequisite:** GEO 103 or GEOG 104 or 105. Two hours lecture, two hours laboratory per week.

GERMAN (GERM)

101. ELEMENTARY GERMAN I
3 hours credit
Beginning spoken and written German with emphasis on the sound system and the basic structures of the language. Any student with two or more years of high school German or equivalent experience is ineligible for this course without expressed permission of the instructor. Three hours per week. Meets General Education IB.

102. ELEMENTARY GERMAN II
3 hours credit
Continued skill development in spoken and written German with further study of major structures. **Recommended Prerequisite:** GERM 101 or at least one year of high school German. Three hours per week. Meets General Education IB.

105. OPTIONAL PRACTICUM CREDIT
1 hour credit
Optional credit for supplementary oral and written exercise in the language laboratory or in workshop sessions to complement the work in GERM 101. **Prerequisite:** Registration in GERM 101 or permission of department chair. Two hours per week.

106. OPTIONAL PRACTICUM CREDIT
1 hour credit
Optional credit for supplementary oral and written exercise in
the language laboratory or in workshop sessions to complement the work done in GERM 102. Prerequisite: Registration in GERM 102 or permission of department chair. Two hours per week.

201. INTERMEDIATE GERMAN
3 hours credit
Continued development and refinement of language skills with emphasis on reading, writing and vocabulary development. Recommended Prerequisite: GERM 102 or at least two years of high school German. Three hours per week. Meets General Education IB.

202. INTERMEDIATE AND APPLIED GERMAN
3 hours credit
Continued development, refinement and application of language skills with emphasis on reading, writing and vocabulary development. Satisfies the language requirement for English majors. Recommended Prerequisite: GERM 201 or at least three years of high school German. Three hours per week. Meets General Education IB.

205. OPTIONAL PRACTICUM CREDIT
1 hour credit
Optional credit for supplementary oral and written exercise in the language laboratory or in workshop sessions to complement the work done in GERM 201. Prerequisite: Registration in GERM 201 or permission of department chair. Two hours per week.

206. OPTIONAL PRACTICUM CREDIT
1 hour credit
Optional credit for supplementary oral and written exercise in the language laboratory or in workshop sessions to complement the work done in GERM 202. Prerequisite: Registration in GERM 202 or permission of department chair. Two hours per week.

310. ORAL AND WRITTEN COMPOSITION
3 hours credit
Develops facility to sustain oral and written discussion in German. Students practice the basic patterns of German syntax and develop vocabulary by preparing frequent oral and written compositions. Recommended Prerequisite: GERM 202 or equivalent experience. Three hours per week.

312. GERMAN CONVERSATION
3 hours credit
Develops confidence and correctness in spoken German through practice in pronunciation, dialogues, discussions and oral reports and presentations. Recommended Prerequisite: GERM 202 or equivalent experience. Three hours per week.

350. GERMAN SHORT STORIES
3 hours credit
Survey of the German short story (Deutsche Novelle) from its inception in the 18th century to the present (in translation). Cross listed with ENGL 317. Taught in English. Prerequisite: C or better in ENGL 102. Three hours per week. Meets General Education IA.

496. GERMAN INDEPENDENT STUDY
1-3 hours credit
Individual study in any area of the language, culture or literature of the German-speaking world with the advice and direction from a member of the department. May be repeated with new content for a maximum of six credits. Prerequisites: Junior standing and permission of department chair.

HEALTH (HLTH)

101. BASIC HEALTH
3 hours credit
Factors involved in maintaining and improving personal health; analysis of individual health problems. Three hours per week.

102. FIRST AID AND SAFETY
1 hour credit
Introduction to basic information and skills required to administer care in emergency situations. Students may be certified in community CPR and first aid by the American Red Cross. May not receive credit for both HLTH 102 and 201. Two hours per week.

225. HEALTH BEHAVIOR
3 hours credit
Studies the effects of attitudes, emotions and perceptions on health behavior. Major topics include psychoneuroimmunology, the influence of emotions, social support, personality styles, spirituality, locus of control, self-esteem and perception of health. Prerequisite: PHEC 108. Three hours per week.

317. NUTRITION, HEALTH AND HUMAN PERFORMANCE
3 hours credit
Examines human metabolism in relation to health and human performance. Analysis of nutrient pathways from ingestion, digestion, absorption and utilization provides the foundation for an understanding of nutrition, weight control, eating disorders and thermoregulatory processes. Prerequisite: PHEC 108. Three hours per week.

350. ASSESSMENT AND EVALUATION OF HEALTH PROGRAMS
3 hours credit
Provides practical strategies for needs assessments for health education and promotion activities. Designed to inform students of individual and group dynamic assessments as well as single-step and multi-step surveys. Prerequisite: HLTH 101. Three hours per week.

361. SCHOOL HEALTH METHODS
3 hours credit
Provides preparation for public school teaching in areas such as sex education, drug use and abuse and other current health problems. Involves curriculum planning, methods and materials. May not receive credit for both HLTH 361 and EDUC 361. Prerequisite: Admission to Professional Teacher Education Program. Three hours per week.

401. COMMUNITY HEALTH
3 hours credit
Study of the factors involved in improving public health, including a survey of community health problems and resources and the role of the teacher in community health. Prerequisite: HLTH 101. Three hours per week.

410. STRESS AND STRESS MANAGEMENT
3 hours credit
Provides an understanding of the nature of the stress response and the practical application of stress management techniques. Major topics include the psychophysiology of stress, the role of stress in disease, social engineering, cognitive reappraisal and relaxation training. Useful for personal growth and professional application. Three hours per week. (Fall semester only)
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HISTORY (HIST)

101, 102. WORLD CIVILIZATIONS
3 hours credit each
Examination of global progress in major civilizations from prehistoric times to the present emphasizing the economic, social, cultural, intellectual and political trends motivating human beings. Three hours per week. Meets General Education IIB.

201, 202. HISTORY OF THE UNITED STATES
3 hours credit each
Survey of the political, economic, social and cultural factors that have shaped the pattern of life in the United States. Particular problems examined in the light of their sources and historical development. HIST 201 goes through 1865 and HIST 202 from 1865 to the present. Three hours per week. Meets General Education IIB.

210. INTRODUCTION TO WORLD RELIGIONS
3 hours credit
Introductory survey of the historical development of world religions. Specific examples drawn from such diverse cultural traditions as ancient Babylonian, Judeo-Christian, imperial Chinese and modern American religious movements. Fertility gods and spirits of nature, augury, omens, possession and prophecy are among the topics analyzed. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

213. INTRODUCTION TO GENDER STUDIES
3 hours credit
Examines the historic roots of gender studies, how various disciplines approach gender issues and how concepts of gender affect lives. May not be taken for credit if student has credit for IDSIS 213. Three hours per week. Meets General Education IIB.

215. TOPICS IN HISTORY
3 hours credit
Historical study of particular periods; groups; economic, intellectual and/or social movements; and institutions. May be taken twice under different course titles. Three hours per week. Meets General Education IIB.

224. HITLER AND THE THIRD REICH
3 hours credit
Examines the major causes, personalities, policies, events and significance of the Third Reich. Focuses on Hitler and the rise of the Nazi Party, the instabilities and collapse of the Weimar Republic, the Nazi “seizure of power,” the Nazi “racial state,” World War II in Europe, the Holocaust and the destruction and legacy of the Third Reich. Three hours per week. Meets General Education IIB.

225. HOLOCAUST: THE EXTERMINATION OF THE EUROPEAN JEWS
3 hours credit
Examination of European anti-Semitism from its origins to its culmination in the Holocaust; major emphasis on the treatment of Jews by Nazi Germany and on the reaction of Jews and the outside world to this treatment. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

300. THE HISTORIC ARCHAEOLOGY OF MARYLAND’S EASTERN SHORE
3 hours credit
Introduction to the theory and methodology of historic archaeology. Interdependence of documentary and archaeological evidence stressed. Examines material culture of the period 1600-1850 for the lower Eastern Shore region and relates developments within the region to the general themes influencing the Anglo-American community as a whole. Three hours per week. Meets General Education IIB.

301. HISTORY OF AMERICAN BUILDINGS
3 hours credit
Survey of the history of American building traditions, considering construction, form and style in historical, social, economic and cultural contexts. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

302. COLONIAL AND REVOLUTIONARY AMERICA (1607-1783)
3 hours credit
Detailed study of foundations of American civilization. Economic, political, social, cultural and religious factors are emphasized. Consideration of English policy and the revolution are included. Three hours per week. Meets General Education IIB.

3 hours credit
Covers such topics as the new government and its policies, nationalism and economic expansion, the common man and the new democracy, social ferment and reform movements, Manifest Destiny, wars and sectional crises. Prerequisites: HIST 201, 202. Three hours per week. Meets General Education IIB.

308. SECTIONAL CONFLICT AND CIVIL WAR
3 hours credit
Study of the origins, development and outcome of the struggle between the North and South to the end of the Civil War. Emphasis on the clash of national and sectional interests and the course of the military conflict to its conclusion. Three hours per week. Meets General Education IIB.

309. RECONSTRUCTION AND GILDED AGE
3 hours credit
Study of the policies and application of presidential and con-
301. HISTORY OF ENGLAND TO 1702
3 hours credit
Survey of England from Roman times through the reign ofWilliam and Mary emphasizing political, legal, economic, social and cultural institutions and trends. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

304. MEXICO IN THE 20TH CENTURY
3 hours credit
Study of the Mexican nation with special attention to the war for independence, Caudillo government, reform movement, the dictatorship of Porfirio Diaz and the Revolution of 1910. United States-Mexican diplomatic relations examined. Three hours per week. Meets General Education IIB.

310. HISTORY OF ENGLAND TO 1702
3 hours credit
Survey of England from Roman times through the reign of William and Mary emphasizing political, legal, economic, social and cultural institutions and trends. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

311. HISTORY OF ENGLAND AND GREAT BRITAIN, 1702 TO THE PRESENT
3 hours credit
Survey of England and Great Britain from the reign of Queen Anne to the present, emphasizing institutional growth and development, the expansion of the empire and Britain's rise to a major world power. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

312. HISTORY OF IRELAND IN MODERN TIMES
3 hours credit
Introduction to the cultural, political, economic and social growth and problems in Ireland since circa 1500. Emphasis is on the development of Ireland's nationalism, separate and distinct from Great Britain with which it was entwined and involved for so many generations. Attention focuses on the history and problems in Northern Ireland and its position in the United Kingdom. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

313. HISTORY OF THE ANCIENT NEAR EAST
3 hours credit
Survey of social, political and religious institutions of the ancient Mesopotamian civilizations of the Sumerians, Babylonians, Hebrews, Assyrians, Hittites and Dynastic Egypt, with emphasis on cultural contributions. Prerequisite: HIST 101. Three hours per week. Meets General Education IIB.

314. ROMAN HISTORY
3 hours credit
Portrays the rise of Rome from city-state to empire. Emphasis on social and cultural achievements from eighth century B.C. to fourth century A.D. Prerequisite: HIST 101. Three hours per week. Meets General Education IIB.

315. HISTORY OF THE EARLY CHRISTIAN CHURCH
3 hours credit
Traces the history of Christianity from its origins in Jerusalem to its full organization in the reign of the emperor Justinian. Focus on the rise of episcopal authority, the origins and popular appeal of monasticism and the early papacy. Includes selections from the New Testament, the church fathers of the East and Saint Augustine. Prerequisite: HIST 101. Three hours per week. Meets General Education IIB.

316. HISTORY OF MEDIEVAL EUROPE
3 hours credit
Survey of culture and institutions of eastern and western Europe from the Age of Constantine to the end of the Hundred Years' War and the fall of Constantinople to the Turks. Prerequisite: HIST 101. Three hours per week. Meets General Education IIB.

317. RENAISSANCE TO REVOLUTION (1450-1815)
3 hours credit
European developments from the Age of Exploration through the French Revolution, emphasizing the development of early nationalism, absolutism, colonialism, capitalism, the middle classes, religious wars, cultural change and scientific thought. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.
340. HISTORY OF AFRICA TO 1870  
3 hours credit  
Development of indigenous political and social institutions leading to the formation of states and empires. The slave trade and the onset of European imperialism emphasized. **Prerequisites:** HIST 101, 102. Three hours per week. **Meets General Education IIB.**

341. HISTORY OF AFRICA: 1870-PRESENT  
3 hours credit  
Emphasizes the history and politics of imperialism from the "scramble" for Africa to decolonization. Emphasis on the interaction of African and European institutions. **Prerequisites:** HIST 101, 102. Three hours per week. **Meets General Education IIB.**

342. HISTORY OF INDIA TO 1857  
3 hours credit  
Study of the early political, social, cultural and religious history of the Indian subcontinent until 1857. Focus is on the development of Indian institutions, the rise of Hinduism and Buddhism, the Mauryan, Gupta and Mughal empires, and the arrival of Europeans. **Prerequisite:** HIST 101. Three hours per week. **Meets General Education IIB.**

343. HISTORY OF INDIA: 1857 TO PRESENT  
3 hours credit  
Study of political, social and cultural history of India from the mid-19th century to the present. Emphasis on the period of British rule, growth of Indian nationalism and the emergence of independent India and Pakistan. **Prerequisite:** HIST 102. **Three hours per week. Meets General Education IIB.**

350. THE MIDDLE EAST TO 1800  
3 hours credit  
Survey of the political, social and economical history of the Middle East from the rule of Islam to the 19th century. Emphasis on the rise and decline of the Arab Caliphs, Persia and the Ottomans. **Prerequisite:** HIST 101. **Three hours per week. Meets General Education IIB.**

355. THE MIDDLE EAST SINCE 1800  
3 hours credit  
History of the strategic region from the beginnings of nationalism through the fall of the Ottoman Empire to the current existence of independent states. Emphasis on the historical understanding of the modern situation. **Prerequisite:** HIST 101. **Three hours per week. Meets General Education IIB.**

360. CHINESE CIVILIZATION  
3 hours credit  
Chinese civilization from its origins in the Bronze Age to the rise of nationalism and communism in the 20th century. Attention divided equally between political and cultural history, emphasizing the development of traditional institutions in Chinese society, as well as art, literature, religion and philosophy. **Three hours per week. Meets General Education IIB.**

362. JAPANESE CIVILIZATION  
3 hours credit  
Japanese culture and political development from the Familial Age to the present. Equal emphasis on politics, economics, art and architecture, drama and literature, philosophy, and religion as persistent and evolving traditions. **Three hours per week. Meets General Education IIB.**

364. MODERN JAPAN  
3 hours credit  
Economic, social, cultural and political study of the evolution of Japan from a traditional, isolated and closed society to a Westernized superpower. Emphasis on the 19th and 20th centuries. **Prerequisite:** HIST 102. **Three hours per week. Meets General Education IIB.**

370. GREEK HISTORY  
3 hours credit  
Historical survey of classical Greek civilization, including political, socioeconomic and religious institutions. Particular emphasis on cultural and artistic aspects of Hellenic civilization. **Prerequisite:** HIST 101. **Three hours per week. Meets General Education IIB.**

371. INTRODUCTION TO CLASSICAL MYTHOLOGY  
3 hours credit  
Introduces the student to major figures in classical Greek and Roman mythology and demonstrates the interconnectedness of classical mythology and history from ancient times until the present. A general knowledge of classical mythology is indispensable for an understanding of social and political history of both the ancient and modern worlds. Also, without this knowledge, much of literature and art, past and present, would remain unintelligible. **Prerequisite:** HIST 101. **Three hours per week. Meets General Education IIB.**

375. TOPICS IN AMERICAN STUDIES  
3 hours credit  
Historical study of a particular aspect of American society and culture. May be taken twice under different course titles. **Three hours per week. Meets General Education IIB.**

376. VIOLENCE AND NONVIOLENCE IN AMERICA  
3 hours credit  
Explores the paradoxical history of violence and nonviolence in America through lectures, readings and films. **Prerequisites:** HIST 101, 102. **Three hours per week.**

377. WOMEN IN EARLY AMERICAN HISTORY  
3 hours credit  
Examines the role of women in U.S. history from Colonial times to 1890, with particular attention to the family and to traditional politics, economic and cultural institutions. **Prerequisite:** HIST 102. **Three hours per week. Meets General Education IIB.**

378. WOMEN IN MODERN AMERICA  
3 hours credit  
Charts the course of the women’s movement in 20th-century America, examining the relationship between organized feminism and changes in public and private lives of women from different class, racial and ethnic backgrounds. **Prerequisite:** HIST 102. **Three hours per week. Meets General Education IIB.**

379. WOMEN AND FAMILY IN EUROPE AND THE UNITED STATES  
3 hours credit  
Explores a variety of themes in the history of women and the family during the 19th and 20th centuries. Themes studied include women and religion, middle-class female values, the working-class experience, feminism, and gender roles in various political and cultural contexts. **Prerequisite:** HIST 102. **Three hours per week. Meets General Education IIB.**

380. THE AMERICAN MILITARY EXPERIENCE  
3 hours credit  
Military history enables students to understand better the role played by the armed forces in American society today through a study of the origins and development of military institutions, traditions and practices in the United States, 1775 to the present. **Three hours per week. Meets General Education IIB.**

382. AMERICAN RELIGIOUS HISTORY  
3 hours credit  
Survey of religious developments in America from pre-European settlement to the 20th century. Special attention to relationships among social, cultural and religious changes. **Prerequisites:** HIST 101, 102. **Three hours per week. Meets General Education IIB.**
383. HISTORY OF AMERICAN ENTERPRISE
3 hours credit
Study of the development of the American entrepreneurial spirit and its influence on culture, society, and politics from the European heritage to the present. Three hours per week. Meets General Education IIB.

384. NATIVE AMERICAN HISTORY
3 hours credit
Explores Native American history before contact with Europeans, through struggles with the emerging new nation, forced reservations and Indian activism, to current status of tribal members. Examines the political, economic, social, and cultural aspects of Native Americans. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

386. WILDERNESS AND U.S. CULTURE, 1492-PRESENT
3 hours credit
Study of historical factors that contributed to attitudes toward wilderness and preservation efforts. Particular emphasis on American thought with special attention to Thoreau, Cole, Muir and Leopold. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

387. RACISM AND DISCRIMINATION
3 hours credit
Multiperspective historical examination of the nature, origins and growth of racism and discrimination in America, with particular emphasis on the 20th century. Prerequisites: HIST 201, 202. Three hours per week.

388. CIVIL RIGHTS IN AMERICAN HISTORY
3 hours credit
History of civil rights in America from the colonial period to the present; emphasis on the application of civil rights legislation to African-Americans and Indians and expansion to include women and others. Prerequisites: HIST 201, 202. Three hours per week.

389. U.S. ENVIRONMENTAL HISTORY
3 hours credit
History of rural and urban land use. Topics include the rise of the public lands movement and environmentalism in the United States, the history of ecology and the cultural roots of the modern environmental crisis. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

390. STUDIES IN WESTERN EUROPE
3 hours credit
Focused study on particular periods, places, trends or problems in Western Europe. May be taken twice under different course titles. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

392. GLOBAL ENVIRONMENTAL HISTORY
3 hours credit
Whether one is discussing the Chernobyl disaster, the crab fishery in Maryland or global warming, the problems, as well as the proposed solutions, of contemporary environmentalism are all couched in international terms. As such, environmentalism is at the center of 20th century debates about the limits of the nation-state. The emergence of this contemporary international environmentalism, is closely linked to the history of the modern world. Topics ranging from the Industrial Revolution, European expansion and colonialism, to revolt, nationalism and the politics of the Cold War will be examined. Although the roots of current environmental politics will be discussed, the course will focus on the recent past, from the 1880s to the present, and on the challenges to modernity posed by environmental change. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

395. MATERIAL CULTURE STUDIES IN AMERICAN HISTORY
3 hours credit
Introduction to the specialized study of the American past through examination of cultural artifacts and documents relating to them. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

399. INTERNATIONAL FIELD STUDY
3-6 hours credit
On-site study of the geography, history and culture of selected countries. Work in the field preceded by pre-tour lectures. May be taken twice for credit under different subtitles. Prerequisite: Permission of instructor. Meets General Education IIB.

400. HISTORY OF MARYLAND
3 hours credit
Study of Maryland history and government from the colonial period to present. Places special stress on the leaders, institutions and contributions made in Maryland and by Maryland to the nation. Three hours per week. Meets General Education IIB.

401. HISTORY OF U.S. FOREIGN RELATIONS
3 hours credit
Historical study of U.S. foreign relations from independence to the present, focusing on the global impact of the nation as an economic, cultural, political and military superpower. Prerequisite: HIST 102. Three hours per week.

405. THE UNITED STATES IN THE 20TH CENTURY I
3 hours credit
Progressivism to 1945. Study of the major political, diplomatic, economic, intellectual and social forces that shaped America during the first part of the 20th century, including the Progressive Movement, World War I, Roaring '20s, Great Depression and World War II. Three hours per week.

406. THE UNITED STATES IN THE 20TH CENTURY II
3 hours credit
U.S. history from 1945 to 2000. Study of the major diplomatic, economic, intellectual and social forces that shaped America in the years following World War II, including the Cold War, Civil Rights Movement, tumultuous 1960s, and trends in the 1970s, 1980s and 1990s. Three hours per week.

407. THE WESTWARD MOVEMENT
3 hours credit
Study of the westward movement from the Atlantic to the Trans-Allegheny and Trans-Mississippi West, with emphasis upon the influence of the frontiers in shaping American civilization. Three hours per week. Meets General Education IIB.

408. HISTORY OF THE SOUTH
3 hours credit
History of the South from the colonial period to the present, covering developments in politics, economics, culture and society. Three hours per week. Meets General Education IIB.

412. 413. SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES I AND II
3 hours credit each
Studies of American thought as reflected by the people and leaders. Development of American heritage from the colonial period to the present, emphasizing the intellectual, social, religious and economic movements. The first course covers from the colonial period to reconstruction and the second course from about 1876 to present. Three hours per week. Meets General Education IIB.
415. HISTORY AND FILM
3 hours credit
Examines the impact of film on the study and understanding of history. Includes a study of how film has been used to portray 20th century events, how it has captured major events on film and how its power can be used to manipulate public opinion. Documentaries, narrative films and scholarly works will be used as resources. Prerequisite: HIST 101, 102. Three hours per week. Meets General Education requirement IIB.

417. HISTORY OF SCIENCE AND TECHNOLOGY
3 hours credit
Survey of evolution of scientific achievements and technology in the Western world, with particular emphasis on the cultural, economic and social implications of these developments. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education requirement IIB.

421. EUROPE IN THE 20TH CENTURY WORLD
3 hours credit
Study of the economic, social, intellectual and political development of Europe, viewed in the context of world wars, depression and conflicting political ideologies, showing the decline of European dominance and the rise of America and Asia. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

423. IMPERIAL RUSSIA
3 hours credit
Study of the Russia empire from Peter the Great to the 1917 revolution focusing on the political, economic and social developments, Russia's expansion and the conditions that led to revolution. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

424. MODERN RUSSIA
3 hours credit
Survey of the 20th century Russia and the Soviet Union, emphasizing the growth to global power, continuity and change, and the inherent problems that led to Soviet collapse and the rise of a new Russia. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

430. READINGS IN HISTORY
3 hours credit
Readings course for students who have achieved above average in at least 18 hours of history courses. May be taken twice under different course titles. Prerequisite: Permission of department chair. Three hours per week. Meets General Education IIB.

433. HISTORY OF TUDOR-STUART BRITAIN
3 hours credit
History of Tudor and Stuart Britain, 1485-1707. Surveys the dramatic period of the 16th and 17th centuries in England and the turning point between medieval and modern worlds. Course examines the Reformation, the rise of Parliament, the English Civil Wars, the emergence of Great Britain and the English Renaissance. Prerequisites: HIST 101, 102. Three hours per week. Meets General Education IIB.

435. SENIOR THESIS
3 hours credit
Individual research and preparation of a thesis by history majors. Prerequisite: Permission of department chair. Three hours per week.

438. AMERICA IN THE GREAT DEPRESSION
3 hours credit
The songs “Brother Can You Spare a Dime” and “Happy Days Are Here Again” caught the despair and hope of Americans during the 1930s. This course considers American society, politics and culture during the 1930s. The first half explores the Crash of 1929, the social impact of the Depression, and the effectiveness of the Hoover and Roosevelt administra-

440. MINORITY GROUPS IN UNITED STATES HISTORY
3 hours credit
Attention to the role and contribution of minority groups in general, with special emphasis on some of the larger and older minority groups. Three hours per week. Meets General Education IIB.

444. AFRICAN-AMERICAN HISTORY TO 1865
3 hours credit
Explores African-American history from the Colonial period to 1865. Focuses on the beginnings of enslavement, the development of the slavery institution and the role of African-Americans in the Civil War. Prerequisite: HIST 201. Three hours per week. Meets General Education IIB.

445. AFRICAN-AMERICAN HISTORY FROM 1865
3 hours credit
Explores African-American history from 1865 to present. Focuses on the struggle for acceptance, patterns of discrimination and current challenges. Prerequisite: HIST 202. Three hours per week. Meets General Education IIB.

446. READINGS IN AFRICAN-AMERICAN HISTORY
3 hours credit
Introduction to past and current literature on African-Americans from 1619 to the present. Students critique, evaluate and discuss readings that depict various facets of the African experience in America. Prerequisite: HIST 202. Three hours per week.

451. WORLD WAR I
3 hours credit
Study of the events that occurred during World War I, from the assassination of Franz Ferdinand at Sarajevo to the peace of 1919. Emphasis on political developments, social and intellectual implications of the war, and its significance in shaping the 20th century. May not receive credit for both HIST 381 and HIST 451. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

452. THE SECOND WORLD WAR: A GLOBAL HISTORY
3 hours credit
The Second World War has shaped the contemporary world as no other 20th century event has. Through discussion and study of texts and film, this course examines the global political, military and economic aspects of the conflict as well as its social and cultural impact. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.

453. THE COLD WAR: A GLOBAL HISTORY
3 hours credit
After 1945 the fierce rivalry between the United States and the Soviet Union threatened the world with nuclear destruction and dominated global politics for almost 50 years. This course examines the political and cultural impact of the Cold War on the United States, Europe and the developing world. Prerequisite: HIST 102. Three hours per week. Meets General Education requirement IIB.

460. HISTORY OF CHINA SINCE 1800
3 hours credit
The revolutionary transformation of China from the 19th century to the present, with emphasis on the impact of imperialism, the profound effects of Western technology and foreign policy wrought by the history of its relations with the West. Prerequisite: HIST 102. Three hours per week. Meets General Education IIB.
470. HISTORY OF THE EARLY ROMAN EMPIRE
3 hours credit
Study of particular institutions and movements in Roman his-
tory. Emphasis on family history and social and religious
trends during the early imperial period of Roman history.
Prerequisite: HIST 101. Three hours per week. Meets General Education II B.

471. BRONZE AGE AEGEAN
3 hours credit
Study of the Bronze Age Aegean archaeology of the Minoan,
Mycenaeans and Trojan civilizations. Prerequisite: HIST 101.
Three hours per week. Meets General Education II B.

472. STUDIES IN CLASSICAL ARCHAEOLOGY
3 hours credit
Assorted topics and archaeological sites of the ancient
Mediterranean world (Crete, Greece and Italy). May be taken
twice under different subtitles. Prerequisite: HIST 101.
Three hours per week. Meets General Education II B.

473. ROMAN ARCHAEOLOGY
3 hours credit
Study of Roman archaeology from the early Iron Age through
the Republican and Imperial periods. Prerequisite: HIST
101. Three hours per week. Meets General Education II B.

474. HISTORY OF ANCIENT EGYPT
3 hours credit
Intensive study of three eras of Egyptian history: the Pyramid
Age, the chaotic Middle Kingdom and New Kingdom
Absolutism. Emphasis on cultural, religious and artistic contri-
butions. Prerequisite: HIST 101. Three hours per week.
Meets General Education II B.

475. GREEK ARCHAEOLOGY
3 hours credit
Study of Greek archaeology from the Protogeometric and
Archaic periods through the Classical (Hellenic) and
Hellenistic eras. Prerequisite: HIST 101. Three hours per
week. Meets General Education II B.

476. ANCIENT MILITARY HISTORY
3 hours credit
Explores the history of the great battles and campaigns of
antiquity. Emphasis is placed on developments in strategy
and tactics, the lives of the men in the ranks, the careers of
leaders, and the decisive nature of these conflicts on the
course of history. Special attention is given to the interaction
between military realities and the functioning of society as a
whole. Prerequisite: HIST 101. Three hours per week.
Meets General Education II B.

477. MEDIEVAL MILITARY HISTORY
3 hours credit
Explores the military history of the medieval world from the
fall of the Roman Empire in the fourth century A.D. and the
establishment of the Germanic kingdoms to the decline of the
supremacy of mounted warrior at the beginning of the sixth
century. Students will be encouraged to understand the rela-
tionship between military realities and the social structure of
medieval societies. The course will also outline the strategy
and tactics used by medieval armies, how these tactics
affected the lives of populations and how new developments
in these fields led to the creation of nation-states in the early
modern period. Time will also be spent studying the ideas of
the period through the lives of some of the medieval world's
greatest soldiers, statesmen, philosophers and historians.
Prerequisite: HIST 101. Three hours per week. Meets General Education II B.

480. MUSEUM STUDIES
3 hours credit
Work experience course that invites students to learn tech-
niques of museology. Students work in cooperation with vari-
ous local or regional museums under the supervision and
direction of a museum curator. May be taken twice with the
permission of the instructor. Prerequisite: Written approval of
department chair to register. Three hours per week. Meets General Education II B.

483. ENVIRONMENTAL HISTORY OF DELMARVA
3 hours credit
Through class discussions, students will gain an understand-
ing of the natural history of Delmarva and Chesapeake,
the changing patterns of land and resource use, environmental
conflicts, the growth of 20th century conservation efforts and
the implication of burgeoning growth in the Eastern metropol-
itan corridor of Delmarva. This course draws upon the
resources of the Salisbury area through local speakers, envi-
ronmental activists, foresters, authors and farmers. The
course will utilize: the Ward Museum of Wildfowl Art, the
Nanticoke Indian Museum, Furnace Town, Wye Island
NWMA, Pemberton Park, and Crisfield and Smith islands.
Research paper is required. Prerequisites: HIST 101, 102.
Three hours per week. Meets General Education II B.

490. STUDIES IN HISTORY
3 hours credit
Intensive historical study of particular periods and groups,
economic, intellectual, cultural, social movements and/or
institutions. May be taken twice under different course titles.
Three hours per week. Meets General Education II B.

496. INDEPENDENT STUDY/HISTORIOGRAPHY
3 hours credit
Advanced students will read in depth on a chosen subject
under the guidance of a faculty mentor. Focus is on second-
ary sources to gain understanding of the range of historical
interpretations on a given subject. Prerequisite: HIST 330 or
permission of instructor and department chair.

497. UNDERGRADUATE RESEARCH
3 hours credit
Research opportunity for advanced students of history to
reconstruct aspects of the past using primary documentation
under the guidance of a faculty member knowledgeable of the
chosen subject. Prerequisites: HIST 330 and permission of
instructor or department chair.

498. INTERNSHIP
3 hours credit
This course is intended to provide advanced undergraduate
history majors with the opportunity to gain professional expe-
rience in a history-related field under the supervision of an on-
site professional and a faculty member. Open to juniors and
seniors, it offers excellent preparation for professional devel-
oment in history related fields or for graduate study.
Prerequisites: HIST 330 and permission from instructor or
department chair. Three hours per week.

499. HONORS
3 hours credit
Independent study, research and conferences undertaken by
history majors for departmental honors at the invitation of the
department. May not be taken on a pass/no credit basis.
Prerequisites: Approval of department, 21 hours of course-
work in history including HIST 330, minimum 3.5 average in
history.

500. HISTORY OF MARYLAND
3 hours credit
Study of Maryland history and government from the colonial
period to present. Places special stress on the leaders, insti-
tutions and contributions made in Maryland and by Maryland
in the nation. Three hours per week.

511. THE UNITED STATES IN THE 20TH CENTURY I
3 hours credit
Progressivism to 1945. Study of the major political, diplomat-
ic, economic, intellectual and social forces that shaped America during the first part of the 20th century, including the Progressive Movement, World War I, Roaring '20s, Great Depression and World War II. Three hours per week.

513. THE UNITED STATES IN THE 20TH CENTURY II
3 hours credit
U.S. history from 1945 to 2000. Study of the major diplomatic, economic, intellectual and social forces that shaped America in the years following World War II, including the Cold War, Civil Rights Movement, tumultuous 1960s, and trends in the 1970s, 1980s and 1990s. Three hours per week.

514. THE WESTWARD MOVEMENT
3 hours credit
Study of the westward movement from the Atlantic to the Trans-Allegheny and Trans-Mississippi West, with emphasis upon the influence of the frontiers in shaping American civilization. Three hours per week.

515. HISTORY AND FILM
3 hours credit
Examines the impact of film on the study and understanding of history. Includes a study of how film has been used to portray 20th century events, how it has captured major events on film and how its power can be used to manipulate public opinion. Documentaries, narrative films and scholarly works will be used as resources. Three hours per week.

516. HISTORY OF THE SOUTH
3 hours credit
History of the South from the colonial period to the present, covering developments in politics, economics, culture and society. Three hours per week.

517. HISTORY OF SCIENCE AND TECHNOLOGY
3 hours credit
Survey of evolution of scientific achievements and technology in the Western world, with particular emphasis on the cultural, economic and social implications of these developments. Three hours per week.

518, 519. SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES I AND II
3 hours credit each
Studies of American thought as reflected by the people and leaders. Development of American heritage from the colonial period to the present, emphasizing the intellectual, social, religious and economic movements. The first course covers from the colonial period to reconstruction and the second course from about 1876 to present. Three hours per week.

521. EUROPE IN THE 20TH CENTURY WORLD
3 hours credit
Study of the economic, social, intellectual and political development of Europe, viewed in the context of world wars, depression and conflicting political ideologies, showing the decline of European dominance and the rise of America and Asia. Three hours per week.

523. IMPERIAL RUSSIA
3 hours credit
Study of the Russia empire from Peter the Great to the 1917 revolution focusing on the political, economic and social developments. Russia's expansion and the conditions that led to revolution. Three hours per week.

524. MODERN RUSSIA
3 hours credit
Survey of the 20th century Russia and the Soviet Union, emphasizing the growth to global power, continuity and change, and the inherent problems that led to Soviet collapse and the rise of a new Russia. Three hours per week.

525. HISTORY OF U.S. FOREIGN RELATIONS
3 hours credit
Historical study of U.S. foreign relations from independence to the present, focusing on the global impact of the nation as an economic, cultural, political and military superpower. Three hours per week.

533. HISTORY OF TUDOR-STUART BRITAIN
3 hours credit
History of Tudor and Stuart Britain, 1485-1707. Surveys the dramatic period of the 16th and 17th centuries in England and the turning point between medieval and modern worlds. Course examines the Reformation, the rise of Parliament, the English Civil Wars, the emergence of Great Britain and the English Renaissance. Three hours per week.

538. AMERICA IN THE GREAT DEPRESSION
3 hours credit
The songs "Brother Can You Spare a Dime" and "Happy Days Are Here Again" caught the despair and hope of Americans during the 1930s. This course considers American society, politics and culture during the 1930s. The first half explores the Crash of 1929, the social impact of the Depression, and the effectiveness of the Hoover and Roosevelt administrations in handling the national emergency. The second half explores aspects of the New Deal era: the experience of minorities, women and workers, the arts and popular culture. Three hours per week.

540. MINORITY GROUPS IN UNITED STATES HISTORY
3 hours credit
Attention to the role and contribution of minority groups in general, with special emphasis on some of the larger and older minority groups. Three hours per week.

544. AFRICAN-AMERICAN HISTORY TO 1865
3 hours credit
Explores African-American history from the colonial period to 1865. Focuses on the beginnings of enslavement, the development of the slavery institution and the role of African-Americans in the Civil War. Three hours per week.

545. AFRICAN-AMERICAN HISTORY FROM 1865
3 hours credit
Explores African-American history from 1865 to present. Focuses on the struggle for acceptance, patterns of discrimination and current challenges. Three hours per week.

551. WORLD WAR I
3 hours credit
Study of the events that occurred during World War I, from the assassination of Franz Ferdinand at Sarajevo to the peace of 1919. Emphasis on political developments, social and intellectual implications of the war, and its significance in shaping the 20th century. Three hours per week.

552. THE SECOND WORLD WAR: A GLOBAL HISTORY
3 hours credit
The Second World War has shaped the contemporary world as no other 20th century event has. Through discussion and study of texts and film, this course examines the global political, military and economic aspects of the conflict as well as its social and cultural impact. Three hours per week.

553. THE COLD WAR: A GLOBAL HISTORY
3 hours credit
After 1945 the fierce rivalry between the United States and the Soviet Union threatened the world with nuclear destruction and dominated global politics for almost 50 years. This course examines the political and cultural impact of the Cold War on the United States, Europe and the developing world. Three hours per week.
560. HISTORY OF CHINA SINCE 1800  
3 hours credit  
The revolutionary transformation of China from the 19th century to the present, with emphasis on the impact of imperialism, the profound effects of Western technology and foreign policy wrought by the history of its relations with the West.  
Three hours per week.

570. HISTORY OF THE EARLY ROMAN EMPIRE  
3 hours credit  
Study of particular institutions and movements in Roman history. Emphasis on family history and social and religious trends during the early imperial period of Roman history.  
Three hours per week.

571. BRONZE AGE AEGEAN  
3 hours credit  
Study of the Bronze Age Aegean archaeology of the Minoan, Mycenaean and Trojan civilizations.  
Three hours per week.

572. STUDIES IN CLASSICAL ARCHAEOLOGY  
3 hours credit  
Assorted topics and archaeological sites of the ancient Mediterranean world (Crete, Greece and Italy). May be taken twice under different subtitles.  
Three hours per week.

573. ROMAN ARCHAEOLOGY  
3 hours credit  
Study of Roman archaeology from the early Iron Age through the Republican and Imperial periods.  
Three hours per week.

574. HISTORY OF ANCIENT EGYPT  
3 hours credit  
Intensive study of three eras of Egyptian history: the Pyramid Age, the chaotic Middle Kingdom and New Kingdom Absolutism. Emphasis on cultural, religious and artistic contributions.  
Three hours per week.

575. GREEK ARCHAEOLOGY  
3 hours credit  
Study of Greek archaeology from the Protogeometric and Archaic periods through the Classical (Hellenic) and Hellenistic eras.  
Three hours per week.

578. ANCIENT MILITARY HISTORY  
3 hours credit  
Explores the history of the great battles and campaigns of antiquity. Emphasis is placed on developments in strategy and tactics, the lives of the men in the ranks, the careers of leaders, and the decisive nature of these conflicts on the course of history. Special attention is given to the interaction between military realities and the functioning of society as a whole.  
Three hours per week.

579. MEDIEVAL MILITARY HISTORY  
3 hours credit  
Explores the military history of the medieval world from the fall of the Roman Empire in the fourth century A.D. and the establishment of the Germanic kingdoms to the decline of the supremacy of mounted warrior at the beginning of the sixth century. Students will be encouraged to understand the relationship between military realities and the social structure of medieval societies. The course will also outline the strategy and tactics used by medieval armies, how these tactics affected the lives of populations and how new developments in these fields led to the creation of nation-states in the early modern period. Time will also be spent studying the ideas of the period through the lives of some of the medieval world’s greatest soldiers, statesmen, philosophers and historians.  
Three hours per week.

580. MUSEUM STUDIES  
3 hours credit  
Work experience course that invites students to learn techniques of museology. Students work in cooperation with various local or regional museums under the supervision and direction of a museum curator. May be taken twice with the permission of the instructor.  
Three hours per week.

583. ENVIRONMENTAL HISTORY OF DELMARVA  
3 hours credit  
Through class discussions, students will gain an understanding of: the natural history of Delmarva and Chesapeake, the changing patterns of land and resource use, environmental conflicts, the growth of 20th century conservation efforts and the implication of burgeoning growth in the Eastern metropolitan corridor of Delmarva. This course draws upon the resources of the Salisbury area through local speakers, environmental activists, foresters, authors and farmers. The course will utilize: the Ward Museum of Wildfowl Art, the Nanticoke Indian Museum, Furnace Town, Wye Island NWMA, Pemberton Park, and Crisfield and Smith islands. Research paper is required.  
Three hours per week.

590. STUDIES IN HISTORY  
3 hours credit  
Intensive historical study of particular periods and groups, economic, intellectual, cultural, social movements and/or institutions. May be taken twice under different course titles.  
Three hours per week.

601. METHODS OF HISTORICAL RESEARCH  
3 hours credit  
Students will examine first hand the vast original documentation relating to the Lower Delmarva Peninsula at the Nabb Research Center and what sort of social, political, educational, economic, religious or cultural material(s) may be included in each record type. Familiarity with 17th and 18th century language and handwriting (similar to learning a foreign language) must also be included to understand the documents. Research and interpretation will focus on creating a more complete picture of what life was like during the century after the initial settlement of the Lower Eastern Shore area. May be taken only once.  
Three hours per week.

602. SEMINAR: COLONIAL AND REVOLUTIONARY AMERICA  
3 hours credit  
A study of Colonial institutions and the American Revolutionary movement. Emphasis is placed upon the study of specific topics through individual research projects. May be taken twice under different course subtitles.  
Three hours per week.

603. SEMINAR IN 19TH CENTURY AMERICA  
3 hours credit  
An opportunity to explore in-depth 19th century American society, via themes selected by the instructor. May be taken twice under different course subtitles.  
Three hours per week.

604. SEMINAR IN EUROPEAN HISTORY  
3 hours credit  
Designed to enable the student to explore, through intensive research, basic problems in European history. The period or topics to be studied will be selected by the instructor. May be taken twice under different course subtitles.  
Three hours per week.

605. SEMINAR: MARYLAND HISTORY  
3 hours credit  
Designed to acquaint students, through readings and research, with some of the major problems and developments in the history of Maryland. May be taken twice under different course subtitles.  
Three hours per week.

606. SEMINAR IN 20TH CENTURY AMERICA  
3 hours credit  
Enables intensive exploration of specific periods and/or problems in this century through individual research. May be
taken twice under different course subtitles. **Three hours per week.**

607. SEMINAR IN CHESAPEAKE AND MIDDLE ATLANTIC HISTORY

**3 hours credit**

Intensive seminar exploring comparative facets of Chesapeake history (economic, social, cultural, religious and political) in Maryland, Virginia, Delaware, New Jersey, Pennsylvania and New York. The impact of the Chesapeake area (and Delmarva) within the broader context of the Middle Atlantic community will be understood. May be taken twice under different subtitles. **Three hours per week.**

608. SEMINAR IN AMERICAN DIPLOMACY

**3 hours credit**

Permits investigation, through reading and research, of selected problems in the history of American diplomacy. May be taken twice under different course subtitles. **Three hours per week.**

609. STUDIES IN EARLY DELMARVA

**3 hours credit**

Intensive seminar which explores life on early Colonial Delmarva through examination of primary records of the Lower Eastern Shore including settlers, settlement patterns, and social and familial networks. In-depth analysis will result in the reconstruction of this Eastern Shore social and economic world. May be taken twice under different subtitles. **Three hours per week.**

610. SEMINAR IN LATIN AMERICAN HISTORY

**3 hours credit**

An intensive study of major institutions and specific periods in Latin America through reading and research. May be taken twice under different course subtitles. **Three hours per week.**

612. SPECIAL TOPICS SEMINAR

**3 hours credit**

An intensive readings or research course on a special topic selected by the instructor. May be taken twice under different course subtitles. **Three hours per week.**

613. SEMINAR IN ANCIENT HISTORY

**3 hours credit**

An intensive seminar exploring ancient civilizations such as Greece, Rome, Egypt and the Near East as selected by the instructor. May be taken twice under different course subtitles. **Three hours per week.**

614. SEMINAR IN ASIAN HISTORY

**3 hours credit**

An intensive seminar exploring in-depth Asian societies via themes selected by the instructor. May be taken twice under different course subtitles. **Three hours per week.**

615. SEMINAR IN AFRICAN HISTORY

**3 hours credit**

An in-depth study of specific topics in African history as selected by the instructor. May be taken twice under different course subtitles. **Three hours per week.**

629. INDIVIDUAL RESEARCH/HISTORIOGRAPHY

**3 hours credit**

Specialized historiography and/or research course for graduate students (either thesis or non-thesis options). May be taken only once. **Prerequisite:** Permission of the graduate director. **Three hours per week.**

630. DIRECTED RESEARCH

**3 hours credit**

Preparation of optional research project in master’s degree program under departmental supervision. **Prerequisites:** May be taken only once and only in conjunction with HIST 607. **Three hours per week.**

631. THESIS

**3 hours credit**

May be taken only once and may be taken without HIST 630. **Prerequisite:** Permission of the graduate director.

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**HONORS (HONR)**

111. HONORS CORE I: CRITICAL THINKING AND WRITING

**3 hours credit**

Processes for developing and supporting beliefs with clear, unambiguous arguments and for evaluating the soundness of these arguments. Practice in reasoning, presentation of sound arguments in oral and written form, and analysis of the use of language to influence thought. May not receive credit for both IDIS III and HONR 111. **Prerequisite:** Admission to the Honors Program. **Three hours per week. Meets General Education IA for ENGL 101.**

112. HONORS CORE II: ISSUES IN THE SOCIAL SCIENCES

**3 hours credit**

Designed to introduce students to enduring and pertinent issues in the social sciences and to teach students ways of reflecting upon these issues, critically examining them and, where necessary, challenging them by means of critical thinking, questioning, argumentation and debate. Students will learn not only what social scientists think, write and argue about, but how they do these things—their methods and underlying assumptions. May not receive credit for both IDIS 112 and HONR 112. **Prerequisite:** Admission to the Honors Program. **Three hours per week. Meets General Education IIB.**

211. HONORS CORE III: ISSUES IN THE HUMANITIES

**3 hours credit**

Designed to introduce students to enduring and pertinent issues in the humanities and to teach them ways of reflecting upon these issues, critically examining them and, where necessary, challenging them by means of critical thinking, questioning, argumentation and debate. Students will learn not only what scholars think, write and argue about, but how they do these things—their methods and underlying assumptions. May not receive credit for both IDIS 211 and HONR 211. **Prerequisite:** Admission to the Honors Program. **Three hours per week. Meets General Education IIB.**

212. HONORS CORE IV: ISSUES IN THE NATURAL SCIENCES

**3 hours credit**

Designed to introduce students to enduring and pertinent issues in the natural sciences and to teach them ways of reflecting upon these issues, critically examining them and, where necessary, challenging them by means of critical thinking, questioning, argumentation and debate. Students will learn not only what scientists think, write and argue about, but how they do these things—their methods and underlying assumptions. May not receive credit for both IDIS 212 and HONR 212. **Prerequisite:** Admission to the Honors Program. **Three hours per week. Meets General Education IIB.**

311. HONORS INTERDISCIPLINARY SEMINAR

**3 hours credit**

Examines an interdisciplinary topic of broad scope and significance. Open to all Honors students; required for those intending to graduate with either Bellavance Honors or Bellavance Honors with Distinction. May be repeated under different topics. **Prerequisites:** Sophomore standing, permission of Honors director. **Three hours per week.**
312. JUNIOR YEAR HONORS
RESEARCH/CREATIVE PROJECT
1 hour credit
Hons students intending to graduate with either Bellavance Honors or Bellavance Honors with Distinction will complete a research or creative project in a 300-400 level course of their choosing (does not have to be an honors course) in their junior year. Students will present research or creative project at one of the symposia available for such presentations. This one-credit, pass/fail course enables the honors director to monitor the progress of student work. Prerequisite: Admission to Honors Program. One hour per week. (P/F)

490. HONORS THESIS PREPARATION
1 hour credit
Taken in the semester preceding the writing of an Honors thesis. Students select a thesis mentor and committee, do preliminary research on their subject and write a prospectus approved by their thesis committee. Required for students intending to graduate with Bellavance Honors or Bellavance Honors with Distinction. Prerequisite: Completion of the Honors core curriculum. One hour per week. (P/F)

495. HONORS SENIOR THESIS
3 hours credit
Thesis in major field of study. Required for students intending to graduate Bellavance Honors or Bellavance Honors with Distinction. Prerequisite: IDS 490. Three hours per week.

INFORMATION SYSTEMS (INFO)

111. BUSINESS MICROCOMPUTER USE
1 hour credit
Laboratory course that familiarizes students with current end-user software such as word processors, spreadsheets and databases. Two hours per week.

211. INFORMATION SYSTEMS CONCEPTS FOR MANAGEMENT
3 hours credit
Examines use of information technology to meet management challenges within the business environment. Computer-based labs and class discussions promote understanding of the technical aspects of information systems and an appreciation for the relationship between systems and organizational processes. Prerequisite: INFO 111 or COSC 116 or COSC 120 or COSC 118. Three hours per week.

281. INTERMEDIATE BUSINESS STATISTICS
3 hours credit
Study of modern statistical technique with emphasis on data analysis in a computer-assisted environment. Topics include analysis of variance and experimental design, categorical data analysis, regression analysis, model building, time series analysis and index numbers. Prerequisites: INFO 111 or COSC 116, MATH 160 and a grade of C or better in MATH 155. Three hours per week.

301. BUSINESS APPLICATIONS DEVELOPMENT
3 hours credit
Introduction to the development of business applications using software development languages and tools commonly used in industry. Topics include design and implementation of user interfaces, business process automation and data stores. Major Prerequisites: Junior standing, admission to the professional program, INFO 211. Non-Major Prerequisites: Junior standing, INFO 211. Three hours per week.

326. PRODUCTION AND OPERATIONS MANAGEMENT
3 hours credit
Study of productivity, quality control, cost-effectiveness and profitability of manufacturing and service organizations from the managerial perspective. Topics include product design, resource requirements and flow, facility layout, distribution systems design, quality control, forecasting techniques and inventory policy. Major Prerequisites: Junior standing, admission to the professional program. Non-Major Prerequisites: Junior standing. Three hours per week.

338. SPECIAL TOPICS
3 hours credit
Advanced study of varying information systems topics based on students' interests and needs. May be repeated once for credit under different subtitle. May substitute for an information systems major elective. Prerequisite: Varies by topic. Three hours per week.

350. WEB ANALYSIS AND DESIGN
3 hours credit
Investigates the current state of the Web by analyzing best practices. Involves formal theories for analysis and design. Students will participate in usability studies. The theories and studies of renowned usability, design and technical experts will be highlighted throughout the course. Major Prerequisites: Junior standing, admission to the professional program, INFO 211. Non-Major Prerequisites: Junior standing, INFO 211. Three hours per week.

385. DATA COMMUNICATIONS AND NETWORKING
3 hours credit
Concepts and characteristics of data communication systems including network architectures, network operating systems, OSI Reference Model and network trends. Examination of wired and wireless networks, network security and network management. Major Prerequisites: Junior standing, admission to professional program, INFO 211 or COSC 116 or COSC 120. Non-Major Prerequisites: Junior standing, INFO 211 or COSC 116 or COSC 120. Three hours per week.

386. DATABASE MANAGEMENT SYSTEMS
3 hours credit
Study of the design, implementation and application of database management systems. Examination of several commercially available systems. Prerequisites: Majors: Junior standing, admission to professional program, INFO 301. Non-majors: Junior standing, INFO 301 or COSC 118 or COSC 120. Three hours per week.

395. ADVANCED MANAGEMENT SUPPORT SYSTEMS
3 hours credit
Study of computerized technologies developed to support managerial decision-making. Topics include decision support systems, expert systems, neural computing, artificial intelligence and integration of these technologies. Prerequisite: INFO 211. Three hours per week.

450. COMPUTER HARDWARE AND OS TECHNOLOGIES
3 hours credit
Study of technical topics related to computer systems. Emphasis is placed on hardware architecture, operating systems, basic networking and application software compatibility issues. May not receive credit for both INFO 450 and INFO 455. Major Prerequisites: Junior standing, admission to the professional program, INFO 211. Non-Major Prerequisites: Junior standing, INFO 211. Three hours per week.
455. ADVANCED MICROCOMPUTER APPLICATIONS IN BUSINESS
3 hours credit
Advanced study of microcomputer applications in business with extensive coverage of database management, decision support and operating systems and the use of standard business software. May not receive credit for both INFO 450 and INFO 455. Prerequisite: INFO 211. Three hours per week.

465. GLOBAL INFORMATION SYSTEMS MANAGEMENT
3 hours credit
Analysis of technical, cultural, organizational and geopolitical challenges facing business and IT professionals in implementing and managing IT in an increasingly global, technological environment. Current readings and case studies are used to examine infrastructure, e-business, global teamwork, and transborder and cross-cultural information systems issues. Prerequisite: INFO 211. Three hours per week.

470. ENTERPRISE SYSTEMS
3 hours credit
Overview and applies enterprise systems and investigates such questions as: What are the different enterprise systems and what do they do? What types of changes are associated with implementing such technology? What is involved in an implementation? Major Prerequisites: Junior standing, admission to the professional program, INFO 211. Non-Major Prerequisites: Junior standing, INFO 211. Three hours per week.

475. INFORMATION SYSTEMS ANALYSIS AND DESIGN
3 hours credit
Study of the methods and techniques for conducting a systems project that solve business problems with information technology. Plan, analyze, design and implement a business system as a member of a project team. Computer-based systems analysis and design tool is available for use in the lab. Prerequisites: INFO 301, 385, 386. Three hours per week.

476. INFORMATION SYSTEMS DEVELOPMENT AND IMPLEMENTATION
3 hours credit
Design, implementation, and documentation of an information system. The development project is in the form of field-study or in-depth case-study. Successful completion of this course satisfies the ABLE requirement. Prerequisites: INFO 301, 385, 386. Three hours per week.

480. SEMINAR IN INFORMATION SYSTEMS
3 hours credit
Study of major research findings, case studies and current issues relevant to management in the era of computer-based information systems and use of standard business software. Prerequisites: Information systems major and junior standing. Three hours per week.

485. ADVANCED SEMINAR ON NETWORKING
3 hours credit
Advanced study of designing, implementing, administering and troubleshooting networks that incorporate major network operating systems. Discussion on effectiveness of networks and troubleshooting networks that incorporate major network operating systems. May be used as an information systems elective if approved by the department chair. May be repeated once for credit under different subtitles. Prerequisites: Junior standing and permission of instructor prior to registration.

655. INFORMATION SYSTEMS FOR MANAGEMENT DECISIONS
3 hours credit
Computerized management tools for decision-making are emphasized. Design and use of data processing systems, transaction processing systems and decision support systems discussed. Microcomputer applications include database management spreadsheets, statistical and word processing packages. Prerequisite: Admission to M.B.A. program. Three hours per week.

670. MANAGEMENT SCIENCE MODELS
3 hours credit
Study of rational decision-making in a computer-assisted environment. Topics include decision theory, linear programming, distribution models, inventory and project management. Prerequisite: Admission to M.B.A. program. Three hours per week.

INTERDISCIPLINARY STUDIES (IDIS)

100. FRESHMAN SEMINAR
3 hours credit
Focus on themes, issues and questions of importance in the liberal arts and sciences. Students must co-register for three General Education courses designated as part of the General Education learning community. Meets the objectives of the college orientation seminar. May be repeated once for credit. Three hours per week.

213. INTRODUCTION TO GENDER STUDIES
3 hours credit
Examines the historic roots of gender studies, how various disciplines approach gender issues and how concepts of gender affect lives. May not be taken for credit if student has credit for HIST 213. Three hours per week. Meets General Education IIB.

250. COMPARATIVE RELIGIONS
3 hours credit
Comprehensive overview of major religious traditions, including Judaism, Islam, Christianity, Hinduism, Buddhism, Taoism and religions of the ancient world. Focus on structural concepts such as the experience of the sacred, the roles of myth and symbolic systems, cosmologies and definitions of the religious community. Three hours per week.

260. ENVIRONMENTAL PERSPECTIVES
3 hours credit
Survey of environmental issues in a wide range of disciplines. Team taught by two to three instructors representing at least two schools. The course covers one environmental topic in depth from the perspective of different disciplines. May be taken twice under different course topics. Three hours per week.

278. INTERDISCIPLINARY GENERAL EDUCATION: HUMANITIES
3 hours credit
Introductory-level General Education interdisciplinary course offered through the cooperation of at least two departments. Topic varies semester to semester. Develops students' abilities to integrate and synthesize ideas about the beauty and truth embodied in the traditional disciplines of the humanities. Students may use only one of the following courses to satisfy General Education IB requirements: IDIS 278 or 478. Three hours per week. Meets General Education IB.
279. INTERDISCIPLINARY GENERAL EDUCATION: SOCIAL SCIENCE
3 hours credit
Introductory-level General Education interdisciplinary course offered through the cooperation of at least two departments. Topic varies semester to semester. Expands students' abilities to integrate and synthesize ideas about the interactions of humans in the social world. Students may use only one of the following courses to satisfy General Education IB requirements: IDIS 279 or 479. Three hours per week. Meets General Education IB.

280. SPECIAL TOPICS IN INTERDISCIPLINARY STUDIES
1-6 hours credit
Interdisciplinary seminar with content varying semester to semester. May be repeated under different titles for a maximum of six hours. One to six hours per week.

285. INTRODUCTION TO THE CREATIVE ARTS
3 hours credit
Introduces the basic elements, principles, processes, materials, and inherent qualities of dance, music, theatre, and the visual arts. A team-teaching approach focuses on experiential learning and creativity. Students are required, as a class, to create an integrative arts performance project. Three hours per week. Meets General Education IB.

300. SERVICE LEARNING SEMINAR
1 hour credit
Explores relationships between service and companion courses using a service learning model. Twenty hours of service and one hour seminar every other week. Prerequisite: Permission of instructor. Two hours per week.

424. CURRENT TOPICS IN CONFLICT
3 hours credit
In-depth, interdisciplinary examination of a current case of domestic or international conflict through investigation of its economic, sociocultural, political and historical roots, and exploration of the philosophical, political and sociocultural aspects of its resolution. Prerequisites: SSCI 225 or POSC 424. CURRENT TOPICS IN CONFLICT
3 hours credit

425. INTRODUCTION TO THE CREATIVE ARTS
3 hours credit
Introduces the basic elements, principles, processes, materials, and inherent qualities of dance, music, theatre, and the visual arts. A team-teaching approach focuses on experiential learning and creativity. Students are required, as a class, to create an integrative arts performance project. Three hours per week. Meets General Education IB.

478. INTERDISCIPLINARY GENERAL EDUCATION: HUMANITIES
3 hours credit
Upper-level General Education interdisciplinary course offered through the cooperation of at least two departments. Topic varies semester to semester. Expands students' abilities to integrate and synthesize ideas about the beauty and truth embodied in the traditional disciplines of the humanities. Students may use only one of the following courses to satisfy General Education IB requirements: IDIS 278 or 478. Prerequisite: Junior standing. Three hours per week. Meets General Education IB.

479. INTERDISCIPLINARY GENERAL EDUCATION: SOCIAL SCIENCE
3 hours credit
Upper-level General Education interdisciplinary course offered through the cooperation of at least two departments. Topic varies semester to semester. Expands students' abilities to integrate and synthesize ideas about the interactions of humans in the social world. Students may use only one of the following courses to satisfy General Education IB requirement: IDIS 279 or 479. Prerequisite: Junior standing. Three hours per week. Meets General Education IB.

485. GENDER STUDIES CAPSTONE SEMINAR
3 hours credit
Examines the central issues and questions in women's studies/gender studies from a contemporary perspective. Addresses the constructs of masculinity and femininity in psychology, education, philosophy, history, English, sociology and art. Readings, lectures and discussion provide a theoretical framework for capstone projects in spring semester. Prerequisite: Permission of gender studies coordinator. Three hours per week.

497. UNDERGRADUATE RESEARCH
3 hours credit
Independent student research under the supervision of the Interdisciplinary Studies Coordinator. Students will have the opportunity to study a topic in depth and design their own research project to add to that area's body of knowledge. Specific topics are indicated on student transcripts. Public presentation required. Prerequisites: Junior standing, permission of interdisciplinary studies coordinator. Three hours per week.

LATIN (LATN)

101. ELEMENTARY LATIN I
3 hours credit
Introductory study of the Latin language with emphasis on basic structures including a history of Latin language from the classical period to medieval Latin. Three hours per week. Meets General Education IB.

102. ELEMENTARY LATIN II
3 hours credit
Continuation of the beginning study of the Latin language with on-going emphasis on basic structures, translation and the history of the Latin language. Prerequisite: LATN 101 or at least one year of high school Latin. Three hours per week. Meets General Education IB.

MANAGEMENT (MGMT)

320. MANAGEMENT AND ORGANIZATIONAL BEHAVIOR
3 hours credit
Study of the general nature, behavior and functions of organization and management in business. Emphasis on planning, organizing, leading, motivating and controlling. Prerequisites: Majors: junior standing, admission to the professional program. Minors or others: junior standing. Three hours per week.

330. SPECIAL TOPICS IN MANAGEMENT
3 hours credit
Advanced study of varying management topics based on students' interest and needs. May be repeated once for credit under different subtitles. May substitute for a management major elective depending on the topic (see director of undergraduate studies). Prerequisite: Varies by topics. Three hours per week.

420. BUSINESS AND SOCIETY
3 hours credit
Addresses social and ethical problems facing business today. Ethical principles and problem solving models are applied to issues of profit maximization, workplace diversity, consumerism, risk management, product liability, government-business interface, environmental economics, global business, financial management and other key business areas. Focus is on analyzing these problems and developing alternative ethical solutions through case studies, formal debates and class discussions. Prerequisite: MGMT 320 or Mktg 330. Three hours per week.
422. MANAGEMENT OF THE MULTINATIONAL BUSINESS
3 hours credit
Provides students with an understanding of the unique features that characterize the multinational enterprise. Emphasis on the changing context in which business is conducted on a global basis. Prerequisite: MGMT 320. Three hours per week.

425. APPLIED ORGANIZATIONAL SCIENCE
3 hours credit
Use of understandings about human behavior to motivate employees to work together in harmony. Topics include fundamentals of organizational behavior, leadership and its development, organizational environment and communications, and group processes. Prerequisite: MGMT 320. Three hours per week.

428. ENTREPRENEURSHIP
3 hours credit
Practical analysis of the viability of a business venture and development of a business plan to fund such a venture. Emphasis on reducing risk and uncertainty under competitive economic conditions. Prerequisites: MGMT 320, MKTG 330. Three hours per week.

429. SMALL BUSINESS CONSULTING
3 hours credit
Study of methods and techniques for consulting with small and independent businesses. Students work with business owners under faculty supervision to study real problems of small business organizations and devise and recommend solutions. Prerequisites: MGMT 320, MKTG 330 and senior status. Three hours per week.

450. HUMAN RESOURCE MANAGEMENT
3 hours credit
Study of management of human resources in organizations. Topics include recruiting, selecting, developing and compensating personnel; labor union relations; and development of personnel policy. Not open to students with credit for BUAD 427. Prerequisite: MGMT 320. Three hours per week.

451. STAFFING ORGANIZATIONS
3 hours credit
Detailed examination of recruitment, selection and placement as human resources management activities. Emphasis on functional and strategic staffing topics. Topics include position advertising, interviewing and selection testing. Prerequisite: MGMT 450. Three hours per week.

452. EMPLOYEE-MANAGEMENT RELATIONS
3 hours credit
Detailed examination of human resource areas covering the relationship between employees and management. Course covers unions/collective bargaining, employee rights/responsibilities and employment law. Prerequisite: MGMT 450. Three hours per week.

490. MANAGEMENT INTERNSHIP
3 hours credit
Intern experience in management. May substitute for a management major elective if approved by the school dean. Prerequisites: Junior or senior status, management major, placement and approval by the ABLE program director.

491. ADVANCED MANAGEMENT INTERNSHIP
3 hours credit
Research associated with an internship experience in management. Prerequisite: Approval of ABLE program director. Pre- or Corequisite: MGMT 490.

492. STRATEGIC MANAGEMENT
3 hours credit
Seminar in strategic business decision making. Emphasizes evaluating and integrating appropriate marketing, financial and management information. Prerequisites: FINA 311, MGMT 320, MKTG 330, business/accounting/information systems/finance/management/marketing majors in their last semester before graduation. Corequisite: BUAD 400. Three hours per week.

550. GRADUATE SURVEY OF MANAGEMENT
3 hours credit
Study of the interrelationship of various management functions: principles of general management, production management, information systems and management of international operations. Introduces various schools of management, modern organizational theories and the elements of decision-making. M.B.A. leveling course. Prerequisite: Provisional status in M.B.A. program. Three hours per week.

620. ORGANIZATIONAL THEORY
3 hours credit
Development of a framework for understanding the modern business enterprise. Includes a review of management thought and organizational theory, the functions of management and recent trends in management theory and practice in the U.S. and abroad. The contributions of behavioral science, management science, systems theory, contingency theory and other relevant theories are examined. Prerequisite: Admission to M.B.A. program. Three hours per week.

625. ORGANIZATIONAL BEHAVIOR SEMINAR
3 hours credit
Study of individual and group behavior in organizational structures to understand the interaction of managers with other members of the organization. Prerequisite: Admission to M.B.A. program. Three hours per week.

635. EXTERNAL ENVIRONMENT OF THE ORGANIZATION
3 hours credit
Study of how external environment influences organizational strategy and how business influences society. Topics include ethics, legal environment, corporate governance, corporate social responsibility, government-business relationships, consumerism, globalization and human capital. Prerequisite: Admission to M.B.A. program. Three hours per week.

665. ENTREPRENEURSHIP
3 hours credit
Analyzes organized and systematic entrepreneurship in new enterprises, established large enterprises and nonbusiness institutions. Emphasis is on applying concepts and techniques from the functional areas of business to the new venture development environment in independent and corporate settings. Prerequisite: Admission to M.B.A. program. Three hours per week.

680. CORPORATE STRATEGIC PLANNING AND POLICY
3 hours credit
Capstone course focusing on critical issues affecting the success of the total enterprise in domestic and multinational environments. Emphasis on the functions, responsibilities and ethical values of top managers as they determine the direction of the organization and shape its future. Strategy is the unifying theme in case discussions. Prerequisite: Completion of 12 semester hours at the 600 level in SU's M.B.A. program, including either ACCT 640, 650 or FINA 650. To be taken in the final semester before graduation. Three hours per week.

685. INTERNATIONAL MANAGEMENT SEMINAR
3 hours credit
Study of international aspects of business management and the environment of international business. Topics selected from environmental factors (e.g., cultural, legal, political) and the major aspects of managing business operations in the global environment (e.g., organizational behavior, human
resource management and strategic management). 
Prerequisite: Admission to M.B.A. program. Three hours per week.

MARKETING (MKTG)

330. PRINCIPLES OF MARKETING MANAGEMENT
3 hours credit
Survey of basic marketing concepts and principles from a managerial perspective. Topics include the marketing concept, environment and demand analysis, marketing mix (product, price, distribution and promotion) and an introduction to marketing strategy and international marketing. 
Prerequisites: Majors: junior standing, admission to the professional program. Minors or others: junior standing and ECON 150 or 211 or 212. Three hours per week.

331. PROMOTION MANAGEMENT
3 hours credit
Managerial overview of advertising and sales promotion as they relate to economic and social systems. Topics include promotional planning, research, media selection, creative implementation, retail, business/professional and consumer advertising. Prerequisite: MKTG 330. Three hours per week.

332. CONSUMER BEHAVIOR
3 hours credit
Examination of the buyer (individual consumer and organizational agent) as problem solver. Topics include buying decision processes and social, psychological, anthropological and economic factors that influence behavior in the marketplace. Examines principles, theories, models and research techniques related to purchasing behavior. Prerequisite: MKTG 330. Three hours per week.

333. SALES MANAGEMENT
3 hours credit
Introduction to sales management and the personal selling component of marketing management. Emphasis on both the selling process as well as managing sales personnel. Topics will include market analysis, sales strategies, sales presentations and creating/administering a sales program. Prerequisite: MKTG 330. Three hours per week.

334. PRINCIPLES OF RETAILING
3 hours credit
Evaluation of retailing in our economy with emphasis on change in a dynamic environment. Topics such as structure, organization, merchandising, planning policy, inventory, pricing, record keeping, communication, personnel and location are reviewed, discussed and analyzed. Prerequisite: MKTG 330. Three hours per week.

338. SPECIAL TOPICS IN MARKETING
3 hours credit
Advanced study of varying marketing topics based on students' interests and needs. May be repeated once for credit under different subtitles. May substitute for a marketing major elective depending on the topic (see director of undergraduate studies). Prerequisite: Varies by topics. Three hours per week.

401. BUSINESS MARKETING
3 hours credit
Study of concepts, techniques and problems in organizational marketing. Topics include organizational buying process, buyer-seller relationships, business market segmentation, market planning, sales forecasting and design of marketing mix strategies. Considers a variety of business marketing situations. Prerequisite, MKTG 330. Three hours per week.

423. INTERNATIONAL MARKETING
3 hours credit
Study of the decision-making process in marketing products and services across national boundaries. Examination of the design and modification of marketing strategies. Identification of potential markets with consideration of product, price, promotion and distribution decisions within the restraints of a particular cultural, economic and political setting. Prerequisite: MKTG 330. Three hours per week.

430. MARKETING MANAGEMENT STRATEGY
3 hours credit
Comprehensive managerial analysis of the marketing function. Emphasis on strategic planning and implementation and control of marketing mix activity. Students apply overall knowledge to analyze and propose solutions to marketing problems/opportunities. Prerequisites: Senior status, MKTG 330, six additional hours of marketing electives. Three hours per week.

438. MARKETING RESEARCH
3 hours credit
Collection and analysis of marketing data viewed in context of identifying the market demand (methods of decision making for marketing management). Topics include Bayesian decision theory, sampling techniques, and regression and correlation analysis. Prerequisites: INFO 281, MKTG 330. Three hours per week.

439. SENIOR MARKETING SEMINAR
3 hours credit
Students address contemporary marketing issues and practice marketing management by using an experimental approach to assess the marketing plans and programs of marketing organizations. Prerequisites: Senior status, MKTG 430 or 438. Three hours per week.

490. MARKETING INTERNSHIP
3 hours credit
Intern experience in marketing. May substitute for a marketing major elective if approved by the school dean. Prerequisites: Junior or senior status, marketing major, placement and approval by the ABLE program director.

491. ADVANCED MARKETING INTERNSHIP
3 hours credit
Research associated with an internship experience in marketing. Prerequisite: Approval of ABLE program director. Pre- or Corequisite: MKTG 490.

560. GRADUATE SURVEY OF MARKETING
3 hours credit
Examination of markets and marketing functions responding to a dynamic environment. An overview of domestic and international marketing functions and institutions adapting to social, economic, legal and technical change. Special emphasis will be placed on the ramifications of consumerism and regulation of marketing activities. M.B.A. leveling course. Prerequisite: Provisional status in M.B.A. program. Three hours per week.

660. MARKETING STRATEGY
3 hours credit
Study of classic and contemporary marketing strategies for both profit and nonprofit organizations. Considers the organizational-environmental interface as a shaping factor in planning and implementing the marketing mix. Emphasis placed on planning in dynamic domestic and international environments. Prerequisite: Admission to M.B.A. program. Three hours per week.
661. CONSUMER AND BUYER BEHAVIOR 3 hours credit
Studies the process of customer decision-making, consumption and post-consumption activities. Both internal and external influences on those processes are examined to provide an overall foundation of buyer behavior. **Prerequisite:** Admission to M.B.A. program. **Three hours per week.**

662. PROMOTIONAL STRATEGY 3 hours credit
Examines the development of promotional strategy. Advertising, sales promotion, personal selling and publicity are explored. Emphasis on planning, designing and implementing promotional strategies. **Prerequisite:** Admission to M.B.A. program. **Three hours per week.**

685. INTERNATIONAL MARKETING SEMINAR 3 hours credit
Study of international aspects of marketing management and the environment of international marketing. Topics selected from international finance, international trade, environmental factors (e.g., cultural, legal, political) and the major aspects of marketing management operations in the global environment (e.g., combining application-oriented analyses requiring the utilization of various marketing management concepts). **Prerequisite:** Admission to M.B.A. program. **Three hours per week.**

MATHEMATICS (MATH)
Three units of high school mathematics (including Algebra II and geometry) or college algebra is a prerequisite for all math courses.

100. COLLEGE ALGEBRA: A MODELING APPROACH 3 hours credit
A modeling approach to algebraic topics used in problem solving. Topics include equations and functions; polynomial, exponential and logarithmic functions; graphing and data analysis/modeling. Emphasis on skill development, problem solving, critical thinking, working in teams, use of graphing calculators and communicating effectively. Credit may not be received for more than one of the following: MATH 100, 140. **Prerequisites:** High school Algebra I and II. **Three hours per week.** Meets General Education IIB or III C.

101. FINITE MATHEMATICS 3 hours credit
Introduction to functions, graphs, linear programming, probability, computing and additional topics as time permits. For students in the behavioral, biological, management and social sciences. May not receive credit for both MATH 110 and MATH 101. **Prerequisites:** High school Algebra II and plane geometry. **Three hours per week.** Meets General Education IIB or III C.

115. INTRODUCTION TO MATHEMATICAL MODELING 3 hours credit
Study of the fundamentals of mathematical modeling, including standard functions, qualitative aspects of graphs, rate of change, changing scales, finding perfect fits, looking for good fits and modeling activities. This course may be delivered over the Internet; students will be notified of this in the Registration Bulletin. In this case, interaction would primarily be via asynchronous discussions in threaded conference area, similar to an Internet newsgroup. May not receive credit it for both MATH 165 and MATH 115. **Prerequisites:** High school Algebra II or MATH 140, high school college-prep science course. **Three hours per week.** Meets General Education IIB or III C.

130. FUNDAMENTAL CONCEPTS I 3 hours credit
For prospective elementary school teachers, the course provides a thorough understanding of the mathematical concepts covered in grades one through eight. Moves through the mathematical content into the ability to explain the mathematical ideas and relationships. Emphasizes the ability to explain the concepts in everyday language appropriate for the listener, using correct vocabulary, and the ability to demonstrate these ideas using physical models and/or activities. Use of technology is required. Includes non-routine problem solving. May not receive credit for both MATH 103 and MATH 130. **Three hours per week.** Does not meet General Education.

140. COLLEGE ALGEBRA AND TRIGONOMETRY 4 hours credit
Applications-oriented college algebra and trigonometry course for students planning to study science or additional mathematics. Emphasizes computational, qualitative, visual and symbolic approaches. Topics include functions and graphs; exponential, logarithmic and trigonometric functions; and difference equations. Credit may not be received for more than one of the following: MATH 102, 118, 122, 140. **Prerequisites:** High school Algebra II and plane geometry. **Four hours per week.** Meets General Education IIB or III C.

144. ENVIRONMENTAL MATHEMATICS 3 hours credit
Systems approach to environmental concepts and problems. A principal tool is the Odum diagrammatic systems language, translated into flow equations which are then implemented by computer models. **Prerequisites:** High school Algebra II and plane geometry. **Three hours per week.** Meets General Education IIB or III C.

155. MODERN STATISTICS WITH COMPUTER ANALYSIS 3 hours credit
Descriptive and inferential analysis of raw data, emphasizing appropriate assumptions, computer use and interpretation. Consideration of parametric and nonparametric methods and comparison of their powers. Intended for students in the social and natural sciences. Credit may not be received for more than one: MATH 151, 155 or 213. **Prerequisites:** High school Algebra II and plane geometry. **Three hours per week.** Meets General Education IIB or III C.

160. INTRODUCTION TO APPLIED CALCULUS 3 hours credit
Introductory study of differential and integral calculus with emphasis on techniques and applications. For students in the biological, management, social and behavioral sciences. **Prerequisites:** High school Algebra II and plane geometry. **Three hours per week.** Meets General Education IIB or III C.

190. LIBERAL ARTS MATHEMATICS 3 hours credit
Study of the beauty and structure of mathematics, with emphasis on quantitative and analytical reasoning skills. Various areas of mathematics or its applications will be used as a vehicle for this study. Designed for students whose major area of study does not have specific requirements in mathematics. May not receive credit for both MATH 200 and 190. **Prerequisites:** Three years of high school mathematics including geometry or college-level intermediate algebra. **Three hours per week.** Meets General Education IIB or III C.

201, 202. CALCULUS I, II 4 hours credit each
Introduction to analytic geometry, limits, continuity, derivatives of elementary functions, applications of the derivative, integrals, infinite series, applications and techniques of integra-
tion. MATH 202 is a continuation of 201. Prerequisites: Trigonometry and MATH 140 or equivalent. Four hours per week. Meet General Education IIIB or IIIC.

210. INTRODUCTION TO DISCRETE MATHEMATICS
3 hours credit
Introduction to basic techniques and modes of reasoning for discrete problem solving. Set theory, recurrence relations, counting, graphs and lattices. Prerequisite: MATH 140 or equivalent. Three hours per week. Meets General Education IIIB or IIIC.

213. STATISTICAL THINKING
3 hours credit
Descriptive and inferential analysis of data, emphasizing appropriate assumptions, computer use and interpretation. Parametric and non-parametric methods will be compared and contrasted throughout the course. May not be taken for credit if student has credit for MATH 151 or 155. Concurrent registration with MATH 214 is required Prerequisites or Corequisites: MATH 214 and 160 or 201. Three hours per week.

214. STATISTICS LABORATORY
1 hour credit
Laboratory activities to reinforce topics covered in MATH 213. Must be taken during the same semester that students register for MATH 213. Students having completed MATH 155 or equivalent may also take MATH 214. Prerequisite or Corequisite: MATH 213 or MATH 155. Two hours per week.

230. FUNDAMENTAL CONCEPTS II
3 hours credit
Continuation of the process begun in MATH 130 of preparing prospective elementary school teachers to teach mathematics. Like MATH 130, it fosters a thorough understanding of fundamental mathematics and emphasizes the ability to communicate this. May not receive credit for both MATH 104 and 230. Prerequisite: MATH 130 completed with a C or better. Three hours per week. Meets General Education IIIB or IIIC.

300. INTRODUCTION TO ABSTRACT MATHEMATICS
3 hours credit
Designed for students majoring and minoring in mathematics. Students experience the power of mathematical thought and develop facility with mathematical expression, both written and oral. Assignments make use of both inductive and deductive reasoning. Prerequisite: A course in discrete mathematics (MATH 210) with a grade of C or better. Three hours per week.

306. LINEAR ALGEBRA
3 hours credit
Basic concepts of vector spaces, linear transformations, matrices, determinants and systems of linear equations. Prerequisite: MATH 202. Three hours per week.

310. CALCULUS III
4 hours credit
Arc length, indeterminate forms, Euclidean spaces, functions of several variables, partial differentiation, multiple integrals. Prerequisite: MATH 202. Four hours per week.

311. DIFFERENTIAL EQUATIONS I
4 hours credit

313. SURVEY DESIGN AND SAMPLING
3 hours credit
Peculiarities of sampling and inference commonly encountered in business, the social sciences and natural resources management. Methods for selecting the sample from an existing population and ways for circumventing various difficulties. Prerequisite: MATH 151 or 155 or 213 or 314. Three hours per week. Meets General Education IIIB or IIIC.

314. INTERMEDIATE APPLIED STATISTICS
3 hours credit
Optimal allocation of sampling units to treatments in order to provide the highest accuracy and lowest cost. Designs compared and contrasted for advantages and disadvantages. Introduces standard computer packages (SPSS, BMD, Minitab, etc.). Prerequisite: MATH 151 or 155 or 213. Three hours per week. Meets General Education IIIB or IIIC.

362. MATHEMATICAL FOUNDATIONS OF COMPUTER SCIENCE
3 hours credit
Applications of discrete mathematics to computer science and introduction to the theory of computation. Topics include automata and formal languages, computability by Turing machines and recursive functions, undecidability and computational complexity. Cross-listed as COSC 362. Prerequisites: COSC 120, MATH 210. Three hours per week.

380. INTERNSHIP
3 hours credit
Students work under supervisors in a local firm or public institution in conjunction with an advisor from the math department. Cross-listed with COSC 380. MATH/COSC 380 may be taken twice for a maximum of six credits, but used only once toward a major in mathematics or computer science. Prerequisite: Approval of department chair. Eight to 10 hours per week. (P/F)

385. DIRECTED STUDY
1-4 hours credit
For students who desire to pursue a special topic in mathematics not covered in the current curriculum. Under most circumstances students will take this course for three credit hours. This course may be repeated under different subtitles, but only a total of four credit hours from MATH 385 and/or COSC 385 may be used toward a major or minor. Prerequisite: Permission of the instructor and the chair of the Department of Mathematics and Computer Science. One to four hours per week.

390. UNDERGRADUATE RESEARCH PROJECT
1-3 hours credit
Offers study of some area of the mathematical sciences in more depth than is possible in the usual classroom setting. Students work on a project under the direction of faculty members. Prerequisite: Department chair and research committee approval. (P/F)

402. THEORY OF NUMBERS
3 hours credit
Basic concepts: integers, prime numbers, divisibility, congruences and residues. Prerequisite: MATH 210 or 306 (both recommended). Three hours per week. Meets General Education IIIB or IIIC.

406. GEOMETRIC STRUCTURES
3 hours credit
Axiomatic development of incidence, ordered incidence, affine and absolute geometries; investigation of Euclidean and non-Euclidean geometries. Prerequisite: MATH 210. Three hours per week. Meets General Education IIIB or IIIC.

413. MATHEMATICAL STATISTICS I
3 hours credit
Axioms and algebra of probability, discrete and continuous random variables, multivariate distributions, limit theorems. Prerequisites: MATH 213, 310. Three hours per week.
414. MATHEMATICAL STATISTICS II  
3 hours credit  
Methods of estimating, properties of estimator, hypothesis testing, linear models, least squares, analysis of variance, enumerative data, nonparametric statistics. Prerequisite: MATH 413. Three hours per week.

441. ABSTRACT ALGEBRA I  
3 hours credit  
Introduction to the theory of groups, rings, integral domains and fields, including basic properties of polynomials. Prerequisite: MATH 210 or 306 (both recommended). Three hours per week. Meets General Education IIIIB or IIIC.

442. ABSTRACT ALGEBRA II  
3 hours credit  
Modern abstract algebra including such topics as rings, polynomials and fields. Other topics may include algebraic coding, Boolean algebras, symmetry and mathematical crystallography, applications of finite fields to computer science. Prerequisite: MATH 441. Three hours per week.

451. ANALYSIS I  
3 hours credit  
Modern abstract analysis including topology of the real number system, sequences, continuity and differentiability. Prerequisites: MATH 202, 210. Three hours per week.

452. ANALYSIS II  
3 hours credit  
Modern abstract analysis including such topics as convergence of infinite series, sequences of functions, metric spaces, integration, topology of the real number system and continuity. Prerequisite: MATH 451. Three hours per week.

458. COMPLEX ANALYSIS  
3 hours credit  
Introduction to complex variables accessible to juniors and seniors in mathematics and the physical sciences. Topics will include the algebra of the complex number system, analytic functions, contour integrals, elementary functions, sequences, series and residues. More advanced topics may include conformal mapping, the Schwarz-Christoffel transformation, integral formulas of the Poisson type and Riemann surfaces. Prerequisites: MATH 310 and either MATH 210 or PHYS 309. Three hours per week.

460. OPERATIONS RESEARCH  
3 hours credit  
Introduction to the fundamental problems of operations research. Topics include mathematical programming, network analysis, simulation, probabilistic decision models, queuing and inventory models. Prerequisite or Corequisite: MATH 306. Three hours per week.

465. MATHEMATICAL MODELS AND APPLICATIONS  
3 hours credit  
Mathematical basis for model building; examples of simple models for uncomplicated systems in biology, psychology, business and other fields; finite Markov process; models for growth process. Prerequisite or Corequisite: MATH 306. Three hours per week.

471. NUMERICAL METHODS  
3 hours credit  
Interpolation, functional approximation, numerical differentiation and integration, nonlinear equations, systems of linear equations, analysis of error. Prerequisites: COSC 117 or 118 or 120 and one of the following: MATH 306 or MATH 310 or MATH/PHYS 309. Three hours per week.

475. INTRODUCTION TO DYNAMICS AND CHAOS  
3 hours credit  
Topics include orbits, bifurcations, Cantor sets and horse-shoes, symbolic dynamics, fractal dimensions, notions of sta-
503. DATA ANALYSIS
3 hours credit
Designed for middle-school teachers of mathematics, with emphasis on the proper collection and analysis of data to draw meaningful conclusions. Descriptive statistics and statistical inference are both included. Explorations will be accomplished using computer software. Graduate credit only. Prerequisite: Admission to graduate study. Three hours per week.

506. SELECTED TOPICS
3 hours credit
Designed for students with a major in mathematics to develop topics in mathematics not included in their undergraduate program, or to extend areas previously studied. Specific topics may be indicated on transcript. May be taken twice under different course subtitles. Graduate credit only. Prerequisite: Department chair approval.

507. SEMINAR: ALGEBRA
3 hours credit
A seminar dealing with selected topics from linear and abstract algebra. A seminar paper is required. Graduate credit only. Prerequisite: Department chair approval.

508. SEMINAR: GEOMETRY
3 hours credit
A seminar dealing with selected topics from geometry. Topics which support course material in the secondary school curriculum will be included. A seminar paper is required. Graduate credit only. Prerequisite: Admission to graduate study. Three hours per week.

510. MATHEMATICAL REASONING
3 hours credit
Designed for middle-school mathematics teachers and others who want to enhance their capabilities in mathematical reasoning. Selected topics from discrete mathematics, including sets, logic and proof, relations, graphs, recursion and combinatorics, with a special focus on constructing and presenting well-organized arguments and justifications of mathematical statements. Graduate credit only. Prerequisite: Admission to graduate study (student does not have to be admitted to graduate program). Three hours per week.

512. THEORY OF NUMBERS
3 hours credit
Basic concepts: integers, prime numbers, divisibility, congruencies and residues. Credit may not be received for more than one: MATH 402, MATH 512. Prerequisites: MATH 210 or 306 (both recommended), graduate standing required. Three hours per week.

513. MATHEMATICAL STATISTICS I
3 hours credit
Axioms and algebra of probability, discrete and continuous random variables, multivariate distributions, limit theorems. Credit may not be received for more than one: MATH 413, 513. Prerequisites: MATH 213, MATH 310, graduate standing required. Three hours per week.

514. MATHEMATICAL STATISTICS II
3 hours credit
Methods of estimating, properties of estimator, hypothesis testing, linear models, least squares, analysis of variance, enumerative data, nonparametric statistics. Credit may not be received for more than one: MATH 414, MATH 514. Prerequisites: MATH 413 or 513, graduate standing required. Three hours per week.

515. MATHEMATICAL MODELS AND APPLICATIONS
3 hours credit
Mathematical basis for model building; examples of simple models for uncomplicated systems in biology, psychology, business and other fields; finite Markov process; models for growth process. Credit may not be received for more than one: MATH 465, MATH 515. Prerequisites or Corequisites: MATH 306, graduate standing required. Three hours per week.

516. GEOMETRIC STRUCTURES
3 hours credit
Axiomatic development of incidence, ordered incidence, affine and absolute geometries; investigation of Euclidean and non-Euclidean geometries. Credit may not be received for more than one: MATH 406, MATH 516. Prerequisites: MATH 210, graduate standing required. Three hours per week.

520. MIDDLE-SCHOOL MATHEMATICS IN A TEACHING CONTEXT WITH INSTRUCTIONAL TECHNOLOGY
3 hours credit
Designed for middle-school teachers of mathematics, with emphasis on experimentation with instructional technology and the creation of middle-school curriculum that incorporates mathematical understandings developed in other graduate courses. Prerequisite: Admission to graduate study (student does not need to be admitted to a graduate program) Three hours per week.

530. DIRECTED RESEARCH
3 hours credit
Preparation of optional research project in a master’s program under departmental supervision. Graduate credit only.

541. CONCEPTUAL ALGEBRA FOR TEACHERS
3 hours credit per week
Designed for middle-school mathematics teachers or those who wish to teach middle-school mathematics. Emphasis on conceptual aspects of algebra and the meanings that underlie it. Graduate credit only. Prerequisite: Admission to graduate study. Three hours per week.

551. ANALYSIS I
3 hours credit
Modern abstract analysis including topology of the real number system, sequences, continuity and differentiability. Prerequisites: MATH 202, 210, graduate standing required. Credit may not be received for more than one: MATH 451, MATH 551. Three hours per week.

552. ANALYSIS II
3 hours credit
Modern abstract analysis including such topics as convergence of infinite series, sequences of functions, metric spaces, integration, topology of the real number system and continuity. Credit may not be received for more than one: MATH 452, MATH 552. Prerequisites: MATH 451 or 551, graduate standing required. Three hours per week.

555. CARTESIAN TRIAD
3 hours credit
Designed for middle-school teachers of mathematics, with emphasis on the coordinate geometry of the Euclidean plane. Topics include functions, equations and inequalities, limit concepts and matrices. Hands-on exploration with computer software is included in the course. Graduate credit only. Prerequisite: Admission to graduate study. Three hours per week.

558. COMPLEX ANALYSIS
3 hours credit
Introduction to complex variables accessible to juniors and seniors in mathematics and the physical sciences. Topics will include the algebra of the complex number system, analytic functions, contour integrals, elementary functions, sequences, series and residues. More advanced topics may include conformal mapping, the Schwarz-Christoffel transformation, integral formulas of the Poisson type and Riemann surfaces. Prerequisites: MATH 310 and MATH 210 or PHYS 309. Three hours per week.
560. OPERATIONS RESEARCH
3 hours credit
Introduction to the fundamental problems of operations research. Topics include mathematical programming, network analysis, simulation, probabilistic decision models, queuing and inventory models. Credit may not be received for more than one: MATH 460, MATH 560. Prerequisite or Corequisite: MATH 306, graduate standing required. Three hours per week.

561. ABSTRACT ALGEBRA I
3 hours credit
Introduction to the theory of groups, rings, integral domains and fields, including basic properties of polynomials. Credit may not be received for more than one: MATH 441, MATH 561. Prerequisites: MATH 210 or 306 (both recommended), graduate standing required. Three hours per week.

562. ABSTRACT ALGEBRA II
3 hours credit
Modern abstract algebra including such topics as rings, polynomials and fields. Other topics may include algebraic coding. Boolean algebras, symmetry and mathematical crystallography, applications of finite fields to computer science. Credit may not be received for more than one: MATH 442, MATH 562. Prerequisites: MATH 441 or 561, graduate standing required. Three hours per week.

565. MATHEMATICAL MODELING FOR MIDDLE-SCHOOL TEACHERS
3 hours credit
Designed for middle-school teachers of mathematics, with emphasis on expressing mathematical relationships found in the real world. The models studied will vary. Examples of technology to support the course include spreadsheets, simulation packages, graphing calculators and electronic devices to gather for laboratory exercises. Graduate credit only. Prerequisite: Admission to graduate study. Three hours per week.

566. GEOMETRY: FROM EUCLID TO MODERN DAY
3 hours credit
Designed for middle-school teachers of mathematics. Topics include axiomatic formulations, Euclidean and non-Euclidean geometry, spirals, symmetry, coordinate geometry, graphs, networks, fractals and geometry in art. Graduate credit only. Prerequisite: Admission to graduate study. Three hours per week.

571. NUMERICAL METHODS
3 hours credit
Interpolation, functional approximation, numerical differentiation and integration, nonlinear equations, systems of linear equations, analysis of error. Credit may not be received for more than one: MATH 471, MATH 571. Prerequisites: COSC 117 or 118 or 120 and one of the following: MATH 306 or MATH 310 or MATH/PHYS 309, graduate standing required. Three hours per week.

575. INTRODUCTION TO DYNAMICS AND CHAOS
3 hours credit
Introduction to mathematical dynamics and chaos. Topics include orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimension, notions of stability, flows and chaos. Includes motivation and historical perspectives, as well as examples of fundamental maps studied in dynamics and applications of dynamics. Credit may not be received for more than one: MATH 475, MATH 575. Prerequisites: MATH 202 or 210, graduate standing required. Three hours per week.

580. HISTORY OF MATHEMATICS
3 hours credit
Study of the chronological development of mathematics with emphasis on both the mathematical concepts and the principal contributors to the development of those concepts. Credit may not be received for more than one: MATH 480, MATH 580. Prerequisites: MATH 202 or 210 (both recommended), graduate standing required. Three hours per week.

582. COMPUTER GRAPHICS
3 hours credit
Generate and manipulate graphic information using the computer. Emphasis on the analysis of fundamental problems associated with these activities and on the structured design of solutions. Cross-listed with COSC 482/582. Credit may not be received for more than one: COSC 482, COSC 582, MATH 482, MATH 582. Prerequisites: COSC 120, MATH 306, graduate standing required. Three hours per week.

590. SPECIAL PROBLEMS IN MATHEMATICS
3 hours credit
Individually designed programs including summer workshops and special seminars. Specific topic indicated on transcript. May be taken twice under different course subtitles. Graduate credit only. Prerequisite: Permission of instructor.

593. ADVANCED TOPICS IN STATISTICS
3 hours credit
Study in specialized areas of statistics such as time series, stochastic processes, quality control designs and analyses or other topics suggested by faculty or students. May be repeated once under different subtitles. Prerequisites: MATH 213, permission of instructor, graduate standing required. Three hours per week.

CLINICAL LABORATORY SCIENCE/MEDICAL TECHNOLOGY (MDTC)

101. SAFETY IN THE BIOLOGICAL, CHEMICAL AND CLINICAL LABORATORY
1 hour credit
Review of laboratory safety. Summary of government laws and regulatory bodies and their effect on lab policy. Illustrations of proper procedures for laboratory hazards. Topics include chemicals, infectious microbes, animals, fire, electrical equipment, radiation, glassware and compressed gases. Training in the use of safety equipment, protective clothing and general first aid. Students may not earn credit for both MDTC 101 and BIOL 115. One hour per week.

201. MEDICAL PHYSIOLOGY
4 hours credit
Presentation of human physiology at the cell and organ levels to include the nervous, skeletonmuscular, cardiovascular, excretory, digestive, respiratory and endocrine systems. Emphasis on normal function and medical relevance. Students may not earn credit for BIOL 214 and MDTC 201. This course will not count for credit in the biology major. Prerequisite: BIOL 101 or 210 or permission of instructor. Three hours lecture, two hours laboratory per week.

300. PRINCIPLES OF CLINICAL LABORATORY SCIENCE
4 hours credit
Introduction to clinical laboratory science including use of laboratory equipment, safety, ethics, diagnostic and prognostic use of testing, specimen collection and handling, statistics, quality assurance and quality control, microscopy, particle counting techniques, components of blood, WBC differentiation, spectrophotometry, methods comparison, lab math, lab computerization, and professional communication methods. Prerequisites: CHEM 122 and BIOL 101 or 210; or permission of instructor. Three hours lecture, two hours laboratory per week.
301. HEMATOLOGY I
4 hours credit
Hematopoiesis, red blood cell production and destruction, non-neoplastic leukocyte disorders and lupus erythematosus; blood cell metabolism and hemoglobin synthesis. Laboratory focuses on normal/abnormal patient differentiation using CBC, microscopic analysis and clinical correlations. Prerequisite: MDTC 300 or permission of instructor. Three hours lecture, three hours laboratory per week.

311. CLINICAL MICROBIOLOGY I
4 hours credit
Study of bacteria causing disease in humans, with emphasis on methods used for isolation and identification of clinically significant organisms. Review of classification, physiology, biochemistry of, and host response to, infectious organisms. Prerequisites: BIOL 211, MDTC 300, 331. Three hours lecture, three hours laboratory per week.

314. CLINICAL IMMUNOLOGY
4 hours credit
Basic biology and pathological disorders of the human system are reviewed. Presentation and performance of medical laboratory and techniques for clinical diagnosis utilizing immunohemolymph, molecular and automated techniques. Prerequisites: CHEM 122 and BIOL 101 or 210 or 215 or 216; or permission of instructor. Three hours lecture and three hours laboratory per week.

341. CLINICAL BIOCHEMISTRY I
5 hours credit
Clinical analyses assayed on a routine basis in the clinical chemistry laboratory. Normal physiology and change of analyte in disease are presented related to carbohydrate, protein and mineral metabolism, liver, cardiac and pancreatic function, enzymology, electrolyte and acid-base balance; blood gases; body fluid analysis; and evaluation of kidney function via chemical and microscopic methods. Prerequisites: MDTC 201, 300, BIOL 101 or 210 or permission of instructor. Four hours lecture, three hours laboratory per week.

401. HEMATOLOGY II
3 hours credit
Lymphomas, leukemias, myeloproliferative and myelo-dysplastic syndromes, plasma cell dyscrasias, special hematology procedures and hemostasis. Topics include cytochemical staining, coagulation assays, bleeding disorders and quality control. Prerequisite: MDTC 301 or permission of instructor. Two hours lecture, three hours laboratory per week.

402. HEMATOLOGY III
3 hours credit
Advanced instruction and laboratory experience in hematology and coagulation. Lecture and laboratory conducted in a clinical laboratory under the supervision of registered laboratory scientists. Students apply knowledge of prerequisite coursework to the daily operation of the hematology laboratory. Prerequisite: MDTC 401 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

403. URINE AND BODY FLUID ANALYSIS
1 hour credit
Advanced study of the physical, chemical and microscopic analysis of urine and body fluids under the supervision of registered laboratory scientists in a clinical setting. Students apply knowledge of prerequisite coursework to daily operation to include instrumentation, quality assurance and significance of normal and abnormal results. Prerequisite: MDTC 341 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

411. CLINICAL MICROBIOLOGY II
4 hours credit
Study of human bacterial, viral, fungal and parasitic pathogens. Emphasis on body sites where these pathogens cause disease, antibiotic susceptibility testing, and on microscopic, biochemical, automated and molecular methods utilized to identify them. Prerequisite: MDTC 311 or permission of instructor. Three hours lecture, three hours laboratory per week.

412. CLINICAL MICROBIOLOGY III
3 hours credit
Advanced study of clinical microbiology conducted in a clinical setting under the supervision of registered laboratory scientists. Students apply knowledge of prerequisite courses to the operation of automated equipment, processing and interpretation of routine, fungal and mycobacterial cultures, antimicrobial susceptibility testing, virology, parasitology specimens and quality control. Prerequisite: MDTC 411 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

413. CLINICAL IMMUNOLOGY
1 hour credit
Advanced study of diagnostic immunology in a clinical setting under the supervision of registered laboratory scientists. Students apply knowledge of prerequisite coursework to problems of instrumentation, quality assurance and significance of normal and abnormal results. Prerequisites: MDTC 331, 411 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

431. INTRODUCTION TO TRANSFUSION SERVICES
3 hours credit
Lecture and laboratory related to the study of blood group antigens, antibodies and transfusion therapy. Topics include antigen typing, atypical antibody identification, donor screening and phlebotomy, component preparation and therapy, cell metabolism and preservation, HLA typing and paternity testing, quality control, hazards of transfusion and medicolegal issues. Prerequisites: MDTC 301, 331 or permission of instructor. Two hours lecture, three hours laboratory per week.

432. CLINICAL PRACTICE IN TRANSFUSION SERVICES
3 hours credit
Advanced instruction and laboratory experience in immunohematology. Lecture and laboratory conducted in a transfusion service under the supervision of registered laboratory scientists. Students apply knowledge of prerequisite coursework to the daily operation of a transfusion service laboratory, including component therapy, cellular antigen and antibody identification and compatibility testing, transfusion risks, and quality control. Prerequisite: MDTC 431 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

441. CLINICAL BIOCHEMISTRY II
4 hours credit
Advanced clinical chemistry topics including immunohematology, radioactivity, chromatography, toxicology, therapeutic drug monitoring, quality control and method evaluation. Emphasis related to human endocrinology, gastric and muscular function, genetic defects, vitamin and lipid metabolism. Prerequisite: MDTC 341 or permission of instructor. Three hours lecture, three hours laboratory per week.

442. AUTOMATED CLINICAL CHEMISTRY
2 hours credit
Advanced study of clinical chemistry, respiratory therapy and computer operations in a clinical setting under the supervision of registered laboratory scientists. Students apply knowledge from prerequisite courses to the operation of automated and manual equipment, troubleshooting, assessment of normal and abnormal values as related to routine analysis methodology, assurance of accuracy and precision of laboratory data. Prerequisites: MDTC 341, 441 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

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443. SPECIAL CLINICAL CHEMISTRY
3 hours credit
Advanced instruction and laboratory experience in specialized clinical chemistry. Lecture and laboratory conducted in a clinical laboratory under the supervision of registered laboratory scientists. Students apply knowledge of prerequisite coursework to the daily operation of the clinical laboratory to include operation of automated and manual equipment, troubleshooting, assessment of normal and abnormal laboratory data as related to pathology for analytes measured on a non-routine basis. Study of specialized procedures involving endocrinology and therapeutic drug monitoring. Prerequisites: MDTC 341, 441 or permission of instructor. Five hours lecture, 35 hours laboratory per week.

461. ORGANIZATION AND MANAGEMENT OF THE LABORATORY
2 hours credit
Lecture and practical applications of theories of management and administration to the organization of the clinical laboratory. A unit on education including educational theory, adult education and continuing education. Students prepare written reports on projects concerning these topics throughout the course. Topics include medicolegal issues, impacts of federal regulations on health care, and budget and finance. Prerequisite: Senior standing in major or permission of instructor. Two hours per week.

470. RESEARCH METHODS IN CLINICAL LABORATORY SCIENCE
1 hour credit
An introduction to methods in research design/practice with emphasis on evaluation of published laboratory science research literature for the purpose of research design, publication and presentation. Should be taken the fall semester prior to MDTC 471. Prerequisites: Senior standing in major, permission of instructor. One hour per week.

471. CLINICAL SEMINAR
1 hour credit
Case studies and examples of “classes” of disease that exemplify the “total” laboratory picture for the student. Physician lectures as well as interdisciplinary and clinical conferences. Prerequisite: Senior standing in major. One hour per week.

490. INDEPENDENT STUDY
1-3 hours credit
Intensive study in a specific area of medical laboratory technology negotiated between student and faculty member. May be taken twice under different course subtitles. Prerequisite: Permission of instructor. Lecture, laboratory hours per week depend on topic.

MODERN FOREIGN LANGUAGES (MDFL)

101. ELEMENTARY LANGUAGE STUDY I
3 hours credit
Exploration and study of languages not normally in the fixed curriculum. May be repeated once under a different subtitle. Three hours per week. Meets General Education IB.

102. ELEMENTARY LANGUAGE STUDY II
3 hours credit
Second semester opportunity for exploration and study of languages not normally offered in the fixed curriculum. May be repeated once under a different subtitle. Three hours per week. Meets General Education IB.

111. ELEMENTARY SIGN LANGUAGE I
3 hours credit
Beginning study of American Sign Language including the culture of deaf people. Three hours per week. Meets General Education IB.

112. ELEMENTARY SIGN LANGUAGE II
3 hours credit
Continuation of skill development and vocabulary and sign acquisition of American Sign Language including the culture of deaf people. Prerequisite: MDFL 111 or one year of high school sign language or equivalent experience. Three hours per week. Meets General Education IB.

241. THE FRENCH PEOPLE
3 hours credit
Study of contemporary French culture. The uniqueness of French mentality is studied through the language, the traditions and customs of the people. Taught in English. Three hours per week. Meets General Education IB.

245. THE GERMAN PEOPLE
3 hours credit
Cross-cultural approach to the study of the German culture through the language, traditions and the lifestyle of the people. Taught in English. Three hours per week. Meets General Education IB.

246. THE RUSSIAN PEOPLE
3 hours credit
Focus on the people of Russia. Major topics include culture, politics, nationalism, health care, education, religion, ethnic conflict. Provides students with a well rounded view of Russian society as it exists today. Taught in English. Three hours per week. Meets General Education IB.

300. STUDIES IN FRENCH LITERATURE IN TRANSLATION
3 hours credit
Study of an author, period, movement, genre or theme. Topic varies semester to semester. Taught in English. May be repeated once under a different subtitle. Taught in English. Three hours per week. Meets General Education IB.

399. INTERNATIONAL FIELD STUDY
1-6 hours credit
On-site study of the geography, history and culture of selected foreign countries. Work in field preceded by pre-tour lectures. May be repeated with new content and different subtitle.

MUSIC (MUSA, MUSC)

MUSA

100. UNIVERSITY CHORALE
1 hour credit
Non-auditioned ensemble of mixed SATB voices which performs a variety of choral literature from all music periods and styles. Membership open to all students. Some singing ability and understanding of musical notation expected. Fulfills large ensemble requirement for majors. Three hours per week.
101. UNIVERSITY BAND
1 hour credit
Non-auditioned ensemble open to all University wind and percussion students who wish to continue their performance experience at the university level. Performances include select athletic events, on-campus functions and special activities. Two hours per week.

102. JAZZ ENSEMBLE AND IMPROVISATION
1 hour credit
Study and performance of a variety of jazz styles, including swing, bebop, cool, hard bop, contemporary, blues, fusion and Latin. Study and application of improvisation skills as an integral part of the ensemble experience. Open to all students and community players. Fullfills large ensemble requirement for music major and minor. Prerequisite: Performance background, sight-reading skills preferred. Three hours per week.

103. CHAMBER MUSIC ENSEMBLES
1 hour credit
Study, rehearsal and performance of selected works for small ensembles, both vocal and instrumental (designated by the department for any given semester). Advanced students with prior performing experience and full-time undergraduate students only. Prerequisites: Audition, approval of the instructor/department in writing. Two hours per week.

104. MUSICAL THEATRE WORKSHOP
1 hour credit
Research, study, rehearse and perform songs and scenes from American musical theatre. Study of vocal and audition techniques, staging, blocking, “characterizing” a song, musical theatre styles and performance etiquette. Open to all students. Fullfills large ensemble requirement for music major and ensemble requirement for music minor. Prerequisite: Audition. Three hours per week.

105. SYMPHONY ORCHESTRA
1 hour credit
Study and performance of standard orchestral literature and contemporary compositions. Players from all majors may participate. The orchestra is a full-size symphonic ensemble comprised of students, faculty, professionals and community players. Fullfills large ensemble requirement for majors. Prerequisite: Audition. Three hours per week.

106. CHAMBER CHOIR
1 hour credit
Selected choral ensemble whose members assume individual responsibility for professionalism, commitment, awareness of musical objectives and excellence in performance. Attendance at all rehearsals mandatory; outside preparation required to equalize differing levels of ability. Open to all students by audition only. Fullfills small ensemble requirement for majors. Three hours per week.

107. CONCERT BAND
1 hour credit
Select ensemble of wind and percussion instrumentalists. Performance of “chamber” and “large” ensemble repertoire spanning all musical epochs. Open to all majors. Fullfills large ensemble requirement for majors. Attendance at all rehearsals and performances is mandatory. Three hours per week.

108. CLASS VOICE I
1 hour credit
Introduction to vocal techniques through voice placement, breathing, tone production and diction. Recommended for the general student as well as students interested in musical theatre and communication arts. Includes introduction to art song literature and musical theatre repertoire. Two hours per week.

131. ACCOMPANYING
1 hour credit
Designed for ensemble work in instrumental and vocal studies. Two semesters required for majors with keyboard emphasis. Prerequisite: Permission of instructor. Two hours per week.

138. APPLIED MUSIC I
1-2 hours credit
Study of fundamental skills appropriate to the instrument or voice with survey of basic literature. Prerequisites: Entrance audition, permission of department chair. Corequisite: MUSA 391. One half-hour meeting per week per credit.

139. APPLIED MUSIC II
1-2 hours credit
Continues MUSA 138 with study of fundamental voice or instrument skills and survey of relevant literature. Prerequisite: Successful panel evaluation at the conclusion of MUSA 138. Corequisite: MUSA 391. One half-hour meeting per week per credit.

205, 206. CLASS PIANO I AND II
1 hour credit each
Group piano instruction with individual help. To develop fundamental piano skills for students with little or no piano experience. Basic skills included are reading, harmonization, transposition, improvisation and compositional techniques. Each course may be repeated once for credit. Prerequisite: MUSC 201 or equivalent. Piano I a prerequisite to Piano II. Two hours per week.

209, 210. CLASSICAL GUITAR I AND II
2 hours credit each
Fundamentals of six-string guitar techniques, chords and basic classical guitar using musical notation, accompaniment styles, melodies and appropriate literature. Each may be repeated once for credit. Prerequisite: None for Guitar I. Guitar I is a prerequisite to Guitar II. Two hours per week.

213. SINGER’S DICTION I
1 hour credit
Introduction to the international phonetic alphabet (IPA) and the application of English and Italian diction to contemporary English and 18th century Italian art song literature. Required for all voice majors. Corequisite: Applied voice study. Two hours per week.

214. SINGER’S DICTION II
1 hour credit
Continued study of diction through application of the international phonetic alphabet (IPA) and German and French diction to German “Lieder” and French “Melodies.” Required for all voice majors. Prerequisite: MUSA 213. Corequisite: Applied voice study. Two hours per week.

238. APPLIED MUSIC III
1-2 hours credit
Continues MUSA 139 with study of fundamental voice or instrument skills and survey of relevant literature. Prerequisite: Successful panel evaluation at the conclusion of MUSA 139. Corequisite: MUSA 391. One half-hour meeting per week per credit.

239. APPLIED MUSIC IV
1-2 hours credit
Continues MUSA 238 with study of fundamental voice or instrument skills and survey of relevant literature. Prerequisite: Successful panel evaluation at the conclusion of MUSA 238. Corequisite: MUSA 391. One half-hour meeting per week per credit.

338. APPLIED MUSIC V
1-2 hours credit
Continues MUSA 239 with study of fundamental voice or
instrumental skills and survey of relevant literature. **Prerequisite:** Successful panel evaluation at the conclusion of MUSA 239. **Corequisite:** MUSA 391. One half-hour meeting per week per credit.

339. APPLIED MUSIC VI
1-2 hours credit
Continuation of MUSA 338. **Prerequisites:** Successful panel evaluation at the conclusion of MUSA 338, permission to prepare for a public recital. **Corequisite:** MUSA 391. One half-hour meeting per week per credit.

390. APPLIED STUDY
1-2 hours credit
Individual studio lessons in an instrument or voice as a minor specialty. Open to majors and non-majors. Repeatable under all sections. **Prerequisite:** Permission of instructor. One-half our meeting per week per credit.

391. PERFORMANCE CLASS
0 credit
Designed as a repertory and performance preparation class for all music majors. All majors are required to take this class while studying their major applied area in the following courses: MUSA 138, 139, 238, 239, 338, 339, 438, 439 or 390. One hour per week.

438. APPLIED MUSIC VII
2 hours credit
Continues MUSA 339 with study of fundamental voice or instrument skills and survey of relevant literature. **Prerequisite:** Successful panel evaluation at the conclusion of MUSA 339. **Corequisite:** MUSA 391. One half-hour meeting per week per credit.

439. APPLIED MUSIC VIII
2 hours credit
Continuation of MUSA 438 with a concentration on selected literature appropriate for a public recital. Must be approved by chair. **Prerequisite:** Successful panel evaluation at the conclusion of MUSA 339. **Corequisite:** MUSA 391. One half-hour meeting per week per credit.

501. SYMPHONY ORCHESTRA
1 hour credit
Research and performance of major works in orchestral literature. **Prerequisite:** Audition. Four hours rehearsal per week.

502. SYMPHONY ORCHESTRA
1 hour credit
Continued research and performance of major works in the field of orchestral literature. **Prerequisite:** Audition. Four hours rehearsal per week.

503. SYMPHONY ORCHESTRA
1 hour credit
Research and performance of major works in the field of orchestral literature using advanced conducting techniques. **Prerequisite:** Audition. Four hours studio per week.

507. CHAMBER CHOIR
1 hour credit
Research and performance of major works in choral literature. **Prerequisite:** Audition. Four hours rehearsal per week.

508. CHAMBER CHOIR
1 hour credit
Continued research and performance of major works in the field of choral literature. **Prerequisite:** Audition. Four hours rehearsal per week.

509. CHAMBER CHOIR
1 hour credit
Research and performance of major works in the field of choral literature using advanced conducting techniques. **Prerequisite:** Audition. Four hours rehearsal per week.

516. WIND ENSEMBLE
1 hour credit
Research and performance of major works in wind ensemble literature. **Prerequisite:** Audition. Four hours rehearsal per week.

517. WIND ENSEMBLE
1 hour credit
Continued research and performance of major works in the field of wind ensemble literature. **Prerequisite:** Audition. Four hours rehearsal per week.

518. WIND ENSEMBLE
1 hour credit
Research and performance of major works in the field of wind ensemble literature using advanced conducting techniques. **Prerequisite:** Audition. Four hours rehearsal per week.

538. APPLIED MUSIC IX
1-2 hours credit
Individual studio instruction providing a graduate extension of an undergraduate major performing area. **Prerequisite:** Audition.

539. APPLIED MUSIC X
1-2 hours credit
Continued individual studio instruction at graduate level in a major performing area. **Prerequisites:** Audition, MUSA 538.

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**MUSIC**

112. CREATIVITY AND ELECTRONIC/ACOUSTIC MUSIC
3 hours credit
Stylistic, technical and intuitive aspects of music examined through listening, discussion and creative exercises. Students explore their creative potential in music and are familiarized with newer techniques of composition including synthesized music. **Three hours per week. Meets General Education IB.**

114. MUSIC APPRECIATION
3 hours credit
Historical survey of musical styles and genres from around the world. Topics may include Western Classical music, non-Western cultures, folk music and jazz. **Three hours per week. Meets General Education IB.**

201. INTRODUCTION TO MUSIC THEORY
3 hours credit
Principles of music construction based on a historical perspective of music theory in Western culture. Emphasis on the nature of modes and/or tonal centers and the organization of melody, harmony and voice leading utilizing basic elements of keys, scales, chords, notation and ear training. **Three hours per week. Meets General Education IB.**

203. THEORY I
3 hours credit
Intermediate music fundamentals including rhythm, basic melodic and harmonic relationships, voice leading, harmonic function and basic composition. Prior knowledge of music notation key signatures, scales and triads recommended. **Prerequisites:** MUSC 201 for non-majors and permission of instructor. **Three hours per week.**
204. THEORY II  
3 hours credit  
Continuation of MUSC 203 with added emphasis on voice leading with complex diatonic chords, localized musical formal features, non-chord tones, analysis and composition. Prerequisite: MUSC 203 or permission of instructor. Three hours per week.

215. INSTRUMENTAL TECHNIQUES-WOODWINDS  
1 hour credit  
Introduction of traditional woodwind instruments and their development in the Western culture. Basic cognitive and psychomotor techniques involving instrument handling, embouchure, breathing, articulation and fingering combinations are discussed, practiced and demonstrated. Prerequisite: Music major or permission of instructor. Two hours per week.

216. INSTRUMENTAL TECHNIQUES-PERCUSSION  
1 hour credit  
Introduction to traditional percussion instruments and their development in Western culture. Basic cognitive and psychomotor techniques that involve proper handling and traditional performance practices are discussed, practiced and demonstrated. Prerequisite: Music major or permission of instructor. Two hours per week.

217. INSTRUMENTAL TECHNIQUES-STRINGS  
1 hour credit  
Introduction to traditional orchestral string instruments and their development in Western culture. Basic cognitive and psycho-motor techniques involving instrument handling, bowing, finger patterns and shifting are discussed, practiced and demonstrated. Prerequisite: Music major or permission of instructor. Two hours per week.

218. INSTRUMENTAL TECHNIQUES-BRASS  
1 hour credit  
Introduction to traditional brass instruments and their development in Western culture. Basic cognitive and psychomotor techniques that involve embouchure, breathing, articulation, fingering combinations and tone production are discussed, practiced and demonstrated. Prerequisite: Music major or permission of instructor. Two hours per week.

220. INTRODUCTION TO MUSIC OF THE WORLD  
3 hours credit  
Introduction to world musical traditions and practices, such as Africa, China, India, Japan and the Americas. Ability to read music is not necessary. Open to non-music majors, music majors and minors. Three hours per week. Meets General Education IB.

301. JAZZ THEORY  
3 hours credit  
An introduction to jazz melody and harmony with particular emphasis on the innovations of bebop and its resultant styles. A historical perspective, analytical approaches to harmony and melody and short compositional and arranging exercises provide students with the tools to synthesize materials. Prerequisite: MUSC 201 or permission of instructor. Three hours per week.

303. THEORY III  
3 hours credit  
Study of tonal and atonal music. Prerequisite: MUSC 303 or permission of instructor. Three hours per week.

304. THEORY IV  
3 hours credit  
Study of cognitive and psycho-motor techniques that involve embouchure, breathing, articulation, fingering combinations and tone production are discussed, practiced and demonstrated. Prerequisite: Music major or permission of instructor. Two hours per week.

305, 306. MUSIC HISTORY I AND II  
3 hours credit each  
A historical survey of musical style from the earliest times to the present. Music History I covers music from Gregorian chant through the Baroque period. Music History II covers music from the Pre-Classical through the Modern periods. Non-Western music is also included in both classes. Analysis, listening and discussion of music in a cultural context is covered. Ability to read music is necessary. Prerequisite: Permission of instructor for non-music majors. Three hours per week. Meets General Education IB.

309. CHORAL TECHNIQUES AND METHODS  
2 hours credit  
Designed to examine techniques for developing appropriate diction, tone, production, intonation, phrasing and interpretation in a choral ensemble. Explores the examination of materials, methods and procedures in organizing school choral ensembles. Prerequisite: Permission of instructor. Two hours per week.

310. CONDUCTING AND SCORE READING  
1 hour credit  
Application of basic conducting patterns in expressing a variety of styles, dynamics and tempi; analysis of conductor's score and rehearsal techniques in both choral and instrumental music. Prerequisite: Permission of instructor. Two hours per week.

311. MUSIC PERCEPTION I  
1 hour credit  
Develops the ability of the musician to visually and aurally perceive fundamentally organized musical events for the purpose of accurately performing and notating them. Focuses on the prominent musical constructs, including all aspects of simple melody, simple harmony and progression and basic rhythm. Prerequisite: MUSC 201 or proficiency equivalence. Corequisite: MUSC 203. Two hours per week.

312. MUSIC PERCEPTION II  
1 hour credit  
Develops the ability of the intermediate musician to visually and aurally perceive complex musical events for the purpose of accurately performing and notating them. Melodic materials outline diatonic chords and large functional progressions embellished by light chromaticism. Harmonic study culminates in inverted diatonic seventh chords being contextualized within tonic, dominant preparation and dominant relationships. Rhythmic materials explore such concepts as syncopation in complex compound meters and two-against-three patterns. Prerequisites: MUSC 203 and 311 or proficiency equivalence. Corequisite: MUSC 204. Two hours per week.

313. MUSIC PERCEPTION III  
1 hour credit  
Develops the ability of the intermediate musician to visually and aurally perceive complex musical events for the purpose of accurately performing and notating them. Melodic materials explore chromatic alterations within the tonal contexts of the secondary functions and modulation. Harmonic study emphasizes secondary functions and modulations to closely
related keys. Meter changes, simple metric modulations and simple polyrhythms are considered. **Prerequisites:** MUSC 204 and 312 or proficiency equivalence. **Corequisite:** MUSC 303. **Two hours per week.**

**314. MUSIC PERCEPTION IV**
**1 hour credit**
Develops the ability of the advanced musician to visually and aurally perceive complex musical events for the purpose of accurately performing and notating them. Melodic materials involve advanced chromaticism, modulations and intervals, as well as modal idioms. Harmonic study culminates in highly chromatic progressions involving secondary leading-tone, Neapolitan and augmented-sixth chords. Rhythmic materials incorporated advanced tuplets, meters with unequal beats, complex meter changes and tempo modulation. **Prerequisites:** MUSC 303 and 313 or proficiency equivalence. **Corequisite:** MUSC 304. **Two hours per week.**

**315. TOPICS IN MUSIC THEORY/ANALYSIS**
**3 hours credit**
Analysis and discussion of a particular past or contemporary musical style, compositional or analytical techniques, composer or aspect of music. May be used as an upper-level music theory requirement for the music major. May be repeated three times for degree credit under different course titles. **Prerequisite:** MUSC 201 or permission of instructor. **Three hours per week.**

**316. TOPICS IN MUSIC HISTORY**
**3 hours credit**
Special topics course. Studies and discussion of a particular past or contemporary period or aspect of music literature. Such topics may include world music, folk music, jazz, rock, blues and modern music. May be used as an upper-level music literature requirement for the music major. May be taken three times under different course titles. **Three hours per week. Meet General Education IB.**

**318. WELLNESS IN PERFORMANCE**
**3 hours credit**
Designed to address the physiological and psychological issues that are encountered by all types of performers. Specific issues concerning injury/illness, wellness concepts, practice techniques and performance preparation will be examined. The course addresses all students who need pedagogical help with performance preparation, regardless of instrument. Open to all students in the area of music, acting, musical theatre, sports, dance and public speaking. **Three hours per week. Meet General Education IB.**

**403. THE HISTORY OF THE PIANOFORTE AND ITS LITERATURE**
**3 hours credit**
Comprehensive study of the piano and its predecessors. Traces the history of keyboard instruments, emphasizing the ways in which the development of the instruments interacted with the development of keyboard literature and performance practices. Includes familiarization with the principal keyboard composers, performers and instrument makers from earliest times to the present. **Prerequisite:** Permission of instructor. **Three hours per week.**

**413. ADVANCED CONDUCTING**
**2 hours credit**
Continues MUSC 310 with review and refinement of skills in conducting. Students develop a common language in which cognitive understanding and psychomotor skills can be aesthetically communicated to an ensemble via the conducting gesture. **Prerequisite:** MUSC 310. **Two hours per week.**

**420. HISTORY OF THE ART SONG**
**3 hours credit**
Study of the history, interpretation and poetic content of Italian, French, German and English art song from the Baroque period to the present. Requires score study as well as textual and musical analysis of representative works with emphasis on compositional styles and performance practices. **Prerequisite:** Permission of instructor. **Three hours per week.**

**425. MUSICAL FORM AND ANALYSIS**
**2 hours credit**
Study of the organizing principles of musical composition and their application to the most prevalent forms through the sonata-allegro and fugue. Analysis of music literature illustrating the basic vocal and instrumental forms and some original composition in these forms. **Prerequisite or Corequisite:** MUSC 303. **Two hours per week.**

**426. ARRANGING FOR VOICES AND INSTRUMENTS**
**2 hours credit**
Fundamental techniques of scoring for various cappella and accompanied voice combinations, special characteristics of each choir of instruments, range of voices, selection on suitable literature for treatment in different ensembles, with considerations of style. **Prerequisite or Corequisite:** MUSC 304. **Two hours per week.**

**435. CHORAL LITERATURE**
**3 hours credit**
Class investigation and evaluation of choral music for all voice combinations appropriate for elementary school through senior high school and adult ensembles. **Prerequisite:** permission of instructor. **Three hours per week.**

**441. INSTRUMENTAL LITERATURE**
**3 hours credit**
Class investigation and evaluation of new methods and materials for bands, orchestras and instrumental ensembles. **Prerequisite:** permission of instructor. **Three hours per week.**

**450. STUDIES IN MUSIC**
**3 hours credit**
Study of a single composer, musical form, performance medium or technique, or topic in music education. Topic varies semester to semester. May be taken twice for credit. Possible prerequisite(s) listed according to topic by semester. **Three hours per week.**

**490. DIRECTED INDEPENDENT STUDY**
**1-3 hours credit**
Tutorial in any area of music; open to seniors and graduate students. May include continuation of a skills development program begun in the lower-level independent study course, or any type of individual research in music not normally included in courses offered by the department, or individual study of an area needed for teacher certification but not offered by the department in the current semester. **Prerequisites:** Approval in writing of department chair and supervising faculty member prior to registration, with the area of study to be specified in writing. May be repeated for a maximum of six credits.

**497. UNDERGRADUATE RESEARCH**
**1-3 hours credit**
Designed to encourage students to pursue an important area of original research in either music history, theory, composition or performance. Allows student to study a subject area in more depth than possible in the traditional classroom setting. Public presentation required. May be repeated for a maximum of six credits. **Prerequisite:** permission of instructor. One to three hours per week.

**498. SENIOR PROJECT**
**3 hours credit**
Required of music majors in senior year of the B.A. in music (traditional) track, but it is open to all music majors. Required
to be a research paper, recital or composition. This project is of the student’s choice in consultation with a faculty mentor. Students will meet weekly with their faculty mentor. Sign up in music office one term in advance. Prerequisites: Senior standing, completion of core and permission of chair. Three hours per week.

503. THE HISTORY OF THE PIANOFORTE AND ITS LITERATURE
3 hours credit
Comprehensive study of the piano and its predecessors. Traces the history of keyboard instruments, emphasizing the ways in which the development of the instruments interacted with the development of keyboard literature and performance practices. Includes familiarization with the principal keyboard composers, performers and instrument makers from earliest times to the present. Prerequisites: MUSC 114, 201 or permission of instructor. Three hours per week.

510. RECENT ISSUES AND TRENDS IN MUSIC EDUCATION
3 hours credit
Student-researched seminar presentations on pertinent current issues in general, vocal and instrumental music education. The seminar presentations will, through researching current trends, arrive at conclusions compatible with current practices in music education. Prerequisites: ELED 419 and SCED 429 or equivalent. Three hours per week.

515. ADVANCED CHORAL CONDUCTING
3 hours credit
Designed for the practicing choral conductor. Includes techniques, stylistic interpretation, repertoire and organizational problem analysis. Prerequisite: MUSC 310 or equivalent. Three hours lecture, two hours laboratory per week.

520. PHILOSOPHICAL AND PSYCHOLOGICAL PERSPECTIVES IN MUSIC EDUCATION
3 hours credit
A review of philosophical tenets and psychological principles as applied to contemporary music education practices, including the standard and recently developed musical aptitude and achievement tests. Prerequisite: Graduate status. Three hours per week.

530. DIRECTED RESEARCH IN MUSIC/MUSIC EDUCATION
3 hours credit
Preparation of optional research project in the M.Ed. program under the direction of departmental faculty. Weekly conference with faculty sponsor.

535. CHORAL LITERATURE
3 hours credit
Class investigation and evaluation of choral music for all voice combinations appropriate for elementary school through senior high school and adult ensembles. Prerequisite: Permission of instructor. Three hours per week.

541. INSTRUMENTAL LITERATURE
3 hours credit
Class investigation and evaluation of new methods and materials for bands, orchestras and instrumental ensembles. Prerequisite: Permission of instructor. Three hours per week.

550. STUDIES IN MUSIC
3 hours credit
Study of a single composer, musical form, performance medium or technique, or topic in music education. Topic varies semester to semester. May be taken twice for credit. Possible prerequisite(s) listed according to topic by semester. Prerequisite: Permission of instructor. Three hours per week.

590. DIRECTED INDEPENDENT STUDY
1-3 hours credit
An individual, graduate tutorial course including research topics not covered in available courses. May be repeated for a maximum of three hours credit under difference course subtitles. Prerequisite: Written specified area of study approved in writing by department chair and supervising faculty member prior to registration.

NURSING (NURS)

310. NURSING CARE OF ADULTS I
3 hours credit
Theory related to nursing care of adults with common health problems who need to maintain or regain optimal levels of functioning. Emphasizes problem solving through use of a variety of resources; examines trends and issues relevant to health care in rural communities. Intended for students admitted to undergraduate nursing program. Corequisite: NURS 311. Three hours per week.

311. NURSING CARE OF ADULTS I CLINICAL
3 hours credit
Application of beginning health assessment skills, nursing knowledge and concepts from the biological and behavioral sciences. Students provide nursing care to adults with common health alterations in acute and long-term care settings and examine trends in gerontological nursing. Intended for students admitted to undergraduate nursing program. Corequisite: NURS 310. Nine hours per week.

312. INTRODUCTION TO PROFESSIONAL NURSING PRACTICE
3 hours credit
Introduces students to professional nursing practice including history, legal, ethical, economic, cultural issues and nursing process. Discussion of roles and responsibilities in communication, documentation and use of clinical technologies with the application through Web, campus-based and selected field experiences. Prerequisites: Admission to nursing major or second bachelor’s degree program, BIOL 334 with C or better. Corequisites: NURS 310, 311, 319. Three hours per week.

319. HEALTH ASSESSMENT
3 hours credit
Functional health assessment of individuals from adolescence through older adulthood. Students practice health assessment skills in clinical settings with people of varied ages, social, cultural and economic backgrounds. Intended for students admitted to undergraduate nursing program. Five hours per week.

325. LIFE AND DEATH ISSUES IN HEALTH CARE: THE ETHICAL PERSPECTIVE
3 hours credit
Identification, analysis and evaluation of contemporary problems that have resulted from new breakthroughs in biomedicine. Topics include physician-patient relationship, euthanasia, social control, experimentation, genetic engineering, the health care system. Emphasis on developing an ethical framework to deal with these and future biomedical issues. Students may not receive credit for both NURS 325 and PHIL 315. Three hours per week. Meets General Education IB.

329. RESEARCH METHODS IN NURSING
3 hours credit
Provides an understanding of the research process with opportunities to develop critical analysis skills in reading current nursing research and opportunities for conducting limited clinical research projects at a beginning level. Intended for students admitted to a nursing program. Prerequisites:
NURS 312, MATH 155 with C or better. Three hours per week.

350. NURSING CARE OF ADULTS II
3 hours credit
Advanced study of the theory necessary for providing nursing care to seriously ill adults from illness through rehabilitation and recovery. Examines trends in provision of critical and rehabilitative care in rural settings and selected issues related to women’s health. Prerequisites: NURS 310, 311, 319 with C or better. Prerequisite/Corequisite: NURS 329. Three hours per week.

351. NURSING CARE OF ADULTS II CLINICAL
3 hours credit
Advanced clinical course in caring for adults as they progress from serious illness through rehabilitation and recovery. Clinical sites include acute care, specialty rotations (ICU, per, CCU), home health agencies and rehabilitation settings. Prerequisites: NURS 310, 311, 319. Corequisites: NURS 329, 350. Nine hours per week.

360. NURSING CARE OF CHILDREN AND ADOLESCENTS: A FAMILY CENTERED APPROACH
3 hours credit
Study of theory related to nursing care of children and adolescents with acute and chronic disorders. Integrates concepts from previous courses in the natural, behavioral and nursing sciences and introduces theories of structure, development and function of families. Prerequisites: NURS 310, 311, 319 with C or better. Prerequisite/Corequisite: NURS 329. Corequisite: NURS 361. Three hours per week.

361. CARE OF CHILDREN AND ADOLESCENTS CLINICAL
2 hours credit
Prepares beginning practitioners to provide nursing care to children, adolescents and their families in a variety of rural health settings. Clinical practice will be guided by the objectives of Healthy People 2010. Prerequisites: NURS 310, 311, 312, 319 with C or better. Prerequisite/Corequisite: NURS 329. Corequisite: NURS 360. Nine hours per week.

370. MATERNAL NEWBORN NURSING: A FAMILY CENTERED APPROACH
3 hours credit
Study of theory related to nursing care of childbearing families in rural communities. Explores social and health care issues related to changing needs of women across the life span. Prerequisites: NURS 310, 311, 319 with C or better. Prerequisite/Corequisite: NURS 329. Corequisite: NURS 371. Three hours per week.

371. MATERNAL NEWBORN NURSING CLINICAL
3 hours credit
Provides nursing care to the childbearing family in primary and acute care settings. Applies selected theories related to structure, development and function of families. Clinical practice will be guided by the objectives of Healthy People 2000. Prerequisites: NURS 310, 311, 319. Corequisites: NURS 329, 370. Nine hours per week.

380. PSYCHIATRIC-MENTAL HEALTH
3 hours credit
Study of theory related to the prevention and nursing care of individuals and families with psychosocial problems. Focuses on communication with clients in community and hospital settings with emphasis on mental illness in rural areas. Considers mental health needs of all age groups with special regard for cultural differences. Prerequisites: NURS 310, 311, 312, 319, 329 with C or better. Corequisite: NURS 381. Three hours per week.

381. PSYCHIATRIC-MENTAL HEALTH CLINICAL
3 hours credit
Clinical application of nursing theory and process focused on the prevention and nursing care of psychosocial problems in individuals and families. Focus on therapeutic communication with clients in a psychiatric hospital and clients with psychosocial needs in the community. Prerequisites: NURS 310, 311, 312, 319, 329 with C or better. Corequisite: NURS 380. Nine hours per week.

405. NURSING EXTERN SEMINAR
3 hours credit
Supervised practicum to assist students in applying the nursing process. Explores concerns of the beginning practitioner including role conflict and role transition, clarification of values and reality shock. Students refine skills in assertiveness, clinical decision making, application of change theory and conflict resolution, and participate in activities of employed registered nurses. Placement in a health care agency with one-to-one RN preceptorship and clinical contact of 30 hours per week. Prerequisites: NURS 350, 351 with a C or better.

408. COMPLEMENTARY AND ALTERNATIVE APPROACHES TO HEALTH PROMOTION
3 hours credit
An introductory overview of complimentary modalities to the promotion of wellness through a holistic approach. The dynamic interplay between each person’s physical, psychological, social and spiritual elements will be discussed. Opportunities for experiential learning and practice of selected modalities during designated class time will be provided. Additional exploration of individual areas of interest will be encouraged, culminating in a final project presentation to class participants. Students may not receive credit for both NURS 408 and 508. Prerequisite: Junior standing or permission of instructor. Three hours per week.

415. SPECIAL TOPICS IN NURSING
1-3 hours credit
Study of a selected area of nursing. Topics may vary semester to semester. Provides an opportunity for students to experience the promotion of wellness. Topics may be repeated for credit under different subtitles. One to three hours lecture, zero to two hours laboratory per week.

422. NURSING OF CHILDBEARING AND CHILDRearing FAMILIES
3 hours credit
Focus on nursing care to childbearing and childrearing families, and exploration of current, applicable research. Focus on childbearing and participation of family members emphasized. Topics include conditions that place the client at risk and selected acute and chronic childhood disorders. Prerequisites: NURS 310, 311, 312, 319 with C or better. Corequisite: NURS 423. Three hours per week.

423. NURSING OF CHILDBEARING AND CHILDRearing FAMILIES CLINICAL
3 hours credit
Focus on use of nursing process with childbearing and childrearing families in rural community settings and in acute care settings, both rural and urban. Emphasis on assisting clients in promoting, maintaining and/or regaining health. Students focus on clinical practice as they develop knowledge, psychomotor skills and professional values. Developmental and family theories stressed. Prerequisites: NURS 310, 311, 312, 319 with C or better. Corequisite: NURS 422. Nine hours per week.

430. COMMUNITY HEALTH NURSING: A RURAL PERSPECTIVE
3 hours credit
Focus on the theory of health of families, aggregated and communities with complex needs. Explores political, ethical,
440. SENIOR SEMINAR  
3 hours credit  
Provides a conceptual understanding of leadership and management processes in the health care system. Explores past, present and emerging roles of the professional nurse including political, economic and professional issues.  
Prerequisites: NURS 310, 311, 329, 350, 351, 360, 361, 370, 371, 380, 381 with C or better.  
Corequisite: NURS 430.  
Three hours per week.

441. INTERNSHIP  
3 hours credit  
Precepted practicum with emphasis on application of nursing process, theory and skills in nurse generalist practice, integrated nursing knowledge, values and skills in caring for groups of clients while developing leadership and management strategies.  
Prerequisites: NURS 310, 315, 316, 317, 381, 383, 385 with C or better.  
Corequisite: NURS 440.  
Two hours per week.

442. NURSING LEADERSHIP AND MANAGEMENT  
2 hours credit  
Explores roles in nursing within the health care system with particular emphasis on leadership and management functions. Provides students with a conceptual understanding of the social, political, legislative and economic forces shaping the U.S. health care system and its impact on the rural environment.  
Prerequisites: NURS 310, 311, 312, 319, 329, 350, 351, 422, 423 with C or better.  
Prerequisites/Corequisites: NURS 380, 381, 430, 431, 443.  
Two hours per week.

443. NURSING LEADERSHIP PRACTICUM  
2 hours credit  
Emphasizes integration of nursing knowledge, values and skills in caring for groups of clients. Students experience various professional nursing roles and apply leadership and management strategies.  
Prerequisites: NURS 310, 311, 312, 319, 329, 350, 351, 422, 423 with C or better.  
Prerequisites/Corequisites: NURS 380, 381, 430, 431, 442.  
Six hours per week.

454. HEALTH EDUCATION OF CLIENTS  
3 hours credit  
Theoretical content and practical application of the principles and methodologies of effective health education of individuals, families and groups. Emphasis on use of the teaching-learning process in assisting client adaptation and promoting quality health care. Through use of a micro-teaching laboratory the student can demonstrate and analyze a variety of teaching skills. Development of teaching plans, behavioral objectives and evaluation tools also stressed.  
Three hours per week.

456. PHARMACOTHERAPEUTICS  
3 hours credit  
Nursing interventions relating to application of pharmacotherapeutic principles in assisting client adaptation in primary, secondary and tertiary health care settings. Special emphasis on drug interactions, drug dependence, toxicity.  
Three hours per week.

457. CULTURAL CONSIDERATIONS FOR NURSING  
2 hours credit  
A basis for application of concepts, theories and methodologies from transcultural nursing to the practice of the health professional. Particular emphasis on the influence of culture on human response to health and illness.  
Prerequisite: Junior standing or permission of instructor.  
Two hours per week.

485. SCHOOL HEALTH  
3 hours credit  
Current issues relevant to the health of school-age children and adolescents. Topics include roles of teachers and health professionals, current health problems and approaches to specific health problems. Intended for students in education and health-related professions.  
Prerequisite: PSYC 300 or EDUC 300 or permission of instructor.  
Three hours per week.

508. COMPLEMENTARY AND ALTERNATIVE APPROACHES TO HEALTH PROMOTION: APPLICATIONS  
3 hours credit  
Explores the application of complementary modalities to the promotion of wellness through a holistic approach. The dynamic interplay between each person’s physical, psychological, social and spiritual elements will be discussed. Opportunities for experiential learning and practice of selected modalities during designated class time will be provided. Additional exploration of individual areas of interest will be encouraged, culminating in a final project presentation to class participants. Students will also integrate research findings reported in the literature. Students may not receive credit for both NURS 408 and 508.  
Prerequisite: Graduating standing or permission of instructor.  
Three hours per week.

512. ADVANCED HEALTH ASSESSMENT FOR FAMILY NURSE PRACTITIONERS  
4 hours credit  
Provides learning for a comprehensive physical, psychosocial, developmental, occupational and cultural assessment as foundational to advanced nursing practice. Application of history-taking and interviewing skills essential for a comprehensive examination are demonstrated. Physical assessment skills focus on distinguishing normal findings from abnormal findings. Analyzes history, physical examination and laboratory data to formulate an accurate assessment of clients’ status and establish priorities of care.  
Prerequisite: Admission to the master's program or permission of instructor.  
Prerequisite/Corequisite: BIOL 552.  
Two hours lecture, 10 hours clinical practice per week, for a total of 150 hours.

514. ISSUES IN ADVANCED PRACTICE NURSING  
3 hours credit  
Focuses on transition into the advanced practice nurse role including ethical issues, standards of care and the delivery of health care in rural settings. The organization of health care delivery systems, health care policy and the economic implications of health care are explored. Students develop their roles as advocates for change in the health care delivery system. Clinical practice guidelines, protocols and/or collaborative agreements are developed for the advanced practice nurse. Information technology is used where appropriate in an advanced practice role.  
Three hours per week.

515. EPIDEMIOLGY  
3 hours credit  
Focuses on epidemiology as the basic science of disease
Nursing

516. FAMILY NURSING
5 hours credit
Explores advanced theoretical and empirical knowledge related to families, with special attention to families in rural settings. Emphasis on incorporation of this knowledge into the advanced application of the nursing process with the rural family as a client to improve family health. Three hours lecture, six hours clinical practice per week, for a total of 90 hours.

522. PHARMACOTHERAPEUTICS
3 hours credit
Provides advanced-practice nurses with knowledge of pharmacotherapeutics for acute and chronic conditions. Focuses on knowledge and skills necessary to assess, diagnose and manage common health problems. Legal, socioeconomic and client-safety considerations are discussed. Critical thinking is employed in the analysis and determination of pharmacological regimens. Prerequisites: BIOL 552 and admission to an advanced practice track of the graduate nursing program or permission of the instructor. Three hours per week.

525. HEALTH CARE SYSTEM
3 hours credit
Explores the structure and functions of the health care system and the legal, ethical and economic forces that impact it. Special attention is given to health insurance and managed care, the formulation and impact of health policy and the context in which policy decisions are made. Prerequisite: Admission to a graduate program or permission of the instructor. Three hours per week.

526. HEALTH CARE INFORMATICS
3 hours credit
Introduces the student to the field of health care informatics via a Web-based instructional format. History of health care informatics, interrelated concepts such as classification systems and languages and ethical and confidentiality concerns are explored. Informatics applications in clinical practice, education and administration are discussed. Prerequisite: Admission to a graduate program or permission of instructor. Three hours per week.

538. NURSING THEORIES
3 hours credit
Examines the nature of concepts, models and theories in the context of scientific development and the historical development of nursing knowledge. A comparative analysis of evolving nursing theories will be made in regard to meeting criteria for theory building; major concepts used; theoretical perspective used; testability and practicality for application with the nursing process in clinical practice, teaching and research. Three hours per week.

542. QUALITATIVE RESEARCH IN HEALTH CARE
3 hours credit
Focuses on the importance of the theoretical foundations of research and on qualitative methods of scientific inquiry. Emphasis is placed on the accumulation of scientific evidence in health care and on the critical analysis and communication of evidence related to a specific topic. Prerequisite: Admission to a graduate program or permission of the instructor. Three hours per week.

544. QUANTITATIVE RESEARCH IN HEALTH CARE
3 hours credit
Focuses on quantitative research methods as a foundation for evidence-based health care. Includes problem identification, formulation of hypotheses, research design, sampling analyses and interpretation of quantitative data. Provides practice using a statistical package as a tool to analyze quantitative research data. Research findings are communicated both orally and in writing to health professionals using current technology. Prerequisite/Corequisite: MATH 502.

555. CULTURAL CONSIDERATIONS FOR NURSING
2 hours credit
A basis for application of concepts, theories and methodologies from transcultural nursing to the practice of the health professional. Particular emphasis on the influence of culture on human response to health and illness. Two hours per week.

556. CLINICAL NURSE SPECIALIZATION
5 hours credit
Focuses on the diverse clinical and organizational skills necessary for functioning effectively as a clinical nurse specialist in family nursing in varied clinical settings of a rural area. Affords the opportunity to gain expertise in conjunction with a qualified advanced nurse clinician role model and to develop in the leadership role as a family advocate and change agent. Two hours seminar, 12 hours clinical practicum per week for a total of 180 hours.

557. HOME HEALTH NURSING
5 hours credit
Prepares nurses to assume advanced practice roles in home health care. Focus will be on the roles of practice, education, consultation, research and administration of the advanced practice home health clinical specialist in the provision of care to clients in residential and community settings. Clients will consist of individuals, families and groups who have post-hospitalization stabilization needs, permanent disabilities, long-term physical or mental health needs, or terminal illnesses. Issues and trends including economics of home care, entrepreneurship and the assurance of quality outcomes will also be addressed. Prerequisite: NURS 516. Prerequisites/Corequisites: NURS 512, 522. Two hours lecture, 12 hours clinical per week for a total of 180 hours.

558. ADULT HEALTH CARE MANAGEMENT
5 hours credit
Focuses on primary care of adult clients including health promotion and disease prevention within the context of the family. Incorporates critical thinking and clinical reasoning to establish diagnoses for and provide therapeutic management of adult clients with common short-term and chronic stable health problems. Emphasizes quality and cost-effective care of diverse populations in a wide variety of settings. Prerequisite: NURS 512. Prerequisite/Corequisite: NURS 522. Two hours lecture, 12 hours clinical per week for a total of 180 hours.

559. WOMEN’S AND CHILDREN’S HEALTH CARE MANAGEMENT
5 hours credit
Focuses on primary care of women and children including health promotion and disease prevention within the context of the family. Incorporates critical thinking and clinical reasoning to establish diagnoses for and provide therapeutic management of women and children with common short-term and chronic stable health problems. Includes care of women during normal pregnancy and the postpartum period. Emphasizes quality and cost-effective care of diverse populations in a wide variety of settings. Prerequisites/Corequisites: NURS 512, 522. Two hours lecture, 12 hours clinical per week for a total of 180 hours.
560. INDEPENDENT STUDY
1-3 hours credit
Focused study on a specific area of advanced practice nursing agreed upon by the student and the faculty. May include preliminary work directed toward a thesis/capstone area of interest, a specialized area of study, or clinical practice. May be taken more than once under different course subtitles for a maximum of six hours credit. Prerequisite: Written permission of the faculty who will direct the study. One to three hours per week.

561. HEALTH CARE MANAGEMENT SEMINAR
3 hours credit
Organized around major management functions, this course focuses on development of theoretical and practical knowledge to prepare students for advanced management responsibilities in diverse health care settings. Explores professional and organizational dynamics, including an overview of management theories, organizational behavior, marketing of health care services, resource analysis and allocation, conflict management, performance improvement, quality management and implementing planned change. Prerequisite: NURS 525. Corequisite: NURS 562. Three hours per week.

562. HEALTH CARE MANAGEMENT PRACTICUM
3 hours credit
Focuses on the development of a personal style of management with requisite knowledge, skills and abilities. Uses the mentor concept as a framework for management learning experiences in varied health care organizations. Prerequisite: NURS 525. Corequisite: NURS 561. Nine hours per week/Practicum.

571. HEALTH CARE LEADERSHIP SEMINAR
3 hours credit
Builds upon a management focus and makes the distinction between management and leadership models with emphasis on the evolution of leadership concepts and their application in health care organizations. Through examinations of the characteristics of great leaders, the course explores strategies for the identification and development of leadership skill in one’s self and others. Power and legitimacy are explored as are ethical dilemmas and their resolution. Methods of productive interpersonal communication are stressed. Prerequisites: NURS 525, 561, 562. Corequisite: NURS 572. Three hours per week.

572. HEALTH CARE LEADERSHIP PRACTICUM
3 hours credit
Focuses on the development of a personal leadership style with requisite knowledge, skill and abilities. Includes mentored experiences in health care organizations and the practice of leadership with a team. Prerequisites: NURS 525, 561, 562. Corequisite: NURS 571. Nine hours per week/Practicum.

580. SPECIAL TOPICS IN NURSING
1-3 hours credit
Intensive study of a selected topic relevant to nursing in rural areas. May be taken twice under different course subtitles. Prerequisite: Permission of the graduate nursing program faculty member. One to three hours lecture, zero to two hours laboratory per week.

585. SCHOOL HEALTH
3 hours credit
Current issues relevant to the health of school-age children and adolescents. Topics include roles of teachers and health professionals, current health problems and approaches to specific health problems. Intended for students in education and health-related professions. Prerequisite: Graduate standing. Three hours per week.

590. THESIS
1-3 hours credit
Provides an opportunity for the master’s level student to conduct formal research related to nursing. Reflects a culminating research study as an independent project under the direction of a thesis chair and committee. Incorporates knowledge from research methodology and analysis learned throughout the program. Requires that the student demonstrate critical thinking, a proficiency in oral and written communication, and use of appropriate information technology. Traditional defense of thesis required. May be repeated; no limit to the number of repeats. Prerequisites: MATH 502, NURS 544, and permission of the instructor.

591. CAPSTONE PROJECT
1-3 hours credit
Provides an opportunity for the master’s level student to pursue a scholarly study of a clinical case, a topic or an issue relevant to the student’s advanced practice role. Reflects a culminating synthesis of knowledge from graduate courses as an independent project under the direction of a project chair and committee. Requires that the student demonstrate critical thinking, a proficiency in oral and written communication, and use of appropriate information technology. May be repeated; no limit to the number of repeats. Prerequisites: MATH 502, NURS 544, and permission of the instructor.

PHILOSOPHY (PHIL)

101. INTRODUCTION TO PHILOSOPHY
3 hours credit
Invites students to philosophize, asking and creatively responding to basic questions about human existence which are usually left unasked, e.g., are we free, what is the self, what value should we live for? Three hours per week. Meets General Education IB.

103. CRITICAL THINKING
3 hours credit
Develops abilities to reason effectively, analyze problems, identify issues, critically evaluate evidence, argue logically and reach and defend justifiable conclusions. Three hours per week. Meets General Education IB.

202. INTRODUCTION TO SYMBOLIC LOGIC
3 hours credit
Provides a basic introduction to logic, emphasizing modern symbolic methods. Nature of formal deductive proof is given special attention. Three hours per week. Meets General Education IB.

203. ETHICS
3 hours credit
Helps students develop a personal framework for ethical action. Emphasis on identification of ethical theories; applications to contemporary problems utilized as exercises to strengthen each student’s own ethical position. Three hours per week. Meets General Education IB.

206. CONTEMPORARY MORAL ISSUES
3 hours credit
Examines the major moral and political problems of our age as encountered in the areas of politics, law, business, criminal justice, etc. Students develop political and moral frameworks from which to analyze and evaluate the issues. Three hours per week. Meets General Education IB.

209. PHILOSOPHY AND CULTURE
3 hours credit
A reflection on the significance of culture and the difficulties posed when one seeks to translate other cultural perspectives into one’s own world view. Emphasis is on cultivating
knowledge of particular cultures outside the American scene, as well as on the struggle within our own nation to form a culture in which intercultural relationships can flourish. **Three hours per week. Meets General Education IB.**

**220. WORK AND THE PUBLIC GOOD**
3 hours credit
Discussion of work, career, vocation in light of the public good. Analyzes the crisis of meaning that work presents in a post-industrial society. UnCOVERS the underlying essence of one's life work as it relates to the public good through discussion of specific fields of work and related ethical problems. **Three hours per week. Meets General Education IB.**

**300. PHILOSOPHY OF THE ARTS**
3 hours credit
Analysis of the complexity of problems concerning the nature of beauty and artistic value. Topics include attempts to define "the aesthetically pleasing," the role of formal and sensuous components in a work of art, the relationships of art to emotion and to intellect, the debate about the "moral" component of art, the dialogue between the artist and the beholder, the nature of value judgments and role of the critic. **Three hours per week. Meets General Education IB.**

**301. VIOLENCE AND NONVIOLENCE**
3 hours credit
Explores and analyzes the philosophical meaning of violence and nonviolence, the ethics of just and unjust wars, and the moral efficacy of pacifism. Applies to issues such as capital punishment, nonviolent resistance and specific wars. **Three hours per week. Meets General Education IB.**

**303. THE PHILOSOPHY OF EDUCATION**
3 hours credit
Addresses questions regarding the meaning and purpose of education such as: Can virtue be taught and learned? What is the role of education in a pluralistic culture and democratic society? What does the search for truth involve and how can teachers and students collaborate in it? **Three hours per week. Meets General Education IB.**

**304. PHILOSOPHY OF HUMAN NATURE**
3 hours credit
Exploration of the various dimensions of human experience, from the active life of work and politics to the contemplative life of philosophy and religion. Comparisons and contrasts of modern frameworks such as behaviorism, existentialism and Marxism with the classical and medieval views of human nature. May not receive credit for both PHIL 215 and 304. **Three hours per week. Meets General Education IB.**

**305. POLITICAL PHILOSOPHY**
3 hours credit
Examines political reality as the public place where people come together to speak and act, freely and equally, and thereby become more fully human. Students develop a model of political speech and action (from a dialogue with the tradition) and apply that model to contemporary political problems. **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week.**

**306. ANIMALS AND ETHICS**
3 hours credit
Examines fundamental moral questions concerning our interactions with nonhuman animals. Attention to what we can know about the mental and emotional capacities of animals, to whether animals have rights, and to human-animal relationships. **Three hours per week.**

**308. ANCIENT PHILOSOPHY**
3 hours credit
Study of philosophy in the Greco-Roman world from the Pre-Socratics to the Neo-Platonists. Special emphasis on Plato and Aristotle. **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week.**

**309. MEDIEVAL PHILOSOPHY**
3 hours credit
The absorption of Greek philosophical concepts by Christianity, Judaism and Islam. Study of the great medieval systems constructed to strengthen revealed religions and the skeptical revolts against them. Augustine to the medieval mystics. **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week.**

**310. PHILOSOPHICAL TOPICS**
3 hours credit
Examines in depth a philosophical theme or problem. Content varies semester to semester. May be repeated under different subtitles. **Three hours per week.**

**311. MODERN PHILOSOPHY**
3 hours credit
Surveys the development of philosophy from the Renaissance to the 19th century and includes a study of Descartes, Hume, Kant and Hegel. May not receive credit for both PHIL 302 and 311. **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week.**

**312. INTRODUCTION TO ASIAN PHILOSOPHY**
3 hours credit
Examines some of the main philosophical ideas of Indian, Tibetan, Japanese and Chinese thought. Emphasis is on the following questions: Is Asian thought really fundamentally different from Western thought? Discussion of how Asian Philosophers have attempted to answer questions such as: “How do I know that I know something?”, “What is the nature of the self?” and “What is good?” **Three hours per week. Meets General Education IB.**

**313. STUDIES IN THE HISTORY OF PHILOSOPHY**
3 hours credit
Intensive study of a major thinker, period or theme in the history of philosophy. May be repeated for credit under different subtitles. **Prerequisite:** One philosophy course. **Three hours per week.**

**314. SEMINAR IN THE HISTORY OF PHILOSOPHY**
3 hours credit
Intensive study of an issue or theme that traces its development throughout the history of philosophy. **Prerequisites:** Two philosophy courses and permission of instructor. **Three hours per week.**

**315. LIFE AND DEATH ISSUES IN HEALTH CARE: THE ETHICAL PERSPECTIVE**
3 hours credit
Identification, analysis and evaluation of contemporary problems resulting from the new breakthroughs in biomedicine. Topics include physician-patient relationship, euthanasia, experimentation, social control, genetic engineering, the health care system. Emphasis on developing an ethical framework to deal with these and future biomedical issues. Students may not receive credit for both NURS 325 and PHIL 315. **Three hours per week. Meets General Education IB.**

**316. PHILOSOPHY AND FEMINISM**
3 hours credit
Examines the theoretical basis of several traditions which define women as “other” or “special” or “different from” the human standard (male), along with some of the social and personal consequences this has. Also looks at contemporary redefinitions of what it is to be female/male/human and the rights and obligations that logically follow from legal and social recognition of woman's full humanity. **Three hours per week. Meets General Education IB.**

**318. ENVIRONMENTAL RESPONSIBILITY**
3 hours credit
Focus on two central questions: How does our manner of encountering nonhuman entities affect how they become
meaningful for us? How might we best formulate our obligations to the earth’s diverse ecosystems and the creatures populating them? Three hours per week. Meets General Education IB.

319. LAW AND MORALITY
3 hours credit
Examination of the philosophical issues that arise in thinking about the law, such as: What is the relationship between morality and the law? What kind of equality does the Constitution guarantee? What makes an act a crime? Classic and contemporary theories of law, as well as recent legal cases, are also discussed. Three hours per week. Meets General Education IB.

320. AFRICAN-AMERICAN PHILOSOPHY
3 hours credit
Focuses on the philosophical issues addressed in African-American thought, including the meaning of human dignity, whether rage or love is the appropriate response to injustice, the role of race in developing one’s sense of personal identity, the nature of political community, and the importance of music, poetry, etc. as expressions of one’s self. Three hours per week. Meets General Education IB.

321. LOVE, MARRIAGE AND FAMILY: PHILOSOPHICAL REFLECTIONS
3 hours credit
Examines the nature of friendship, romantic love, parental responsibility and the relationship of sexuality and love. Special emphasis given to the moral responsibilities involved in these areas of life. Three hours per week. Meets General Education IB.

322. EXISTENTIALISM
3 hours credit
Close look at the basic human problems of self, God and others as seen from the existentialist perspective. Major themes of alienation, authenticity, freedom, commitment and dread are traced from their roots in the 19th century philosophies of Kierkegaard and Nietzsche to contemporary expressions by Sartre, Camus, Heidegger and Buber, et al. May not receive credit for both PHIL 322 and 403. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

323. BUDDHIST PHILOSOPHY
3 hours credit
Provides a general introduction to the Buddhist philosophy of the Indian subcontinent, Tibet, China and Japan. Discusses the teachings of the historical Buddha before concentrating on a number of Buddhist schools that developed from these teachings. Emphasis will be on Buddhist metaphysics, epistemology, ethics and philosophy of mind. Three hours per week. Meets General Education IB.

324. TOPICS IN ASIAN PHILOSOPHY
3 hours credit
Examines in depth a particular theme or problem in Asian philosophy. The content varies from semester to semester. May be repeated once under a different subtitle. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

325. PHILOSOPHY OF RELIGION
3 hours credit
Promotes understanding of religious experience by focusing on a variety of its aspects, such as worship, prayer, vocation, mysticism, secularity and the encounter with evil. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

326. A PHILOSOPHY OF REVERENCE
3 hours credit
Studies Plato’s text, the Republic, and its major themes: the nature of wisdom, justice, art, good government, the soul and obedience to transcendent values. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

328. TRAGIC AND COMIC VIEWS OF LIFE
3 hours credit
Examines various kinds of comic experience. Special attention given to the relationship between tragedy and comedy and to absurdist and religious views about the meaning of human life as a whole. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

330. THEORY OF KNOWLEDGE
3 hours credit
Examines the sources, types, methods, structure and validity of knowledge. A study is made of classical, modern and contemporary sources of meaning, truth and perception giving students an acquaintance with, and appreciation of, the scope and limits of knowledge. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

335. PHILOSOPHY OF SCIENCE
3 hours credit
Critical examination of the philosophical problems common to the natural sciences, such as the nature of scientific laws and theories, and problems involved in scientific explanation. May not receive credit for both PHIL 335 and 408. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

399. HONORS INTERDISCIPLINARY STUDIES
3 hours credit
Examines topics of broad trans-disciplinary scope and interest in conjunction with one or more other departments. Cross-listed with the departments of Sociology and Political Science; may be taken twice for credit under different subtitles. Prerequisite: Permission of Honors Program director. Three hours per week.

402. THE PROBLEM OF GOD
3 hours credit
Involves students in thinking through the ultimate questions philosophy asks about God’s nature and existence. Attention given to a variety of themes, including the relationship between God and nature, the personhood of God, atheism and the meaningfulness of human speech about God. Prerequisite: One philosophy course or permission of instructor. Three hours per week.

405. CONTEMPORARY CONTINENTAL PHILOSOPHY
3 hours credit
Treats questions raised by philosophers writing in the wake of Heidegger and the existentialist tradition. Areas of discussion include feminism, foundationalism, embodiment, psychoanalysis, deconstruction, epistemology, ethics and theology. Prerequisites: Two philosophy courses or permission of instructor. Three hours per week.

408. METAPHYSICS
3 hours credit
Examines a variety of philosophical theories which propose a portrait of reality as a whole and are evaluated in terms of their ability to respond to ultimate questions we raise about being, matter and the absolute. Considers whether it is possible for us to achieve a comprehensive knowledge of reality. May not receive credit for both PHIL 306 and 408. Prerequisites: Two philosophy courses or permission of instructor. Three hours per week.

450. PHILOSOPHICAL CONCEPTS IN LITERATURE
3 hours credit
Examines a philosophical theme (e.g., existentialism, tragedy) as reflected in works of literature. Theme varies semester to semester. Prerequisites: ENGL 101, 102 and
one philosophy course or permission of instructor. Three
hours per week.

475. SEMINAR IN PHILOSOPHY
3 hours credit
Offers advanced students in philosophy an opportunity to
research and reflect on an issue or theme more thoroughly
and intensely than is possible in an ordinary course. Content
varies semester to semester. May be repeated for credit with
faculty approval. Prerequisite: Permission of instructor.
Three hours per week.

490. INDEPENDENT STUDY
1-3 hours credit
Tutorial course in a specific problem of philosophy, a particu-
lar philosopher or a particular period of philosophy. Open to
junior and senior students, conditional on faculty member’s
consent. May be repeated for credit with faculty approval.
Prerequisite: Permission of instructor. Up to three hours
per week.

497. RESEARCH IN PHILOSOPHY
3 hours credit
Provides advanced philosophy students an opportunity to
study an area of philosophy in more depth than is possible in
the traditional classroom setting. Working with a faculty men-
tor, students will choose an area of philosophical inquiry,
study the relevant philosophical literature in that area and
produce a substantial paper worthy of presentation at an
undergraduate philosophy conference. Course may be taken
twice for credit. Prerequisite: Junior status. Three hours per
week.

502. THE PROBLEM OF GOD
3 hours credit
Involves students in thinking through the ultimate questions
philosophy asks about God’s nature and existence. Attention
given to a variety of themes, including the relationship
between God and nature, the personhood of God, atheism
and the meaningfulness of human speech about God.
Prerequisite: One philosophy course or permission of
instructor. Three hours per week.

550. PHILOSOPHICAL CONCEPTS IN LITERATURE
3 hours credit
Examines a philosophical theme (e.g., existentialism, tragedy) as reflected in works of literature. Theme varies
semester to semester. Prerequisite: One philosophy course
or permission of instructor. Three hours per week.

575. SEMINAR IN PHILOSOPHY
3 hours credit
Offers advanced students in philosophy an opportunity to
research and reflect on an issue or theme more thoroughly
and intensely than is possible in an ordinary course. Content
varies semester to semester. May be repeated for credit with faculty approval. Prerequisite: Permission of instructor. Three hours per week.

590. INDEPENDENT STUDY
1-3 hours credit
Tutorial course in a specific problem of philosophy, a particu-
lar philosopher or a particular period of philosophy. Open to
junior and senior students, conditional on faculty member’s
consent. May be repeated for credit with faculty approval.
Prerequisite: Permission of instructor. Up to three hours
per week.

PHYSICAL EDUCATION (PHEC)

103. SELF-DEFENSE
1 hour credit
Application of knowledge of pressure points and leverages in
the protection of one’s self. Two hours per week. (P/F)

105. BEGINNING SWIMMING
1 hour credit
Fundamental skills of swimming with emphasis on basic
stroke and safety techniques. Two hours per week. (P/F; fall
semester only)

106. PERSONALIZED HEALTH/FITNESS
3 hours credit
Study and practice of principles that affect human health.
Emphasizes on physical fitness, stress management, nutrition
and weight control with specific personalized techniques for
optimizing health. Four hours per week. Meets General
Education IV.

107. PERSONALIZED HEALTH/FITNESS II
1 hour credit
Provides students opportunities to explore additional physical
activity experiences to achieve the health/fitness goals estab-
lished in PHEC 106. Prerequisite: PHEC 106. Two hours
per week. (P/F)

108. INTRODUCTION TO WELLNESS AND FITNESS
3 hours credit
Study and practice of wellness and fitness principles.
Emphasis on demonstrating, implementing and assessing fit-
ness components, such as cardiorespiratory endurance,
muscular strength and endurance, flexibility and body compo-
sition. Provides physical education and health professionals
with skills and knowledge for lifelong wellness activities.
Meets General Education IV for athletic training, health edu-
cation and physical education majors. Prerequisite: Athletic
training, exercise science, health education and physical edu-
cation majors only. Two hours lecture, three hours labora-
tory per week.

121. BASKETBALL
1 hour credit
Fundamental skills, techniques, rules and strategy of basket-
ball. Two hours per week. (P/F; spring semester only)

123. BEGINNING GOLF
1 hour credit
Fundamental skills, techniques, rules and strategy of golf.
Two hours per week. (P/F)

125. RACQUETBALL
1 hour credit
Fundamental skills, rules and strategy of racquetball tech-
niques. Two hours per week. (P/F)

126. BEGINNING TENNIS
1 hour credit
Fundamental skills, techniques, rules and strategy of tennis.
Two hours per week. (P/F)

146. VOLLEYBALL
1 hour credit
Fundamental skills, techniques, rules and strategy of volley-
ball. Two hours per week. (P/F)

147. BADMINTON
1 hour credit
Fundamental skills, techniques, rules and strategy of bad-
minton. Two hours per week. (P/F)
150. INTERMEDIATE TENNIS
1 hour credit
Thorough coverage of intermediate skills, strategy, rules and scoring through participation in the sport. Two hours per week. (P/F)

170. INTERMEDIATE SWIMMING
1 hour credit
Refines and increases the student's fundamental skills of swimming. Covers crawl stroke, elementary backstroke, breast stroke, sidestroke, inverted breast stroke, back crawl stroke, trudgenon, double trudgenon, trudgenon crawl, butterfly stroke and basic diving skills. Prerequisite: PHEC 105 or permission of instructor. Two hours per week. (P/F)

203. LIFEGUARD TRAINING
1 hour credit
Study and application of the most current aquatic standards and techniques with emphasis on professionalism, prevention, surveillance, victim recognition, equipment-based rescues, CPR and aquatic-specific first aid training. American Red Cross certification awarded to those who meet requirements. Prerequisite: PHEC 170 or permission of instructor. Two and one-half hours per week.

205. WATER SAFETY INSTRUCTOR
2 hours credit
Preparation for teaching aquatic skills. Emphasis on skill development, learning theories, teaching methods and aquatic safety. Prerequisite: PHEC 170 or permission of instructor. Two and one-half hours per week.

210. SCUBA DIVING
3 hours credit
Fundamental skills, techniques, knowledge and laws of scuba diving. Emphasis on safety and recreational diving. Prerequisite: PHEC 105 or permission of instructor. Three hours per week.

213. PREVENTION AND MANAGEMENT OF SPORTS INJURIES
3 hours credit
Basic first aid and emergency concepts focusing on the prevention, recognition, initial treatment and management of athletic-related injuries. Principles and techniques are presented in a format that emphasizes practical applications of skills. This course is designed for athletic coaches and personal trainers. May not receive credit for both PHEC 213 and ATTR 213. Three hours per week.

220. CANOEING AND KAYAKING
3 hours credit
This experiential education course introduces basic skills of flat water canoeing and whitewater kayaking while running rapids of moderate difficulty. Instruction covers paddling skills, equipment and selection, water reading, river tactics, trip planning, safety practices, rescue techniques, tides and currents, wind and weather and hypothermia. Prerequisites: PHEC 240, HLTH 102 or permission of instructor. Three hours per week.

229. TECHNIQUES AND STRATEGIES OF ADVANCED GYMNASTICS
1 hour credit
Application of basic tumbling skills and fundamentals of gymnastics. Analysis of teaching methods, lesson planning and progression. Emphasis on advanced skills and organization. Two and one-half hours per week.

235. FOUNDATIONS OF PHYSICAL EDUCATION
3 hours credit
Introduction to the historical and philosophical foundations of physical education, fitness and sport. Includes instructional and self-assessment strategies in preparation for engagement in professional practice. Three hours per week.

240. TECHNIQUES AND STRATEGIES OF AQUATIC PROGRAMS
1 hour credit
Application of fundamental skills in basic swimming strokes, diving skills and water safety. Analysis of teaching methods, history and introduction to scope of aquatics and aquatic programming. Prerequisite: PHEC 170 or permission of instructor. Two and one-half hours per week. (fall semester only)

260. TEAM SPORTS ACTIVITIES
3 hours credit
Overview of selected sports and activities designed for group participation. Emphasis on knowledge and competencies which prepare students to become effective teachers of physical activities. May not receive credit for both PHEC 344 and 260. Prerequisites: PHEC 275 and admission to Physical Education Teaching Track. Three hours per week. (spring semester only)

261. INDIVIDUAL AND DUAL-SPORT ACTIVITIES
3 hours credit
Overview of a number of individual activities and sports. Emphasis on knowledge and competencies which prepare students to become effective teachers of physical activities. May not receive credit for both PHEC 345 and 261. Prerequisites: PHEC 275 and admission to Physical Education Teaching Track. Three hours per week.

275. INSTRUCTIONAL STRATEGIES FOR PHYSICAL EDUCATION
3 hours credit
Introduction to management and organization strategies specific to teaching physical education in grades K-12. Content includes rationale for skill progressions, scope and sequence of physical education curriculum, and program planning. Three hours per week. (spring semester only)

290. SELECTED STUDIES IN PHYSICAL EDUCATION
1-2 hours credit
Provides opportunities for short-term needs of students and/or faculty. Affords avenue for course experimentation and innovation at the introductory level. May be repeated under different subtitles for a maximum of six credits.

291. INDEPENDENT STUDY
1-3 hours credit
Independent study of issues in physical education. May be repeated for a maximum of six hours. Prerequisite: Permission of instructor and department chair.

330. ATHLETIC COACHING
3 hours credit
Introduction to the principles and practices of coaching. Emphasis on educational and motivational variables present in the medium of athletics. Three hours per week. (spring semester only)

331. COACHING YOUTH SPORTS
3 hours credit
Designed to prepare individuals to coach children in athletic activities. Emphasis is placed on communicating the essentials of a sport to children at an early stage of development (6-10 years old). Discussion focuses on the coach as a teacher and the influence of the coach’s behavior on the outcome of sporting events and the development of the child. Assignments and activities are designed to demonstrate ways to help children develop healthy bodies and positive self-images through participation in athletics and to identify techniques that promote positive discipline both on and off the playing field and plan strategies to involve parents in positive ways. Prerequisites: PHEC 330, current community CPR certification. Three hours per week.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHEC 479</td>
<td>PRACTICUM</td>
<td>3-12</td>
<td>Supervised internship or field placement in the area of human movement studies providing opportunities for experiential learning at an advanced level. Students pursue full-time professional assignments with an agency or organization which provides services related to the students' preparation in physical education. Credit for the practicum may range from three to 12 credits per semester, depending upon the experience. May be repeated for a total of 12 credit hours. Prerequisites: Completion of core and track requirements. Corequisite: PHEC 480.</td>
</tr>
<tr>
<td>480. SEMINAR</td>
<td></td>
<td>3</td>
<td>Provides opportunities for short-term needs and interest of students/faculty. Affords avenue for curriculum experimentation and innovation at an advanced level. Student may earn a maximum of six credits.</td>
</tr>
<tr>
<td>490. SELECTED TOPICS IN PHYSICAL EDUCATION</td>
<td>1-3 hours credit</td>
<td></td>
<td>Provides opportunities for short-term needs and interest of students/faculty. Affords avenue for curriculum experimentation and innovation at an advanced level. Student may earn a maximum of six credits.</td>
</tr>
<tr>
<td>491. INDEPENDENT STUDY</td>
<td>1-3 hours credit</td>
<td></td>
<td>Advanced independent study of issues in physical education. May be repeated for a maximum of six hours.</td>
</tr>
<tr>
<td>572. ADVENTURE-BASED LEADERSHIP EDUCATION</td>
<td>3 hours credit</td>
<td></td>
<td>Introduces students to experiential, adventure-based education. Students study and practice principles and theories of leadership education within a cooperative learning approach. Three hours per week.</td>
</tr>
<tr>
<td>590. SELECTED TOPICS IN PHYSICAL EDUCATION</td>
<td>1-3 hours credit</td>
<td></td>
<td>Provides opportunities for short-term needs and interest of students/faculty. Affords avenue for curriculum experimentation and innovation at an advanced level. Student may earn a maximum of six credits.</td>
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**Physical Education/Teacher Education (PHED)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>400. ADAPTED PHYSICAL EDUCATION</td>
<td>3 hours credit</td>
<td></td>
<td>Analysis of adapted physical education programming and instruction. Emphasis on teaching, planning and implementation of physical education instruction for students with disabilities. Credit may not be received for both PHEC 340 and PHED 400. Prerequisite: Admission to Professional Teacher Education Program. Corequisite: PHED 401. Two hours lecture, one hour laboratory per week.</td>
</tr>
<tr>
<td>401. PRACTICUM VISITS IN ADAPTED PHYSICAL EDUCATION</td>
<td>1 hour credit</td>
<td></td>
<td>Focuses on the practice of teaching in an adapted physical education setting. By the completion of this course candidates will be able to demonstrate successful teaching strategies in an adapted physical education school setting. This will be accomplished through one day per week practical teaching experience at the K-12 grade level. During these experiences, candidates will assist and teach multiple lessons.</td>
</tr>
</tbody>
</table>
Prerequisite: Admission to professional education teacher program. One day per week.

406. ADMINISTRATION AND ORGANIZATION
3 hours credit
Study of problems of administration structure and procedures, program planning, organization of physical education classes and departments, and organization of athletic programs. Credit may not be received for both PHED 406 and PHED 496. Prerequisite: Admission to Professional Teacher Education Program. Corequisites: PHED 410, 411, 420, 421, 485. Three hours per week.

410. ELEMENTARY SCHOOL PHYSICAL EDUCATION
3 hours credit
Analysis of elementary school physical education teaching methods, program implementation and curricula. Emphasis on teaching effectiveness through reflective problem solving. Credit may not be received for both EDUC 343 and PHED 410. Prerequisite: Admission to Professional Teacher Education Program. Corequisites: PHED 406, 410, 411, 420, 421, 480. Three hours per week.

411. INTERNSHIP I IN ELEMENTARY PHYSICAL EDUCATION
1 hour credit
Focuses on the practice of teaching in the elementary school setting. Upon the completion of this course, candidates will be able to demonstrate successful teaching strategies in elementary school. A one day per week practical teaching experience at the K-5 level is required. During this experience, each candidate will assist and teach multiple lessons. Credit may not be received for both ELED 309 and PHED 411. Prerequisite: Admission to professional education teacher education. Corequisites: PHED 406, 410, 420, 421, 480. One day per week.

420. SECONDARY SCHOOL PHYSICAL EDUCATION
3 hours credit
Analysis of secondary school physical education teaching methods, program implementation and curricula. Emphasis on teaching effectiveness through reflective problem solving. Credit may not be received for both EDUC 371 and PHED 420. Prerequisite: Admission to Professional Teacher Education Program. Corequisites: PHED 406, 410, 411, 420, 480. Three hours per week.

421. INTERNSHIP I IN SECONDARY PHYSICAL EDUCATION
1 hour credit
Focuses on the practice of teaching in the secondary school setting. Upon the completion of this course, candidates will be able to demonstrate successful teaching strategies in secondary school. A one day per week practical teaching experience at the 6-12 level is required. During this experience, each candidate will assist and teach multiple lessons. Credit may not be received for both SCED 339 and PHED 421. Prerequisite: Admission to professional education teacher education program. Corequisites: PHED 406, 410, 411, 420, 480. One day per week.

470. INTERNSHIP II IN ELEMENTARY PHYSICAL EDUCATION
6 hours credit each
Directed student internship experience in K-12 schools under the direction of the mentor teacher and University supervision. Half the experience in elementary physical education teaching and half semester in secondary physical education. A grade of NR will be assigned to candidates who satisfactorily complete PHED 470 until successful completion of PHED 471. Credit may not be received for both EDUC 404 and PHED 471. Prerequisites: Admission to Professional Teacher Education Program and student teaching criteria. Corequisites: PHED 471, 481. (P/F)

471. INTERNSHIP II IN SECONDARY PHYSICAL EDUCATION
6 hours credit each
Directed student internship experience in K-12 schools under the direction of the mentor teacher and University supervision. Half the experience in elementary physical education teaching and half semester in secondary physical education. A grade of NR will be assigned to candidates who satisfactorily complete PHED 470 until successful completion of PHED 471. Credit may not be received for both EDUC 404 and PHED 471. Prerequisites: Admission to Professional Teacher Education Program and student teaching criteria. Corequisites: PHED 470, 481. (P/F)

480. SEMINAR I IN PHYSICAL EDUCATION
1 hour credit
Designed to enhance and complement the learning experiences of interns during their initial internship placement in the schools. Emphasis will focus on issues, perspectives and challenges that will assist the intern in having a positive and productive learning experience. Prerequisite: Admission to professional teacher education program. Corequisites: PHED 406, 410, 411, 420, 421. One day per week.

481. SEMINAR II IN PHYSICAL EDUCATION
2 hours credit
Critical analysis of the decisions made by student interns in K-12 schools. Emphasis upon identifying possible solutions for problems interns face during K-12 student internship. May not receive credit for EDUC 478 and PHED 481. Corequisites: PHED 470, 471. (P/F)

PHYSICS (PHYS)

100. PHYSICS IN THE MODERN WORLD
4 hours credit
Survey of major areas of physics. Topics include motion, forces, waves, light, sound, heat, electricity, magnetism, quantum phenomena and relativity. One-semester course intended for non-science majors. Not open to students with credit in PHYS 121 or 211 or 221. Three lecture hours, two hours laboratory per week. Meets General Education IIIA or IIIB.

101. PHYSICAL SCIENCE
4 hours credit
Introduces students to the fundamental concepts of the physical sciences. The course will emphasize practical applications, especially those which integrate all of the natural sciences. Credit may not be received for both CHEM 101 and PHYS 101. Prerequisite: This course assumes an understanding of college algebra. MATH 130 is recommended. This course is for elementary education majors. Three lecture hours, two hours laboratory per week. Meets General Education IIIA or IIIB.

108. INTRODUCTION TO ASTRONOMY
4 hours credit
Survey of modern astronomy for non-science majors. Basic physics concepts utilized to study the night sky, light, optics and telescopes, planets, the moon and sun, stars nebulae, galaxies and the universe. Some night observations required. May not be taken for credit if student already has credit for PHYS 106. Three lecture hours, two hours laboratory per week. Meets General Education IIIA or IIIB.

121. GENERAL PHYSICS I
4 hours credit
Introduction to Newtonian mechanics and applications. Topics include kinematics, dynamics, rotational motion, equilibrium, conservation laws and fluids. Not intended for physics or chemistry majors. Recommended Prerequisite: College
algebra. Three hours lecture, two hours laboratory per week. Meets General Education IIIA or IIIB.

123. GENERAL PHYSICS II 4 hours credit
Continuation of general physics. Topics include basic concepts of electricity and magnetism, wave motion, optics and modern physics. Prerequisite: PHYS 121. Three hours lecture, two hours laboratory per week. Meets General Education IIIB.

211. MAJOR CONCEPTS IN PHYSICS 3 hours credit
Integrated study of the major concepts of physics designed as a first course for physics and related majors. Topics drawn from classical mechanics, electrodynamics, quantum mechanics and relativity. Corequisite: MATH 201. Four hours lecture/activity per week.

221. PHYSICS I 4 hours credit
Introductory course in mechanics for students majoring in physics, chemistry and engineering. Topics include single particle kinematics and dynamics, multiparticle systems, rotational motion, oscillations, waves and sound. Prerequisite or Corequisite: MATH 201. Six hours lecture/activity per week. Meets General Education IIIA and IIIB.

223. PHYSICS II 4 hours credit
Continuation of introductory physics. Topics include: electrostatics, current and resistance, DC and AC circuit analysis, magnetic fields, induction, electromagnetic waves and geometrical and wave optics. Prerequisite: PHYS 221. Prerequisite/Corequisite: MATH 202. Six hours lecture/activity per week.

309. MATHEMATICAL PHYSICS 3 hours credit
Survey of the most important mathematical tools of classical physics. Topics include coordinate systems, complex algebra, matrix algebra, Fourier series and applications, differential equations (wave equation, Schrodinger’s equation) and vector calculus (gradient, divergence, curl, Stoke’s theorem, Green’s theorem). Credit may not be received for both MATH/PHYS 309. Prerequisites: PHYS 223, MATH 202. Four hours lecture/activity per week.

311. ELECTRICAL CIRCUITS AND ELECTRONICS 4 hours credit
Survey of basic principles of electric circuits and modern electronics. Topics include AC and DC circuits, Thévenin’s and Norton’s theorems, transient analysis, power supplies, diodes and transistors, operational amplifiers and an introduction to circuit simulation programs. Prerequisite: PHYS 223. Prerequisite/Corequisite: MATH 311. Three hours lecture, three hours laboratory per week.

313. INTRODUCTION TO MODERN PHYSICS 3 hours credit
Survey of physics concepts developed since 1880. Topics include blackbody radiation, photoelectric effect, special relativity, quantization, uncertainty principle and introductory atomic, nuclear and solid state physics. Prerequisite: PHYS 223. Four hours lecture/activity per week.

314. MECHANICS 3 hours credit
Theory and application of Newtonian mechanics with an introduction to the Lagrange formalism. Major topics include kinematics and dynamics of single particles and systems of particles, rigid bodies, noninertial reference frames and the simple harmonic oscillator. Prerequisites: PHYS 223, 309, MATH 311. Four hours lecture/activity per week.

315. ELECTRICITY AND MAGNETISM 3 hours credit
Study of electricity and magnetism. Topics include Coulomb’s law, electric and magnetic fields, electromagnetic induction, Maxwell’s equations and an introduction to electromagnetic waves. Prerequisites: PHYS 223, 309, MATH 311. Four hours lecture/activity per week.

316. INTRODUCTION TO QUANTUM MECHANICS 3 hours credit
Introduction to the principles of quantum mechanics. Topics include wave mechanics, Schrodinger’s equation, Fourier techniques, operator formalism, correspondence and uncertainty principles, harmonic oscillator and hydrogen atom. Prerequisites: PHYS 309, 313, 314. Four hours lecture/activity per week.

317. ASTROPHYSICS AND STELLAR ASTRONOMY 3 hours credit
Physical and mathematical principles applied to the study of astronomy, binary stars, stellar structure and evolution, galactic and extragalactic astronomy, quasars and cosmology. No prior knowledge of astronomy required. Prerequisites: PHYS 223, 309. Four hours lecture/activity per week.

318. SEMICONDUCTOR PHYSICS 3 hours credit
Mathematical treatment of the theory of conduction in solids with particular attention to semiconductors. Topics include band theory of solids, conduction in metals and crystals, intrinsic and extrinsic semiconductors, two-terminal and three-terminal devices. Prerequisites: PHYS 309, 313, MATH 311. Four hours lecture/activity per week.

319. THERMODYNAMICS AND STATISTICAL MECHANICS 3 hours credit
Introduction to statistical mechanics and thermodynamics. Topics include laws of thermodynamics, paramagnetism, heat capacity of solids, perfect classical gas, phase equilibria and perfect quantal gas. Prerequisites: PHYS 309, 314. Three hours per week.

320. WAVE OPTICS 3 hours credit
Study of light as a wave phenomenon. Topics include nature of light, propagation, reflection, refraction, interference, diffraction, lasers and holography. Prerequisites: PHYS 223, 309, MATH 311. Four hours lecture/activity per week.

321. ANALOG ELECTRONICS 3 hours credit
Study of analog electronic devices and systems. Topics include operational amplifiers, active filters, oscillators and function generators, linear integrated circuits. Prerequisite: PHYS 311. Four hours lecture/activity per week.

322. DIGITAL ELECTRONICS 4 hours credit
Study of the basic concepts of digital electronics, with emphasis on modern TTL and CMOS integrated circuits. Topics include gates, combinational and sequential logic circuits, flip-flops, counters, shift registers, multiplexers, decoders and multivibrators. Credit may not be received for both PHYS 322 and COSC 250. Prerequisite: PHYS 223. Three hours lecture, three hours laboratory per week.

395. INTERMEDIATE PHYSICS RESEARCH 3 hours credit
Intermediate level, individual research project in physics under supervision of a member of the faculty. Written report and seminar presentation required. May be repeated for up to six credits. Prerequisites: Eight credits of physics and departmental approval. Six hours per week.
399. INTERMEDIATE SPECIAL TOPICS IN PHYSICS
1-3 hours credit
Study of specific area of physics at the sophomore or junior level. Topic varies semester to semester. May be repeated for up to six credits. Prerequisite: Permission of instructor. One to three hours lecture per week or lab-lecture equivalent.

407. SENIOR LABORATORY
3 hours credit
Exploration of physics through experimentation. Prerequisites: PHYS 311, 313. Four hours lecture/activity per week.

410. ADVANCED MATHEMATICAL PHYSICS
3 hours credit
Survey of advanced mathematical topics used in physics, including linear operators, functions of a complex variable, partial differential equations, Hilbert spaces and group theory. Prerequisites: PHYS 309, MATH 311. Four hours lecture/activity per week.

413. COMPUTER ARCHITECTURE AND INTERFACING
3 hours credit
Architecture, programming and interfacing of one or two representative processors. Instruction sets and assembly language programming. Prerequisites: PHYS 311, 322. Four hours lecture/activity per week.

414. ADVANCED MECHANICS
3 hours credit
Advanced study of Newtonian mechanics based on concepts introduced in PHYS 314. Topics include Lagrangian and Hamiltonian formalism, calculus of variations, rigid bodies, small oscillations, fluid mechanics. Prerequisite: PHYS 314. Three hours per week.

450. INTERNSHIP/CO-OP IN PHYSICS
3 hours credit
Work experience in which qualified students use knowledge of physics in a professional setting. Prerequisites: Physicists summarize experiences in written reports with seminar presentations. Prerequisite: Twenty-four hours of physics, permission of department chair. Six hours per week.

470. SENIOR SEMINAR
1 hour credit
Senior seminar for physics majors. Introduction to research practices. Preparation for PHYS 475 or PHYS 490 projects. Prerequisite: 30 hours of physics or departmental approval. One hour per week.

475. CAPSTONE DESIGN PROJECT
2 hours credit
Application of classroom learning to a real-world problem. Projects involve application of electronics and computers: e.g. robotics, CAD/CAM, microcontrollers, environmental monitoring, DSP, ASIC design, microwave and communication circuits, mechatronics and process control. Prerequisites: PHYS 413 and 470, or permission of instructor.

490. RESEARCH IN PHYSICS
2 hours credit
Research project in one of the areas of physics chosen, designed and carried out by student with the advice and approval of a faculty member. Actual work may be carried out at off-campus sites. Written report, seminar presentation required. Prerequisites: PHYS 470 and 40 credits of physics (or senior standing) and department chair approval.

499. SPECIAL TOPICS IN PHYSICS
1-3 hours credit
Study of a specific advanced area of physics. Topic varies semester to semester. May be repeated for up to six credits. Prerequisite: Senior standing and department chair approval. One to three hours lecture per week or lab-lecture equivalent.

590. SPECIAL TOPICS IN PHYSICS EDUCATION
3 hours credit
Study of specific area of physics and physics education. This physics education course is aimed primarily at in-service teaching professionals wanting to enhance their knowledge of basic physics principles and phenomena and do so by exploring best practice pedagogical inquiry-based instruction techniques. Topics vary from semester to semester. May be taken twice for credit under different subtitles. Three hours per week.

POLITICAL SCIENCE (POSC)

101. INTRODUCTION TO POLITICS AND GOVERNMENT
3 hours credit
Introduction to the study of political science that discusses the nature of politics, the role of government in society and the processes involved in the governing of humans. Three hours per week. Meets General Education IIB.

102. CONTEMPORARY ISSUES
3 hours credit
Examines how the American political system responds to major issues facing the nation. The politics of recent issues such as civil rights, Watergate, the environment and the energy crisis, along with current issues, discussed in detail. Three hours per week. Meets General Education IIB.

110. AMERICAN NATIONAL GOVERNMENT
3 hours credit
Comprehensive examination of the American political process which analyzes the role of the Constitution, the organization and function of the presidency, Congress, Supreme Court, political parties and interest groups and the distribution of power within American society. Three hours per week. Meets General Education IIB.

200. POLITICAL IDEOLOGIES
3 hours credit
Analysis of political ideologies, emphasizing their role as both justifications for and radical critiques of existing social, economic and political structures and processes. Covers a number of ideologies, including fascism, liberalism, socialism and communism. Three hours per week. Meets General Education IIB.

202. STATE AND LOCAL GOVERNMENT IN THE UNITED STATES
3 hours credit
Examination of state and local governments in terms of how political power is organized and policies adopted. Focuses on forms of governing that encourage citizen participation. Three hours per week. Meets General Education IIB.

204. TOPICS IN POLITICAL SCIENCE
3 hours credit
Analysis of recent international or national issues which helps students understand the complex contemporarypolitical environment. May be taken twice under different course titles. Three hours per week. Meets General Education IIB.

210. INTRODUCTION TO INTERNATIONAL RELATIONS
3 hours credit
Introduces students to contemporary issues in world affairs:
state creation and “failed” states, balance of power, wars, nuclear proliferation and arms control. Addresses global trade, monetary, development and environmental problems, as well as regional integration and the role of the World Bank and MNCs. Examines the use of international law, diplomatic negotiation and the UN to resolve international conflicts. Three hours per week. Meets General Education IIB.

213. WAR AND PEACE IN THE MIDDLE EAST 3 hours credit
Introduction to the causes of interstate conflict in the Middle East and to the opportunities for peace in the region. Examines the impact of Great Power competition, the regional balance of power, the rise of religious fundamentalism and the struggle for control of resources. Includes an analysis of the Arab-Israeli conflict, as well as other examples of conflict and accommodation in the region. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

215. AMERICAN FOREIGN POLICY 3 hours credit
Emphasizes areas of foreign policy: the individuals, organizations and procedures involved in foreign policy making; the major approaches of U.S. foreign policy; and current issues. Three hours per week. Meets General Education IIB.

230. JUDICIAL PROCESS AND POLITICS 3 hours credit
Examines the structure and role of courts in the American political process. State and federal court systems and the role of judges are explored. Emphasis is on how courts function within the legal and political environment while acting as policy makers. Three hours per week.

260. POLITICS OF THE CHESAPEAKE BAY 3 hours credit
Practical look at the politics in the management, use and regulation of the Chesapeake Bay. Focus on the interdisciplinary nature of problem solving and the establishment and implementation of environmental policy for the Chesapeake Bay and its watershed. Comparison with Coastal Bays included. Three hours per week. Meets General Education IIB.

300. METHODS OF EMPIRICAL POLITICAL ANALYSIS 4 hours credit
Focuses on student-developed research projects that utilize the scientific method and the collection and analysis of quantitative data, especially public opinion polls. The use of computers and statistics in political science research emphasized. Prerequisites: POSC 101 or 110, junior standing. Three hours lecture, one two-hour laboratory per week.

301. POLITICAL PARTIES AND PRESSURE GROUPS 3 hours credit
Descriptive and analytical examination of American political parties and pressure groups with attention to political socialization and voting behavior. Prerequisite: POSC 101 or 110. Three hours per week.

310. COMPARATIVE EUROPEAN GOVERNMENT 3 hours credit
Comparative study of the government systems, political processes, leadership, political parties, elections and current political issues in Britain, France and Germany and an overview of the European community. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

311. COMPARATIVE GOVERNMENT OF DEVELOPING NATIONS 3 hours credit
Comparative study of the historical backgrounds, ideological foundations, leadership, opposition groups, political processes and current issues in the governmental systems of selected developing countries. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

313. COMPARATIVE POLITICS OF THE MIDDLE EAST 3 hours credit
Examines the conditions and variables that affect the content and conduct of politics within the states of the Middle East with an emphasis on the impact of socioeconomic factors, culture, religious belief systems, gender roles, ethnic and national identities, secular ideologies, and foreign penetration upon political behavior in the region. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

315. THE PRESIDENCY IN AMERICAN POLITICS 3 hours credit
Helps students develop a deeper understanding of the American presidency's relationship to other governmental and nongovernmental institutions in the American political system. Particular attention paid to the implications and consequences of these relationships for democratic society. Prerequisite: POSC 101 or 110. Three hours per week.

320. PUBLIC POLICY ANALYSIS 3 hours credit
In-depth study of the governmental decision-making process within the American federal government. Provides students with an explanation of the primary governmental activities associated with the basic steps in the policy-making process. Some of these steps include policy formulation, implementation and evaluation. Prerequisite: POSC 101 or 110. Three hours per week.

330. AMERICAN CONSTITUTIONAL DEVELOPMENT 3 hours credit
Study of the principles, nature and meaning of the U.S. Constitution as determined by the holdings and opinion of the Supreme Court. Emphasis on the historical development of the Constitution and a study and analysis of the U.S. court system, judicial review, separation of powers, commerce powers and powers of Congress and the president. Prerequisite: POSC 101 or 110. Three hours per week.

340. POLITICAL SCIENCE INTERNSHIP 3-9 hours credit
Helps students learn about political behavior and policy problems as participant-observers in a government organization at the national, state or local level. Prerequisites: POSC 101 or 110, permission of instructor. (P/F)

341. POLITICAL SCIENCE INTERNSHIP SEMINAR 3 hours credit
Places an intern's work experience within a broader, analytical perspective. Interns thoroughly examine existing research on the relevant governmental agency and relate the findings of this research to their own internship experiences. Designed to be taken with POSC 340. Prerequisites: POSC 101 or 110, permission of instructor.

360. ENVIRONMENTAL POLICY 3 hours credit
Overview of national and global environmental policies in the U.S. Examines individual policies including their content, their adoption, the regulatory process and their effect on environmental quality. Role of the political actors and the political process in environmental policy-making explored. Prerequisite: Junior standing. Three hours per week. Meets General Education IIB.

370. DEMOCRACY 3 hours credit
Explores both the idea of democracy and its possibilities for realization in human society. Advocates and critics of democracy, both old and contemporary, are examined. Prerequisite: POSC 101 or 110. Three hours per week.

390. INTERNATIONAL FIELD STUDY 3-6 hours credit
On-site study of the politics, history, economy and culture of
Selected countries. Work in the field preceded by pre-tour lectures and readings. May be repeated once for credit. Number of credits offered to be determined by the department.

399. HONORS INTERDISCIPLINARY
3 hours credit
Examines topics of broad trans-disciplinary scope and interest in conjunction with one or more other departments. Three hours per week.

401. POLITICAL THEORY
3 hours credit
Survey of political thought based on the analysis of ideas of modern theorists, including the historical setting of major theories, their impact on political institutions and social changes and their contemporary significance. Prerequisite: POSC 101 or 110. Three hours per week.

409. CAUSES OF WAR
3 hours credit
Explores theoretical explanations of international conflict. Major questions addressed are: What are the primary causes of war? How may war be prevented? Prerequisite: Junior standing. Three hours per week. Meets General Education III.B.

411. INTERNATIONAL LAW
3 hours credit
Survey of the general principles and specific rules of international law as well as its recent trends and its relations to other aspects of international affairs. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

413. INTERNATIONAL POLITICAL ECONOMY
3 hours credit
Examines the most important economic issues in the current global economy and compares and contrasts liberal, statist and Marxist theories of international political economy. Topics include the debate over globalization, the formation and operation of regional economic blocks, the goal of sustainable development and the challenge of transition in post-socialist societies. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

415. THE UNITED NATIONS SYSTEM
3 hours credit
Examines the history and evolution of the UN system. Focuses on the role of the UN in settling international disputes, providing international order and security, promoting decolonization, promoting human and political rights, and providing for economic and social development around the world. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

417. RUSSIA AND THE SOVIET UNION
3 hours credit
Political development of Russia from the Bolshevik Revolution and Stalinism through the Gorbachev period and collapse of the U.S.S.R. Emphasis on government structure, parties, ideology, political conflict and change. Exploration of political, social, economic, environmental and foreign policy problems of the new Russian state. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

430. THE CONGRESS IN AMERICAN POLITICS
3 hours credit
Analysis of the structural characteristics and functions of the United States Congress. Factors influencing congressional decision making and the importance of Congress in American political process discussed. Prerequisite: POSC 101 or 110. Three hours per week.

440. PUBLIC ADMINISTRATION
3 hours credit
Study of the basic characteristics of modern American governmental bureaucracies, as well as the important issues public administrators face. Exploration of administrative and organizational theories. Prerequisite: POSC 101 or 110. Three hours per week.

450. CIVIL RIGHTS AND LIBERTIES
3 hours credit
Explores civil rights and liberties of the individual under the United States constitution, including freedom of religion, speech, press, right to privacy, and race and sex discrimination. Prerequisite: POSC 101 or 110. Three hours per week.

460. ENVIRONMENTAL LAW
3 hours credit
Introduction to the legal system and principles of environmental law. Explores the nature and sources of environmental problems, evolution of the law and the legal system's response to environmental problems. Examines laws, regulations and court decisions designed to control specific environmental problems; protect public health, safety and resources; and provide international environmental controls. Students use the case study method of legal analysis. Prerequisite: Junior standing. Three hours per week.

480. STUDIES IN POLITICAL SCIENCE
3 hours credit
Intensive study of a specialized area of inquiry within the major subfields of political science: American government, international relations, comparative government, political theory and public policy. May be taken twice under different subtitles. Prerequisites: POSC 101 or 110, junior/senior class standing. Three hours per week.

490. INDIVIDUAL RESEARCH
1-3 hours credit
Advanced students pursue their own research project under the direction of a faculty member, or assist a faculty member in a research project. Involves in-depth reading program or the collection and analysis of data from primary sources. May be repeated for a maximum of six credits with faculty approval; credit beyond three hours requires approval of the department chair.

501. POLITICAL THEORY
3 hours credit
Survey of political thought based on the analysis of ideas of modern theorists, including the historical setting of major theories, their impact on political institutions and social changes and their contemporary significance. Prerequisite: POSC 101 or 110. Three hours per week.

509. CAUSES OF WAR
3 hours credit
Explores theoretical explanations of international conflict. Major questions addressed are: What are the primary causes of war? How may war be prevented? Three hours per week.

511. INTERNATIONAL LAW
3 hours credit
Survey of the general principles and specific rules of international law as well as its recent trends and its relations to other aspects of international affairs. Prerequisite: POSC 101 or 110 or 210. Three hours per week.

515. THE UNITED NATIONS SYSTEM
3 hours credit
Examines the history and evolution of the UN system. Focuses on the role of the UN in settling international disputes, providing international order and security, promoting decolonization, promoting human and political rights, and providing for economic and social development around the world. Prerequisite: POSC 101 or 110 or 210. Three hours per week.
PSYCHOLOGY (PSYC)

101. GENERAL PSYCHOLOGY
3 hours credit
Survey of general principles underlying human behavior including study of the nervous system, perception, learning, emotion and personality. Experimental findings are applied to practical situations. Three hours per week. Meets General Education IIB.

211. PSYCHOLOGY AND SCIENTIFIC INFERENCE
3 hours credit
Designed for psychology majors. Topics include principles of experimental design, logic of hypotheses testing, reasoning through issues in psychology and effective critical thinking. Prerequisite: PSYC 101. Three hours per week.

215. PSYCHOLOGY APPLIED TO DAILY LIVING
3 hours credit
Designed to help students use psychology in their everyday lives so that they may understand and influence their own behavior and the behavior of others. Methods and techniques of behavior change discussed. Prerequisite: PSYC 101. Three hours per week.

220. PSYCHOLOGICAL STATISTICS
3 hours credit
Methods of design of psychological experiments and analysis of data. Prerequisite/Corequisite: PSYC 211. Three hours per week.

300. DEVELOPMENTAL PSYCHOLOGY
3 hours credit
Survey of the characteristics of and theories explaining the physical, intellectual, social and emotional development of individuals throughout the life span. Prerequisite: PSYC 101. Three hours per week.

301. BIOLOGICAL BASIS OF BEHAVIOR
3 hours credit
Introduction to the biological basis of behavior with emphasis on the anatomy and physiology of nerve cells and the nervous system, the effects of drugs on the nervous system, and other introductory topics. Prerequisites: PSYC 101, 211. Three hours per week.

302. ABNORMAL PSYCHOLOGY
3 hours credit
Survey of the etiology, diagnosis and prognosis of neuroses, psychoses, psychosomatic disorders, transient situational maladjustments and personality disorders, with discussions of various treatment approaches. Prerequisite: PSYC 101. Three hours per week.

304. EXPERIMENTAL PSYCHOLOGY
4 hours credit
Study of the experimental method and its application to psychological research in both animals and humans. Prerequisites: PSYC 211, 220. Three hours lecture, two hours laboratory per week.

305. PSYCHOLOGY OF LEARNING
3 hours credit
Survey of the basic experimental facts and research related to learning. Prerequisite: PSYC 211. Three hours per week.

306. SOCIAL PSYCHOLOGY
3 hours credit
Study of group behavior of humans with emphasis on the relation of the individual to the group. Mass reaction and judgement, group control and group influence on the individual area considered. Prerequisites: PSYC 101, 211. Three hours per week.

313. DRUGS AND BEHAVIOR
3 hours credit
Examination of the use and misuse of drugs, both legal and illegal, from biological, historical, psychological, and social perspectives. Prerequisite: PSYC 101. Three hours per week.

320. PSYCHOLOGY OF INFANCY AND CHILDHOOD
3 hours credit
In-depth study of the implications of and issues surrounding the physical, intellectual, social and emotional development of children from conception to adolescence. Prerequisites: PSYC 101. Three hours per week.

321. PSYCHOLOGY OF ADOLESCENCE
3 hours credit
Study of physical, emotional and social development of the adolescent. Prerequisite: PSYC 101. Three hours per week.

322. PSYCHOLOGY OF AGING
3 hours credit
Study of selected topics in human development from early adulthood through old age. Prerequisite: PSYC 101. Ten hours of volunteer work with the elderly per semester, three hours per week.
323. PSYCHOLOGY OF DEATH AND DYING
3 hours credit
Exploration of attitudes and behaviors related to death. Topics include the dying patient, suicide, bereavement, ethical issues, the funeral, etc. Emphasis on developing an understanding of self and death. Prerequisite: PSYC 101. Three hours per week.

325. PSYCHOLOGY OF SEXUALITY
3 hours credit
Introduction to the psychological theories and social research concerning human sexuality. Topics include gender roles, sexual attitudes and mores, sexual health, sexual abuse and other current issues. Prerequisite: PSYC 101. Three hours per week.

333. EFFECTIVE PARENTING
3 hours credit
Offers practical techniques for dealing with children, including effective communication with children of all ages and techniques for coping with inappropriate behavior in children. Prerequisite: PSYC 101. Three hours per week.

334. PSYCHOLOGY OF WOMEN
3 hours credit
Study of sex roles, sex differences, the causes of psychological problems of women and some methods of coping with the rapidly changing roles of both men and women. Prerequisite: PSYC 101. Three hours per week.

335. BASIC HELPING RELATIONS
3 hours credit
Focuses on counseling as a communication process. Topics include counseling relationships, verbal/nonverbal communication, helping stages and therapeutic intervention strategies. Prerequisite: PSYC 101. Three hours per week.

336. PSYCHOLOGY OF MEN
3 hours credit
Study of the psychological effects of the cultural roles assigned to males and of the impact of the transitions confronting men in the roles they assume. Prerequisite: PSYC 101. Three hours per week.

360. CLINICAL/COUNSELING PSYCHOLOGY
3 hours credit
Introduction to methods, techniques and theories in the practice of clinical/counseling psychology in a variety of settings. Current problems and issues confronting clinical and counseling psychologists are investigated. Prerequisite: PSYC 101. Three hours per week.

375. PSYCHOLOGY AND THE LAW
3 hours credit
Focuses on the contribution of psychological theories on the legal system and the increasing use of mental health professionals in this system. Topics to be covered include a variety of issues related to ways the fields of psychology and legal studies intersect, including examining theories of crime, stages of the trial process, police training, judge and jury decision making, use of expert witnesses, the insanity defense, witness reliability and crime victims. Prerequisite: PSYC 101, junior or senior status is suggested. Three hours per week.

401. PHYSIOLOGICAL PSYCHOLOGY
3 hours credit
Presentation of advanced topics on physiological psychology including the morphological, neurochemical and physiological bases of behavior. Students may not receive credit for both PSYC 312 and 401. Prerequisites: PSYC 211, 301. Three hours per week.

402. CHILDHOOD DISORDERS
3 hours credit
A developmental study of behavior problems in children and adolescents, ranging from mild personality disorders to psychoses. Special consideration is given to identification of risk factors related to physiological, cognitive, affective and social influences on behavior. Course focuses on description, etiology and treatment of childhood disorders. Prerequisite: PSYC 101. Three hours per week.

403. MEASUREMENT AND EVALUATION IN PSYCHOLOGY
3 hours credit
Coverage of correlational techniques, reliability and validity. Psychological tests and questionnaires considered in terms of their measurement assumptions and utility. Prerequisite: PSYC 220 or permission of instructor. Three hours per week.

406. PSYCHOLOGY OF ATTITUDES AND ATTITUDE CHANGE
3 hours credit
Concerned with how attitudes are formed, measured and changed. Emphasis on the classical theories and new approaches to attitude formulation and change. Prerequisite: PSYC 306 or permission of instructor. Three hours per week.

407. PSYCHOLOGY OF PERSONALITY
3 hours credit
Survey of major theoretical approaches to the origin and development of human personality. Prerequisite: PSYC 101. Three hours per week.

408. HISTORY AND SYSTEMS IN PSYCHOLOGY
3 hours credit
Study of basic integrating theories of psychology. Prerequisites: PSYC 211, junior standing. Three hours per week.

409. ENVIRONMENTAL PSYCHOLOGY
3 hours credit
Study of the effects of the environment on human behavior. Consideration given to such topics as organizational structure and climate, architecture, population density and urban stress. Prerequisite: PSYC 101. Three hours per week.

410. MULTICULTURAL ISSUES
3 hours credit
A study of the psychological impact of major cultural groups on the behavior, attitudes, thoughts and beliefs of individuals. Prerequisites: PSYC 101 and junior status. Three hours per week.

415. MOTIVATION AND EMOTION
3 hours credit
Survey of experimental findings and theory of processes that energize and direct behavior. Prerequisites: PSYC 211, 301. Three hours per week.

423. DEVELOPMENTAL DISABILITIES
3 hours credit
Study of children who vary from the norm, including those with physical disabilities, mental disabilities and socio-emotional disturbances. Prerequisite: PSYC 320. Three hours per week.

430. APPLIED BEHAVIOR ANALYSIS
3 hours credit
Provides both a theoretical and data driven approach to behavioral engineering in the areas of industry, sports, education and behavior change in the areas covered under clinical psychology. Prerequisite: PSYC 101. Three hours per week.
445. COGNITIVE PSYCHOLOGY
3 hours credit
Study of human cognitive processing. Topics include perception, attention, memory, problem solving, language, reasoning, and decision making. Prerequisite: PSYC 211. Three hours per week.

446. FUNDAMENTALS OF HUMAN NEUROPSYCHOLOGY
3 hours credit
Introduction to brain/behavior relationships with emphasis on patients with known brain damage. Examines types of brain damage, related loss of function, neuropsychological assessment and course of recovery. Prerequisites: PSYC 301, junior status. Three hours per week.

450. SENSATION AND PERCEPTION
3 hours credit
Study of human sensory and perceptual systems with emphasis on vision. Perception treated from a physiological, behavioral and cognitive point of view. Prerequisites: PSYC 211, 301. Three hours per week.

481. HEALTH PSYCHOLOGY/BEHAVIORAL MEDICINE
3 hours credit
A scientific, research-based examination of the ways in which psychological factors may relate to physical health and disease, including behavioral and emotional protective and risk factors for disease from a biopsychosocial perspective. Students will explore the psychological consequences of physical disease and disability, as well as common intervention approaches within clinical health psychology and behavioral medicine. Designed for psychology majors and students in the health sciences who have an understanding of basic psychological principles. Prerequisite: PSYC 101, junior or senior status is suggested. Three hours per week.

482. NATURE-NURTURE ISSUES
3 hours credit
A critical review and analysis of the classic argument involving influences on developmental outcomes. Questions of trait origin and consistency will be discussed. Students will read primary articles and texts covering diverse perspectives on the role of genes and the environment. Some of the concepts to be covered include: determinism, dynamic systems theory, epigenesis, genotype-phenotype, heritability, interactionism, ontogeny and phylogeny, reductionism, and stability versus variability. Prerequisites: PSYC 101 and junior status. Three hours per week.

485. PSYCHOLOGY PRACTICUM
3 hours credit
Provides psychology majors with training experience in a variety of clinical settings. Students may earn no more than six hours in undergraduate practicum courses. Prerequisites: Junior psychology majors only and permission of instructor. Minimum of two hours per week supervision, eight hours per week of field work. (P/F with pass equivalent to C or better.)

490. INDIVIDUAL DIRECTED STUDY
1-3 hours credit
Enables advanced students to pursue, through observation, experimentation or library research, a topic of their choosing. May be repeated for a maximum of six credits. Prerequisite: Permission of department chair.

495. SELECTED TOPICS IN PSYCHOLOGY
1-3 hours credit
Intensive study in a psychological therapeutic technique, person, developmental period or theory. May be repeated in different areas of study for a maximum of six hours credit. Prerequisite: PSYC 101.

497. RESEARCH IN PSYCHOLOGY
3 hours credit
Designed to introduce students to independent, original inquiry in questions of and mental processing using the scientific method. The course requires literature review, development of a hypothesis, selection of an appropriate research method, data collection and analysis, and research report writing under the close supervision of a faculty mentor. Findings will be reported at a public, scientific forum. Prerequisites: PSYC 304, junior status, permission of faculty mentor. May be repeated for a maximum of six credits.

531. THESIS
Three hours credit.

RESPIRATORY THERAPY (RESP)

210. FOUNDATION STUDIES IN RESPIRATORY THERAPY
3 hours credit
Introduction to respiratory therapy with emphasis on the physiologic basis of respiratory care. Covers basic principles, procedures and practices utilized in the profession. Three hours per week.

300. SPECIAL TOPICS IN RESPIRATORY CARE
1-4 hours credit
Study of a selected area of respiratory care. Topic may vary from semester to semester. Provides opportunity for curriculum innovation or meeting the special needs or interests of students. May be taken twice for credit under different subtitles. Prerequisite: Sophomore standing or permission of instructor.

301. PATIENT CARE PROCEDURES
4 hours credit
Introduction to basic respiratory therapy procedures commonly utilized in providing patient care. Opportunity for practicing selected skills provided in the respiratory care laboratory. Prerequisites: Junior status, completion of General Education requirements, or permission of instructor. Corequisites: RESP 302, 303. Three hours lecture, two hours laboratory per week.

302. BASIC RESPIRATORY PROCEDURES/CLINICAL PRACTICUM
5 hours credit
Provides basic skills necessary for the application of medical gases, aerosol and humidity therapy, chest physiotherapy, airway management, incentive spirometry, intermittent positive pressure breathing, arterial blood gases, and cleaning and sterilization. Prerequisite: Permission of program director. Supervised experience: one hour lecture, nine hours clinical practice per week.

303. CARDIOPULMONARY PHYSIOLOGY
3 hours credit
Study of cardiopulmonary physiology with emphasis on fluid and electrolyte balance, carbon dioxide and oxygen transport, acid-base regulation and the clinical significance of each. Prerequisite: Permission of program director. Three hours per week.

304. CARDIOPULMONARY DISEASE
3 hours credit
Provides a pathophysiological presentation of cardiopulmonary disease and gives the student practitioner an understanding of disorders of cardiopulmonary structure and function as related to the clinical setting. A symptom/problem-based focus along with the development of decision trees and algorithms will assist students in understanding the pathophysiology of cardiopulmonary problems. This approach will
provide the core of basic sciences and merge it with clinical subjects to reinforce learning through the acquisition of critical thinking skills based on broad, yet specific understanding of the clinical and pathologic aspects of cardiopulmonary dysfunction. Prerequisite: RESP 303 with C or better, or permission of instructor. Three hours per week.

321. ADVANCED RESPIRATORY CARE
4 hours credit
In-depth study of topics related to respiratory therapy in the critical care setting with laboratory experiences. Emphasis on mechanical ventilation, airway management, cardiopulmonary monitoring and cardiopulmonary assessment. Three hours lecture, two hours laboratory per week.

322. PHARMACOLOGY
3 hours credit
Investigation of pharmaceutical preparations employed in current medical practice with emphasis on those relevant to the respiratory care practitioner. Prerequisites: RESP 301, 302, 303 with C or better, or permission of instructor. Three hours per week.

323. CLINICAL PRACTICUM II
5 hours credit
Supervised clinical experience in a variety of critical and non-critical settings designed to reinforce primary skills and develop secondary skills necessary for the practice of respiratory care. Prerequisites: Junior standing, RESP 210, 301, 302, 303 with C or better, or permission of instructor. Supervised experience: one hour lecture, nine hours clinical practice per week.

400. FUNDAMENTALS OF RESPIRATORY CARE RESEARCH
2 hours credit
Introduction to the fundamentals of research related to the profession of respiratory care. The course is designed to enhance communication skills of undergraduate respiratory therapy students for the purpose of writing and presenting research related to respiratory care. Prerequisite: Senior status or permission of instructor. Two hours per week.

401. NEONATAL AND PEDIATRIC RESPIRATORY CARE
3 hours credit
Survey of current techniques employed in the respiratory treatment of children from birth through adolescence. Special attention to neonatal physiology and abnormalities requiring respiratory care and to the pulmonary significance of select childhood diseases. Prerequisite: Senior standing or permission of instructor. Two hours lecture, two hours laboratory per week.

402. CARDIOPULMONARY DIAGNOSTICS AND REHABILITATION
4 hours credit
Study of the theory and techniques of cardiopulmonary diagnostic procedures, interpretations and clinical applications, as well as an overview of rehabilitative respiratory care techniques. Prerequisites: Senior standing, RESP 301, 302, 303, 304, 321, 322, 323 with C or better or permission of instructor. Three hours lecture, three hours clinical practice per week.

403. CLINICAL PRACTICUM III
5 hours credit
Supervised clinical experience in critical settings with special rotations through areas focusing on intensive care techniques and neonatal/pediatric respiratory care. Prerequisites: Senior standing, RESP 301, 302, 303, 304, 321, 322, 323 with C or better or permission of instructor. Supervised experience: one hour lecture, nine hours clinical practice per week.

404. MANAGEMENT PRACTICES IN HEALTH SERVICES
3 hours credit
Prepares students for managerial challenges encountered by leaders and the health care practitioners in health service organizations. Topics include managerial theory, personnel interviewing, selection and maintenance, quality control, audits and budget preparation. Prerequisite: Senior standing or permission of instructor. Three hours per week.

420. RESPIRATORY CARE SEMINAR
3 hours credit
Study of the pathophysiology of diseases affecting the cardiopulmonary system with attention to common treatment. Small group discussion, case studies, computer simulations and frequent physician input allows students opportunity to test treatment ideas, challenge current regimes and understand the importance of appropriate respiratory care. Prerequisites: Senior standing, RESP 401, 402, 403, 404 with C or better or permission of instructor. Two hours lecture, two hours laboratory per week.

421. STUDY IN RESPIRATORY CARE
2 hours credit
Faculty-guided study of an aspect of respiratory care of special interest to the student. Prerequisites: Senior standing, RESP 401, 402, 403, 404 with C or better or permission of instructor. One hour lecture, two hours practicum per week.

422. MANAGEMENT SPECIALIZATION
2 hours credit
Provides an in-depth study of management principles and problems as they relate to respiratory care and the management of health care services. A practical component provides experience in the hospital or other setting to gain exposure to management tasks. Prerequisites: Senior status; completion of RESP 400, 401, 402, 403, 404 with C or better, or permission of instructor. One hour lecture, two hours practicum per week.

423. EDUCATION SPECIALIZATION
2 hours credit
Designed to give the student basic fundamental knowledge of educational principles as well as experience in didactic and clinical instruction. The practical component enables students to participate in education activities that include developing instructional materials and aids for use in lecture and/or laboratory instruction. Prerequisites: Senior status; completion of RESP 400, 401, 402, 403, 404 with C or better, or permission of instructor. One hour lecture, four hours practicum per week.

424. CRITICAL CARE SPECIALIZATION
5 hours credit
Clinical experience in critical care areas designed to refine skills in patient assessment, data collection and clinical decision making. Patient rounds with cardiopulmonary specialists. Prerequisites: Senior standing, RESP 401, 402, 403 and 404 with C or better or permission of instructor. Supervised experience: 10 hours per week.

425. DIAGNOSTICS SPECIALIZATION
3 hours credit
Emphasis on sophisticated cardiopulmonary monitoring including Advanced Cardiac Life Support (certification offered). Prerequisites: Senior standing, RESP 401, 402, 403, 404 with C or better or permission of instructor. Two hours lecture, two hours laboratory per week.

490. INDEPENDENT STUDY
1-3 hours credit
Intensive study in a specific area of respiratory care negotiated between student and faculty member. May be taken twice under different course subtitles. Prerequisite: Permission of program director. One to three hours per week.
RUSSIAN (RUSS)

101. ELEMENTARY RUSSIAN I
3 hours credit
Beginning spoken and written Russian with emphasis on the alphabet, sound system, basic structures of the language and contemporary culture. Any student with two or more years of high school Russian or equivalent experience is ineligible for this course without expressed permission of the instructor. Three hours per week. Meets General Education IB.

102. ELEMENTARY RUSSIAN II
3 hours credit
Continued development of listening, speaking, reading and writing in Russian with further study of major grammatical structures and contemporary culture. Recommended Prerequisite: RUSS 101 or at least one year of high school Russian. Three hours per week. Meets General Education IB.

201. INTERMEDIATE RUSSIAN
3 hours credit
Continued development and refinement of language skills as well as exposure to contemporary culture. Recommended Prerequisite: RUSS 102 or at least two years of high school Russian. Three hours per week. Meets General Education requirement IB. Three hours per week.

SCIENCE (SCIE)

110. INTEGRATED SCIENCE I
4 hours credit
Introduces principles common to biology, physics, chemistry, earth science and astronomy and appropriate mathematical concepts. Activities include laboratories, field experiences and computer exercises. Six hours per week. Meets General Education IIIA or IIIIB.

210. INTEGRATED SCIENCE II
4 hours credit
Continues the SCIE 110 study of the principles of natural order through examination of the laws of conservation, energy, motion and thermodynamics. Individual and group activities include laboratories, field experiences and computer exercises. Required of MCTP students. Prerequisite: SCIE 110. Six hours per week. Meets General Education IIIIB.

310. INTEGRATED SCIENCE III
4 hours credit
Continues SCIE 210 study of the principles of natural order through examination of the laws of thermodynamics, cosmic evolution and evolution of life. Individual and group activities include laboratories, field experiences and computer exercises. Required of MCTP students. Prerequisite: SCIE 210. Six hours per week.

SOCIAL SCIENCE (SOSC)

300. SOCIAL SCIENCE INTERN PROGRAM
3 hours credit
Work study program with the primary emphasis on practical experiences to be learned while working with a governmental or community agency on the local, state or national level. Prerequisites: Junior or senior class standing with a major in history, political science, sociology or social science and approval of directors.

400. CURRENT PROBLEMS
3 hours credit
Study made of either general or special topics of our times, considered from the historic aspect and the present social and cultural setting in which they occur. Three hours per week.

499. HONORS
3 hours credit
Independent study, research and conferences undertaken by social science majors for department honors at the invitation of the department. May not be taken on a pass/no credit basis. Prerequisites: Approval of department, 21 hours of work in social science completed, minimum 3.5 average in social sciences.

SOCIAL WORK (SOWK)

200. INTRODUCTION TO SOCIAL WORK AND SOCIAL WELFARE
3 hours credit
Introduction to social work as a profession. Examination of the social welfare system as society’s response to human need and structure for delivery of social services. Overview of fields of social welfare service and social work roles in each field. Twenty-five hours of volunteer service in a social agency required. Three hours per week.

300. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I
3 hours credit
First course in a two-course human behavior continuum. Study of bio-psycho-social development from prenatal to young adulthood. Focus on privilege, oppression, prejudice and discrimination. Development of beginning assessment skills. Prerequisites: SOWK 200, BIOL 101 or 215 or 216, SOC 101, PSYC 101, or permission of instructor. Three hours per week.

302. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II
3 hours credit
Second course in a two-course human behavior continuum. Study of bio-psycho-social adult development/late adulthood and human behavior as affected by race, class, gender, age and sexual orientation. Attention to the experience of oppression and its impact on families and groups. Strategies to bring about social change in organizations and communities considered. Prerequisites: SOWK 200, 300 or permission of instructor. Three hours per week.

305. SOCIAL WELFARE POLICY
3 hours credit
Historical and analytical overview of social welfare policy in the United States. Selective examination of contemporary programs and services; analysis of policies; issues and problems; evaluation of programs and services for effectiveness. Prerequisite: SOWK 200 or permission of instructor. Three hours per week.

310. BASIC INTERVIEWING: SKILLS AND TECHNIQUES
3 hours credit
Develop basic interviewing skills for assessing, goal setting and intervention for use in home service and social work settings. Emphasis on skill application with diverse populations and student exploration of personal values and belief systems. May not receive credit for both SOWK 220 and SOWK 310. Prerequisite: Sophomore standing. Three hours per week.
316. SOCIAL WORK RESEARCH I  
3 hours credit  
The first of two courses in social work and evaluation research. Emphasis on understanding the development and use of scientific knowledge and the application of that knowledge to evaluate social work interventions and program evaluation. Special attention to applied research methodologies to enhance the student's use of evidence-based social work knowledge and skills. May not receive credit for both SOWK 315 and SOWK 316. **Three hours per week.**

317. SOCIAL WORK RESEARCH II  
3 hours credit  
The second of two courses focused on the basic concepts and methods of scientific inquiry used to build knowledge and evaluate practice. Builds and expands upon material covered in Social Work Research I. Topics include an introduction to program evaluation, single-subject designs, data analysis, descriptive and inferential statistics, presentation of data, report writing and application of findings to practice. Special attention is given to applied research methodologies that will enhance the student's use of evidence-based interventions. **Prerequisites: SOWK 316. Three hours per week.**

320. SOCIAL WORK PRACTICE I  
3 hours credit  
First of three practice courses preparing students for a generalist approach to social work practice. Emphasis on knowledge, values, ethics and skills needed to develop effective helping relationships. Includes basic theories for intervention with focus on micro level problem solving and basic interview skills. **Prerequisites: SOWK 200, 220, 300. Three hours per week.**

350. SOCIAL WORK WITH OLDER PEOPLE  
3 hours credit  
Study of older Americans and of the programs and policies designed to support them. Review of social work practice skills in providing direct service to older people. **Prerequisite: SOWK 200 or permission of instructor. Three hours per week.**

400. SOCIAL WORK PRACTICE II  
3 hours credit  
Second of three practice courses preparing students for a generalist approach to social work practice. Expands basic knowledge, values, ethics and skills, with emphasis on mezzo level problem solving. Includes theories and techniques for planning, assessment, intervention, evaluation and advocacy for families, treatment groups and task groups. **Prerequisites: SOWK 320, admission to the professional program. Corequisites: SOWK 405, 406. Three hours per week.**

405. FIELD INSTRUCTION IN SOCIAL WORK I  
3 hours credit  
Supervised experience in a social welfare agency with emphasis on methods and techniques of generalist social work practice. Opportunity to apply theory and develop skills in delivery of social services. **Prerequisites: SOWK 302, 320, admission to the professional program. Corequisites: SOWK 400, 406. Two working days per week. (P/F)**

406. FIELD INSTRUCTION SEMINAR I  
1 hour credit  
Weekly on-campus seminar concurrent with Field Instruction I. Small group discussion of field experience with related written assignments. **Prerequisite: SOWK 320. Corequisites: SOWK 400, 405. One hour per week.**

407. FIELD INSTRUCTION IN SOCIAL WORK II  
3 hours credit  
Continuation of direct experience in the delivery of social services within an assigned agency. Increased emphasis on assessment, intervention and evaluation skills of generalist social work. **Prerequisites: SOWK 405, 406. Corequisites: SOWK 408, 410. Two working days per week. (P/F)**

408. FIELD INSTRUCTION SEMINAR II  
1 hour credit  
Weekly on-campus seminar concurrent with Field Instruction II. Small group discussion of field experience with related written assignments. **Prerequisites: SOWK 405, 406. Corequisite: SOWK 407, 410. One hour per week.**

410. SOCIAL WORK PRACTICE III  
3 hours credit  
Third of three practice courses preparing students for a generalist approach to social work. Expands basic knowledge, values, ethics and skills, with emphasis on macro level problem solving and policy advocacy. **Prerequisite: SOWK 400. Corequisites: SOWK 407, 408. Three hours per week.**

450. SOCIAL WORK WITH FAMILIES AND CHILDREN  
3 hours credit  
Survey of child welfare services and examination of current policies in social work for children and their families. Consideration of practice issues in protective services, in-home services to families and substitute care including adoption and foster care. **Prerequisite: SOWK 200 or permission of instructor. Three hours per week.**

455. SUBSTANCE ABUSE: ISSUES AND SERVICES  
3 hours credit  
Study of alcohol and drug abuse. Topics include theoretical perspectives on abuse, pharmacological characteristics of commonly abused substances, and stages of dependence and addiction. Overview of societal response to substance abuse including law enforcement, treatment, rehabilitation and prevention. **Three hours per week.**

460. SOCIAL WORK IN CORRECTIONS  
3 hours credit  
Social work interventions in a variety of correctional settings. Focuses on professional role in court and correctional procedures within institutional and community-based programs. **Three hours per week.**

465. SOCIAL WORK IN HEALTH CARE  
3 hours credit  
Explores the role of social work practice in various health care settings. Emphasis on the changing concepts of health and illness. Evaluates the nature of health care organizations, funding mechanisms and ethical dilemmas in social work health care. **Three hours per week.**

470. SOCIAL WORK IN MENTAL HEALTH  
3 hours credit  
Investigates the role of the social work profession within the mental health delivery system utilizing a generalist social work approach. Social work and mental health concepts, policies, research methods and program development examined in social service agencies, community mental health facilities and institutional accommodations. **Three hours per week.**

475. SOCIAL WORK WITH PERSONS WHO HAVE DISABILITIES  
3 hours credit  
Overview of physical, social and emotional implications of disabilities within the context of generalist social work practice. Topics include sensitivity to discrimination in society, laws and services available, and personal and family adjustment to disability. **Three hours per week.**

484. SOCIAL WORK AND THE LAW  
3 hours credit  
Study of social welfare, family, consumer law and the legal authority of social agencies to make regulations. Guidelines for court testimony and rules of evidence presented. **Three hours per week.**
490. INDIVIDUAL DIRECTED STUDY
1-3 hours credit
Enables advanced students to pursue topics of their own choosing with the guidance and supervision of the faculty. Should not duplicate any course already offered by the department. Prerequisite: Senior standing.

499. SPECIAL TOPICS
1-3 hours credit
Provides opportunities for investigating special themes or issues of interest to students and the social work profession. May be repeated once under a different subtitle. Three hours per week.

550. SOCIAL WORK WITH FAMILIES AND CHILDREN
3 hours credit
Survey of child welfare services and examination of current policies in social work for children and their families. Consideration of practice issues in protective services, in-home services to families and substitute care including adoption and foster care. Three hours per week.

555. SUBSTANCE ABUSE: ISSUES AND SERVICES
3 hours credit
Study of alcohol and drug abuse. Topics include theoretical perspectives on abuse, pharmacological characteristics of commonly abused substances, and stages of dependence and addiction. Overview of societal response to substance abuse including law enforcement, treatment, rehabilitation and prevention. Three hours per week.

560. SOCIAL WORK IN CORRECTIONS
3 hours credit
Social work interventions in a variety of correctional settings. Focuses on professional role in court and correctional procedures within institutional and community-based programs. Three hours per week.

565. SOCIAL WORK IN HEALTH CARE
3 hours credit
Explores the role of social work practice in various health care settings. Emphasis on the changing concepts of health and illness. Evaluates the nature of health care organizations, funding mechanisms and ethical dilemmas in social work health care. Three hours per week.

570. SOCIAL WORK IN MENTAL HEALTH
3 hours credit
Investigates the role of the social work profession within the mental health delivery system utilizing a generalist social work approach. Social work and mental health concepts, policies, research methods and program development examined in social service agencies, community mental health facilities and institutional accommodations. Three hours per week.

575. SOCIAL WORK WITH PERSONS WHO HAVE DISABILITIES
3 hours credit
Overview of physical, social and emotional implications of disabilities within the context of generalist social work practice. Topics include sensitivity to discrimination in society, laws and services available, and personal and family adjustment to disability. Three hours per week.

584. SOCIAL WORK AND THE LAW
3 hours credit
Study of social welfare, family, consumer law and the legal authority of social agencies to make regulations. Guidelines for court testimony and rules of evidence presented. Three hours per week.

599. SPECIAL TOPICS
1-3 hours credit
Provides opportunities for investigating special themes or issues of interest to students and the social work profession. May be repeated once under a different subtitle. Three hours per week.

602. ETHICAL FOUNDATION OF SOCIAL WORK
2 hours credit
Focuses on the ethical issues in social work practice including a theoretical framework to examine ethical dilemmas and tools for reflections and analyses in a systematic way. Prerequisite: Graduate status. Two hours per week.

605. SOCIAL WELFARE POLICY:
FOUNDATIONS AND STRUCTURE
3 hours credit
Emphasis on social welfare as an institution, social work as a profession and both history and philosophy of social welfare as they have evolved and introduces the student to policy analysis. Prerequisite: For graduate study only. Three hours per week.

610. THEORETICAL ANALYSIS OF BEHAVIOR I
3 hours credit
Provides the student with an understanding of human behavior in the context of social environment. Examines the family as a social system and context for the development of individual members. Explores human development through the young adult phase of the life cycle. This course reflects social work's unique integration of theories drawn from biology, anthropology, economics, psychology and sociology in order to understand the multiple and complex influences on behavior and development. Presents several theories which explain human behavior and inform social work practice. The course explores areas of universality and difference across age, race, ethnicity, gender, social class, sexual orientation, disability and religious choice. Develop foundation assessment skills. Prerequisite: For graduate study only. Three hours per week.

616. SOCIAL WORK RESEARCH I
3 hours credit
The first of two courses in social work and evaluation research. Emphasis on understanding the development and use of scientific knowledge and the application of that knowledge to evaluate social work interventions and program evaluation. Special attention is given to applied research methodologies to enhance the student’s use of evidence-based social work knowledge and skills. Three hours per week.

617. SOCIAL WORK RESEARCH II
3 hours credit
The second of two courses focused on the basic concepts and methods of scientific inquiry used to build knowledge and evaluate practice. Builds and expands upon material covered in Social Work Research I. Topics include an introduction to program evaluation, single-subject designs, data analysis, descriptive and inferential statistics, presentation of data and report writing, and application of findings to practice. Special attention is given to applied research methodologies that will enhance the student’s use of evidence-based interventions. Prerequisite: SOWK 616. Three hours per week.

620. SOCIAL WORK PRACTICE I
3 hours credit
Emphasizes a generalist social work perspective for the mastery of practice theory and the development of engagement, assessment, intervention and evaluation skills related to social work practice with individuals and families. Prerequisite: For graduate study only. Three hours per week.

621. PRACTICE SKILLS LAB
1 hour credit
Focuses on developing interviewing skills for assessment planning and intervention with individuals, families and groups. Emphasis on developing counseling orientation
appropriate to working with people from various backgrounds. **Prerequisites/Corequisites:** SOWK 610, 620, 640. **One hour per week.**

### 622. SOCIAL WORK PRACTICE II
3 hours credit
Second of three practice courses preparing students for a generalist approach to social work practice. Expands basic knowledge, values, ethics, and skills, with emphasis on mezo level problem solving. Includes theories and techniques needed for practice within an organization and/or community context. **Prerequisites:** SOWK 620, 621. **Three hours per week.**

### 623. SOCIAL WORK PRACTICE III
3 hours credit
Third of three practice courses preparing students for a generalist approach to social work. Expands basic knowledge, values, ethics, and skills, with emphasis on macro level problem solving. Includes theories and techniques needed for practice within an organization and/or community context. **Prerequisites:** SOWK 610, 620, 640. **SOWK 630. THEORETICAL ANALYSIS OF BEHAVIOR II**
3 hours credit
Within the adult person-environment framework, this course presents social theories and data for a critical analysis of society, communities, social institutions and social organizations. The relationship among socialization, social structures and cultures is a main component. Special attention is given to human diversity and social inequality. **Prerequisite:** SOWK 610 or permission of advisor or department. **Three hours per week.**

### 640. FIELD INSTRUCTION I
2 hours credit
Students are required to participate in an agency-based field practicum for two days a week under the supervision of an agency-based field instructor with a M.S.W. **(P/F)**

### 645. FIELD INSTRUCTION II
3 hours credit
Students are required to participate in an agency-based field practicum for two days a week under the supervision of an agency-based field instructor with a M.S.W. **Prerequisite:** SOWK 640. **(P/F)**

### 650. ADVANCED PRACTICE WITH INDIVIDUALS
3 hours credit
Familiarizes the practitioner with strengths assessment, standardized diagnostic criteria and other processes used within the field to categorize behavior. Utilizes concepts of mental health, tying an accurate assessment to a specific intervention plan. Specific assessment techniques, including formal and informal mental status examinations, global assessment of functioning techniques and diagnostic assessment using the Diagnostic and Statistical Manual (DSM)-TR are explored. Emphasis on advanced interview skill techniques. **Prerequisite:** SOWK 635. **Three hours per week.**

### 653. SUBSTANCE ABUSE ASSESSMENT AND INTERVENTION
3 hours credit
Provides a comprehensive introduction to the recognition, assessment and intervention with persons who abuse substances. Attention is directed to the interactive effects of substance abuse on abusers, on other persons in the abusers’ lives and on society. Other topics explored in the course will include: models of chemical dependency, the dually-diagnosed client, and the comparison and contrast of selected models of intervention. **Prerequisite:** For graduate study only. Available to students who have completed the foundation curriculum. **Three hours per week.**

### 654. PSYCHOPATHOLOGY
3 hours credit
Provides extensive knowledge of the major forms of mental illness and their treatment. Develops competence in multi-axial assessment by mastering the accepted diagnostic code, DSM-IV TR. Provides skills in development of appropriate and contemporary treatment plans. Explores the factors associated with mental illness such as age, race, ethnicity and gender. **Prerequisites:** SOWK 600, 605, 610, 615, 620, 621, 630, 632, 635, 640, 645. **Three hours per week.**

### 655. EVALUATION OF SOCIAL WORK PRACTICE
3 hours credit
The study of practice-outcome research, single-case designs and program evaluation in social work. Student is familiarized with appropriate recording and measurement instruments with individuals, groups and families. **Prerequisite:** SOWK 615. **Three hours per week.**

### 660. ADVANCED PRACTICE WITH FAMILIES
3 hours credit
Builds upon theoretical perspectives and practice skills from both foundation-level and advanced-level curriculum. The course compares, evaluates and presents practice skills from the major models of family therapy. Course content focuses upon applied family interventions in social work practice. **Prerequisite:** SOWK 635. **Three hours per week.**

### 663. SUPERVISION AND ADMINISTRATION
3 hours credit
Introduces advanced-level students to supervision and administration in the human services. Students are introduced to the historical development of supervision in social work. Students will learn to apply knowledge of three primary supervisory functions: administration, education and support of supervisees. Additionally, students will focus on organizational theory as it provides a foundation to models of social work/welfare administration within social welfare delivery systems. **Prerequisite:** Foundation curriculum for the M.S.W. program. **Three hours per week.**

### 665. FIELD INSTRUCTION III
4 hours credit
An advanced field practicum experience for both second-year and advanced-standing students. Students are required to participate in an agency-based field practicum for three days per week under the supervision of an agency-based M.S.W. **Prerequisite:** SOWK 645. **(PF)**

### 675. ADVANCED PRACTICE WITH COMMUNITIES AND ORGANIZATIONS
3 hours credit
Provides knowledge of practice theory and intervention strategies and techniques for social work practice with organizations and communities. This second year course in the advanced practice sequence focuses on intervention within organizational and community contexts. Engages students in the identification and use of practice knowledge and intervention strategies to be used with “intermediate systems” that mediate the relationships of individuals, families, groups and the larger society. Builds upon the generalist foundation of the first year and helps the student analyze varying practice situations. Theories of community and organizational behavior and the practice theory and skills to work with a variety of system levels are the principle foci. **Prerequisite:** SOWK 635. **Three hours per week.**

### 677. CHILD WELFARE
3 hours credit
Designed to prepare advanced-level students to be child welfare practitioners able to move beyond the protective focus to practice applications of prevention and change. The curriculum includes knowledge about human services for children, the values and philosophy of family preservation, trends in social welfare policy impacting children and their families, and
the effects of gender, race and ethnicity on social work practice with children. **Prerequisite:** Foundation curriculum for the M.S.W. program. **Three hours per week.**

680. ADVANCED PRACTICE WITH GROUPS
3 hours credit
Builds upon theoretical perspectives from human behavior and the social environment, knowledge and skills from foundation-level practice courses, and theory and skills from the advanced theory and practice course. The course familiarizes the practitioner with the concept of the group as therapeutic communities with curative factors. **Prerequisite:** SOWK 635. **Three hours per week.**

685. FIELD INSTRUCTION IV
4 hours credit
The second of two advanced field practicum experiences for both second-year and advanced-standing students. Students are required to participate in an agency-based field practicum for three days per week under the supervision of an agency-based M.S.W. **Prerequisite:** SOWK 665. (P/F)

690. INDIVIDUAL DIRECTED STUDY
1-3 hours credit
Enables students to pursue topics of their own choosing with the guidance and supervision of the faculty. Should not duplicate any course already offered by the department. **Prerequisites:** Graduate status. **One to three hours per week.**

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**SOCIOLOGY (SOCI)**

101. INTRODUCTION TO SOCIOLOGY
3 hours credit
Identification and analysis of basic concepts of sociology; study of inter-relatedness of structures, systems and institutions, and of the social processes by which society evolves. **Three hours per week. Meets General Education IIB.**

201. SOCIAL PROBLEMS
3 hours credit
Analysis of selected social problems in contemporary society. Emphasis on sociological understanding of the processes by which social problems are defined. **Meets General Education IIB.**

210. INTRODUCTION TO GLOBAL SOCIOLOGY
3 hours credit
An introduction to global sociology, an increasingly popular area in sociology. Topics such as globalization, the international division of labor and international inequality will be examined and discussed. A group of broad-based macro-level theories will assist in the analysis of global social issues such as world hunger, worldwide peace, indigenous populations, sustainable development and pollution. **Three hours per week. Meets General Education IIB.**

220. THE FAMILY
3 hours credit
Examines of the diversity of families in the U.S. Study of the demographic trends in family formations, marital arrangements, parenting and childbearing, and such controversial issues as unmarried couples, alternative families, abortion, surrogacy and violence in families. May not receive credit for both SOCI 316 and SOCI 220. **Three hours per week. Meets General Education IIB.**

225. SOCIOLOGY OF CONFLICT AND NONVIOLENCE
3 hours credit
Seeks answers to questions about why humans use violence to resolve conflict and what social forces produce conflict in the family, ethnic and racial groups, economic groups and nation states. Explores nature and practice of nonviolent conflict resolution. Cross-listed with CADR 225. May not receive credit for both CADR 225 and SOCI 225. **Three hours per week. Meets General Education IIB.**

250. RACE RELATIONS IN GLOBAL PERSPECTIVE
3 hours credit
Explores the socio-history of diasporas and race relations in global perspective. Several broad-based macro-level theories will facilitate the exploration of the world’s major diasporas in the last 500 years. Reviews and examines the socio-historical connections between these diasporas and today’s race relations in conjunction with the development of global capitalism. **Three hours per week. Meets General Education IIB.**

301. STUDIES IN SOCIOLOGY
3 hours credit
Selected areas in varied subfields of sociology. May be repeated under different subtitles. **Three hours per week. Meets General Education IIB.**

304. SOCIAL INEQUALITY
3 hours credit
Analysis of the variety of class and rank structures found in both past and contemporary societies. Special attention focused on the determinants of social class as well as the related issues of social mobility and changes in class position of both individuals and groups. Additional emphasis on identifying both attitudinal and behavioral consequences of class position. **Three hours per week. Meets General Education IIB.**

305. SOCIOLOGY OF LAW
3 hours credit
Study of formal legal statements as communications both reflecting and influencing life in society. Selected examples of the conflict between legality and social reality, with attention to both substantive and procedural issues of law; consideration of possible solutions. **Three hours per week. Meets General Education IIB.**

309. RESEARCH I, SOCIAL RESEARCH METHODS
3 hours credit
Introduction to social science research methods. Emphasis on research design, including formulation of questions, conceptualization, measurement, sampling and involvement in practical research activity. Cross-listed with CADR 309. May not receive credit for both CADR 309 and SOCI 309. **Three hours per week. Meets General Education IIB.**

310. RESEARCH II, STATISTICAL METHODS
4 hours credit
Advanced training in social science research methods. Emphasis on data analysis, including organization of data for computer processing, hypothesis testing and simple causal modeling. Cross-listed with CADR 310. May not receive credit for both CADR 310 and SOCI 310. **Prerequisite:** CADR/SOCI 309. Three one-hour lectures, one two-hour laboratory per week.

313. CRIMINOLOGY AND PENOLOGY
3 hours credit
Consideration of crime and delinquency as forms of deviant behavior; examination of social causes, social reactions and applicable sociological theories. **Meets General Education IIB.**

314. SOCIOLOGY OF GENDER
3 hours credit
Study and analysis of the institutional and cultural bases of gender roles, gender socialization, gender inequality, gender movements and gender role change. May not receive credit for both SOCI 216 and SOCI 314. **Three hours per week. Meets General Education IIB.**
315. URBAN SOCIOLOGY
3 hours credit
Study of the origin, character and significance of urban communities. Analyzes the ecology and social organizations of cities, the phenomenon of urban and metropolitan development, and the resulting lifestyles, problems and trends. Three hours per week. Meets General Education IIB.

318. SOCIOLOGY OF RELIGION
2 hours credit
Examination of humanity's quest for religious meaning as a social activity with social consequences. Considers the place of religion in different kinds of societies, past, present and future. Three hours per week. Meets General Education IIB.

319. GLOBALIZATION AND SOCIAL CHANGE
3 hours credit
Explores social change on a global scale and examines sociocultural factors driving economic, social and cultural globalization. This course is a critical evaluation of policies intended to promote globalization as well as effects of social practices that facilitate globalization. Three hours per week. Meets General Education IIB.

320. SOCIAL MOVEMENTS
3 hours credit
In-depth study of contemporary social movements, such as the Black Muslims, Gay Liberation, the Women's Movement, the aged, youth and radical right. Three hours per week. Meets General Education IIB.

322. POPULATION STUDIES
3 hours credit
Introduction to social demography which is the study of changes in the size, composition and distribution of the world's population. Includes analysis of population dynamics and factors that drive changes in human populations as well as critical evaluation of effects of changes in human population. Three hours per week. Meets General Education IIB.

324. COMMUNITY SOCIOLOGY
3 hours credit
Investigation of communities as social systems emphasizing current directions in community research. Three hours per week. Meets General Education IIB.

325. SEXUALITY, ALTERNATIVES AND SOCIETY
3 hours credit
This course examines the social construction of sexual behavior and sexual identity in a cultural context, as well as the relationship between physiology, gender and sexuality. Topics include: theories and history of sexuality as a social marker, social inequality and sexuality, the institutionalization of sexuality, sexual behavior, and identity formation and cross cultural practices. A major focus of the course is on lesbian, gay, bisexual, transgender and transsexual experiences. Three hours per week. Meets General Education IIB.

326. SOCIAL INTERACTION
3 hours credit
Study of human behavior as social interaction. Emphasis on symbolic communication and its relationship to the concept of self. Meets General Education IIB.

329. MEDICAL SOCIOLOGY
3 hours credit
Study of social factors involved in health and illness emphasizing the institution of medicine in American society. Three hours per week. Meets General Education IIB.

330. DEATH, DISEASE AND SOCIETY
3 hours credit
Analysis of changing patterns of causation and distribution of death and disease. Major emphasis given to the study of suicide and homicide. Three hours per week. Meets General Education IIB.

331. RACIAL AND CULTURAL MINORITIES
3 hours credit
Study of ethnic differences that produce prejudice, stereotypes and discrimination and of the social processes employed by dominant and minority groups. Three hours per week. Meets General Education IIB.

334. SOCIOLOGY OF MENTAL HEALTH
3 hours credit
Study of sociocultural factors in mental health and illness emphasizing social causation and patterns of distribution. Three hours per week. Meets General Education IIB.

335. SYSTEMS OF HEALTH CARE DELIVERY
3 hours credit
Analysis of the institution of health care and its delivery. Major emphasis on the diversity of organization in this institution in differing social systems. Three hours per week. Meets General Education IIB.

344. COMPLEX ORGANIZATIONS
3 hours credit
Analysis of the emergence of modern bureaucratic structure, emphasizing institutionalization, patterns of authority and impact on personality. Meets General Education IIB.

361. AGING AND SOCIETY
3 hours credit
Examination of the aging process from the sociological perspective. Emphasis on the position of the elderly in contemporary society and on age-roles associated with stages in the process of aging such as childhood, adolescence, adulthood and old age. Meets General Education IIB.

363. WOMEN AND DEVELOPMENT
3 hours credit
Explores women's roles in processes of economic, political and social development from a global perspective with a focus on less developed countries. Provides a review of the theory and analysis of women's roles in development processes through case studies examining particular effects of general trends affecting women associated with globalization and development. Prerequisite: Junior standing or permission of the instructor. Three hours per week. Meets General Education IIB.

390. SOCIOLOGY OF THE ENVIRONMENT
3 hours credit
Examines the environment as a social product. Uses the sociological perspective to explain how environmental problems are structurally created. Focuses on mining and forestry to illustrate how environmental degradation, disease, death and disability are produced. Three hours per week. Meets General Education IIB.

401. SPECIAL TOPICS
3 hours credit
Reserved for courses approved as experimental responses to student interest or community need. May be repeated once under a different subtitle. Meets General Education IIB.

409. SOCIOLOGY OF EDUCATION
3 hours credit
Analysis of public education as a bureaucratic social institution, the countervailing community power structure and the professional role of the educator. Three hours per week. Meets General Education IIB.

416. INDIVIDUAL DIRECTED STUDY
3 hours credit
Advanced study in an area of sociology. May be repeated
once under a different subtitle. **Prerequisite:** Permission of instructor who will direct the study. *Three hours per week.*

421. THEORY I, FOUNDATIONS OF SOCIOLOGICAL THEORY  
3 hours credit  
Analysis of the historical antecedents and contemporary profiles of sociological theory emphasizing major figures and dominant paradigms. **Prerequisite:** SOCI 101 or permission of instructor. *Three hours per week.*

422. THEORY II, CONTEMPORARY SOCIOLOGICAL THEORY  
3 hours credit  
Analysis of the current state and future directions of sociological theory. **Prerequisite:** SOCI 101 or permission of instructor. *Three hours per week.*

431. SENIOR SEMINAR  
3 hours credit  
Seminar experience for senior students with emphasis on social theory, problems and research. **Prerequisite:** Fifteen hours of sociology or permission of instructor. *Three hours per week.*

495. INDEPENDENT STUDY FOR DEPARTMENT HONORS  
3 hours credit  
Independent study undertaken for departmental honors at the invitation of the department. **Prerequisites:** Approval of chair, permission of instructor who will direct the study.

497. UNDERGRADUATE RESEARCH  
3 hours credit  
Applies social research methods to a specific research project which includes hypothesis formulation, research design, data collection, data analysis and a presentation in some public forum. **Prerequisite:** CADR/SCSI 309 or permission of instructor. *Three hours per week.*

498. INTERNSHIP IN SOCIOLOGY  
3 hours credit  
Provides students practical experience in addressing selected social issues in a public or private sector community organization. Field notes, periodic meetings with instructor, and typed reports analyzing an experience and a social issue are required. A maximum of three credits may be applied toward the sociology major. **Prerequisites:** SOCI 101 or 201, junior standing, permission of the instructor. *Eight to 10 hours per week.*

501. SPECIAL TOPICS  
3 hours credit  
Reserved for courses approved as experimental responses to student interest or community need. May be repeated once under a different subtitle.

509. SOCIOLOGY OF EDUCATION  
3 hours credit  
Analysis of public education as a bureaucratic social institution, the countervailing community power structure and the professional role of the educator. *Three hours per week.*

516. INDIVIDUAL DIRECTED STUDY  
3 hours credit  
Intensive study in a specific area of sociology agreed upon by student and faculty. May be repeated once under a different subtitle. **Prerequisites:** Six hours in sociology, a concentration in sociology and permission of instructor who will direct the study.

521. THEORY I, FOUNDATIONS OF SOCIOLOGICAL THEORY  
3 hours credit  
Analysis of the historical antecedents and contemporary profiles of sociological theory emphasizing major figures and dominant paradigms. **Prerequisite:** SOCI 101 or permission of instructor. *Three hours per week.*

522. THEORY II, CONTEMPORARY SOCIOLOGICAL THEORY  
3 hours credit  
Analysis of the current state and future directions of sociological theory. **Prerequisite:** SOCI 101 or permission of instructor. *Three hours per week.*

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**SPANISH (SPAN)**

101. ELEMENTARY SPANISH I  
3 hours credit  
Beginning spoken and written Spanish with emphasis on the sound system and the basic structures of the language. Any student with two or more years of high school Spanish or equivalent experience is ineligible for this course without expressed permission of the instructor. *Three hours per week. Meets General Education IB.*

102. ELEMENTARY SPANISH II  
3 hours credit  
Continued skill development in spoken and written Spanish with further study of major structures. **Recommended Prerequisite:** SPAN 101 or at least one year of high school Spanish. *Three hours per week. Meets General Education IB.*

201. INTERMEDIATE SPANISH  
3 hours credit  
Continued development and refinement of language skills with emphasis on reading, writing and vocabulary development. **Recommended Prerequisite:** SPAN 102 or at least two years of high school Spanish. *Three hours per week. Meets General Education IB.*

202. SPANISH IN REVIEW  
3 hours credit  
Refinement and application of language skills by exploring diverse forms of expression in Spanish. Satisfies the language requirement for English majors. **Recommended Prerequisite:** SPAN 201 or at least three years of high school Spanish. *Three hours per week. Meets General Education IB.*

300. TOPICS IN SPANISH  
3 hours credit  
Study of an author, period, movement, genre or theme. Topic varies semester to semester. May be repeated once with new content. **Prerequisite/Corequisite:** SPAN 310. *Three hours per week.*

309. SUMMER PROGRAM IN SPAIN  
4 hours credit  
Students spend five weeks living and studying in Malaga, Spain. Multi-focused course covers language, culture, history and art of Spain, as well as cultural themes. Excursions to Granada, Cordoba and Sevilla included. This course fulfills the study abroad requirement. **Prerequisites:** SPAN 202 and approval of program director. *Twelve hours per week for five weeks.*

310. ORAL AND WRITTEN COMPOSITION  
3 hours credit  
Develops facility to sustain oral and written discussion in Spanish. Students practice the basic patterns of Spanish syntax and develop vocabulary by preparing frequent oral and written compositions. **Recommended Prerequisite:** SPAN 202 or equivalent experience. *Three hours per week.*
312. CONVERSATION
3 hours credit
Develops confidence and correctness in spoken Spanish through practice in conversation, reports and discussions. **Prerequisite/Corequisite:** SPAN 310. Three hours per week.

315. SPANISH CULTURE AND CIVILIZATION
3 hours credit
Study of the key cultural patterns in Spanish life including the themes of religion, family relationships and festivals and the dilemmas of work-leisure, sports-cruelty and honor-death through prose, drama and other selected material. **Prerequisite/Corequisite:** SPAN 310. Three hours per week.

316. LATIN AMERICAN CULTURE AND CIVILIZATION
3 hours credit
Study of key cultural patterns with particular attention to the results of transplantation to the New World. The major vehicle of examination is the written word in prose, drama and other selected material. **Prerequisite/Corequisite:** SPAN 310. Three hours per week.

322. SPANISH FOR BUSINESS
3 hours credit
Develops the ability to use Spanish to conduct business in both the U.S. and abroad. Provides a solid foundation in the vocabulary and discourse related to the modern business office, economics, management, marketing, banking and other aspects of a business environment. **Prerequisite/Corequisite:** SPAN 310. Three hours per week.

330. TOPICS IN HISPANIC LITERATURE IN TRANSLATION
3 hours credit
Reading, analysis and discussion of some of the classic works of Spanish and Latin American literature. Taught in English. Does not count toward the Spanish minor. May be taken only once for credit toward the Spanish major. Cross listed with ENGL 316. **Prerequisite:** C or better in ENGL 102. Three hours per week. Meets General Education IA.

335. SURVEY OF SPANISH LITERATURE
3 hours credit
A survey of the foundational literary texts, authors and movements from the Middle Ages through contemporary Spain. **Recommended Prerequisite/Corequisite:** SPAN 310. Three hours per week. Meets General Education IA.

336. SURVEY OF LATIN AMERICAN LITERATURE
3 hours credit
Study of the evolution of Latin American literature. Provides students with the opportunity to read, analyze, discuss and write about seminal works by representative writers from each literary movement and genre. **Recommended Prerequisite/Corequisite:** SPAN 310. Three hours per week. Meets General Education IA.

400. ADVANCED STYLISTICS AND ORAL EXPRESSION
3 hours credit
Refinement and sophistication of written and oral expression in Spanish. **Prerequisite:** SPAN 310 or permission of instructor. Three hours per week.

403. HISPANIC CULTURE THROUGH LITERATURE
3 hours credit
Study of modern Spanish and Spanish American literature within its cultural context. Students will explore the literary text as cultural document including the roles of Afro-Hispanics, indigenous peoples, religion, women, politics and poverty in the formation of Hispanic cultures. May not receive credit for both SPAN 325 and SPAN 403. **Prerequisite:** SPAN 335 or 336 or permission of instructor. Three hours per week.

410. TOPICS IN HISPANIC LITERATURE
3 hours credit
In-depth study of a particular writer, work, theme or movement in Spanish and/or Latin American literature. **Prerequisites:** SPAN 335 and 336 or permission of instructor. Three hours per week.

480. SENIOR SEMINAR
1-3 hours credit
For senior Spanish majors. Research encompassing several areas of Spanish life and culture, language and literature is brought to bear upon a single theme or issue. **Prerequisite:** Senior standing.

496. SPANISH INDEPENDENT STUDY
1-3 hours credit
Individual study in any areas of language, culture or literature of the Spanish-speaking world with the advice and direction of a member of the department. May be repeated with new content for a maximum of six credits. **Prerequisites:** Junior standing and permission of department chair.

497. UNDERGRADUATE RESEARCH
1-3 hours credit
Designed to encourage students to pursue an area of original research in Spanish linguistics, cultural or literary studies of Spain or Latin America. Allows student to study a subject area in more depth than is possible in the traditional classroom setting. Public presentation of research is required. May be repeated for a total of six credits. **Prerequisites:** Junior standing and permission of department chair and instructor who will direct study.

498. INTERNSHIP
3 hours credit
Students will perform a minimum of six hours of service per week over a 13-week period, in a social service agency that assists Hispanics and other ethnic groups of the community. They will meet for 50 minutes biweekly in seminar to discuss the textbook, their experiences and share their reflections about the situations of the Spanish population in the area. May be repeated for a total of six credits. **Prerequisites:** Permission of the instructor and the chair of the department.

500. ADVANCED STYLISTICS AND ORAL EXPRESSION
3 hours credit
Refinement and sophistication of written and oral expression in Spanish. **Prerequisite:** Graduate status. Three hours per week.

503. HISPANIC CULTURE THROUGH LITERATURE
3 hours credit
Study of modern Spanish and Spanish American literature within its cultural context. Students will explore the literary text as cultural document including the roles of Afro-Hispanics, indigenous peoples, religion, women, politics and poverty in the formation of Hispanic cultures. **Prerequisite:** Graduate status. Three hours per week.

510. TOPICS IN HISPANIC LITERATURE
3 hours credit
In-depth study of a particular writer, work, theme or movement in Spanish and/or Latin American literature. **Prerequisite:** Graduate status. Three hours per week.

596. SPANISH INDEPENDENT STUDY
1-6 hours credit
Individual study in any areas of language, culture or literature of the Spanish-speaking world with the advice and direction of a member of the department. Open to juniors. May be repeated with new content for a maximum of six credits. **Prerequisite:** Graduate status.
THEATRE (THEA)

120. INTRODUCTION TO THEATRE
3 hours credit
Introduction to theatre as a unified art with emphasis upon the literary and social significance of theatre in our society. Three hours per week. Meets General Education IB.

121. TECHNICAL PRODUCTION
4 hours credit
Practical experience in technical theatre including set construction, scene painting, lighting and sound. Three hours lecture, two-hour laboratory per week. Meets General Education IB.

122. MOVEMENT AND PERFORMANCE
3 hours credit
Examines using the body as an expressive instrument in various media and styles. Relaxation, breathing techniques, kinesthetic and spatial awareness are explored through practical and creative applications. Physical/vocal exercises, movement studies, storytelling and short scenes offer opportunities for experiential learning. Three hours per week. Meets General Education IB.

125. THEATRE PRACTICUM
1-2 hours credit
Provides supervised experience in theatre production and performance. May be repeated for a total of eight credit hours. Prerequisite: Permission of the instructor. (P/F)

201. ELEMENTS OF VOICE AND DICTION
3 hours credit
Study of the fundamentals of voice production and articulation. Designed to establish good habits of speech through analysis of each student's voice, articulation and pronunciation, with directed exercises for improvement. Three hours per week. Meets General Education IB.

220. HISTORY OF THE THEATRE
3 hours credit
Survey of theatre history, dramatic theory, plays and playwrights, production practices and performance styles, emphasizing their relationship to the development of world civilization as both product of and mirror to changing values, tastes, attitudes and customs. Three hours per week. Meets General Education IB.

222. COSTUMING AND THEATRE CRAFTS
3 hours credit
Through lectures and guided practice, students develop skills in the principles of design, drawing, construction techniques and theatre crafts. Three hours per week.

223. MAKEUP FOR STAGE AND TELEVISION
3 hours credit
Practical survey of techniques in the application of theatrical makeup for performance on stage as well as television and film. Recommended for all performers. One hour lecture, one two-hour laboratory per week and required practical application in productions. Meets General Education IB.

224. ACTING
3 hours credit
Study of the theory and basic principles of the creative processes of acting with an emphasis on physical, mental and emotional process in the building of a dramatic character. Three hours per week. Meets General Education IB.

319. ADVANCED THEATRE HISTORY: RENAISSANCE TO REALISM
3 hours credit
Designed as a continuation of THEA 220, this course begins with an overview of principal influences on the shaping of the aesthetics of drama as evidence in Shakespeare and his contemporaries. The course moves through the social, political and philosophical forces which shaped the theatre in the emergence of the modern world. Prerequisite: THEA 220. Three hours per week.

321. ADVANCED TECHNICAL PRODUCTION
3 hours credit
Advanced study of the art and craft of scenery through experience in drafting, scene painting, period study and model building for theatre and television. Prerequisite: THEA 121 or permission of instructor. Two hours lecture, two hours laboratory per week.

322. ARTS ADMINISTRATION
3 hours credit
Introduction to administrative skills for fine and performing arts: programming, budget, public relations, audience development, fund raising and case studies of arts organizations. May not receive credit for both MUSC 322 and THEA 322. Prerequisite: Department chair approval. Three hours per week.

323. COSTUME DESIGN
3 hours credit
Emphasis on the concept of costume design as it relates to character analysis. The student translates the interpretation of character(s) into functional costume renderings. Professionally oriented; for those interested in producing high school or community theatre. Prerequisite: THEA 222 or permission of instructor. Three hours per week.

324. DIRECTING
3 hours credit
Study of the theory and basic principles, skills and techniques underlying direction. Student-directed theatre production required. Prerequisite: THEA 224 or permission of instructor. Three hours per week.

325. ORAL INTERPRETATION
3 hours credit
An approach to the study of literature through the medium of oral performance. May be counted as an English elective for students majoring in English. Three hours per week. Meets General Education IB.

326. ACTORS' WORKSHOP
3 hours credit
Provides experience training for intermediate and advanced acting through the exploration of improvisational techniques, character analysis, scene work and exercises in acting style. Prerequisite: THEA 224.

327. READERS' THEATRE
3 hours credit
Covers the philosophy and uses of Reader's Theatre. Emphasis on the analysis, adaptation and staging of non-dramatic literature within the context of this art form. Lecture/workshop format will be employed. Prerequisite: THEA 224 or permission of instructor. Three hours per week.

328. SCENE DESIGN FOR THEATRE AND TELEVISION
3 hours credit
Study of scene design as a visual art and as a part of total television and theatre production. Perception and execution of scene designs through script analysis and practical experiences. Prerequisite: THEA 121 or permission of instructor. Three hours per week.

329. MEDIA LIGHTING
3 hours per week
Study of lighting as a vital component of technical production. Includes design and technology of theatre, television and

Spanish / Theatre
video lighting. Prerequisite: THEA 121 or permission of instructor. Three hours per week.

392. STUDIES IN THEATRE
3 hours credit
Study of various theatrical processes and concepts as they impact the theatre world and contemporary society. May be repeated a maximum of two times under different subtitles. Prerequisite: junior standing or permission of the instructor. Three hours per week.

422. INTERNSHIP IN ARTS ADMINISTRATION
6-12 hours credit
Training in local, regional or national arts organizations; selected areas of programming, budget, fund raising, audience development and public relations. May be taken once. Prerequisites: THEA 322, department chair approval. Twenty to 40 hours per week. (P/F)

424. PLAYWRITING
3 hours credit
Study of the theory and practice of playwriting. Topics include exposition, language, structure and character. Plays to be written and produced in staged readings of workshops. Prerequisites: THEA 120, permission of instructor. Three hours per week.

450. ACTING SHAKESPEARE
3 hours credit
Advanced scene study acting course which focuses on the challenges specific to blank verse. Students will be guided through exercises which explore and refine technical skills. Prerequisites: THEA 201, 220 and 224. Three hours per week.

451. ACTING COMEDY
3 hours credit
Principle elements of comedy, comic-dramatic literature and comic performance explored through improvisation and a wide range of styles. Intensive workshop/scene study setting. Prerequisites: THEA 201, 220 and 224. Three hours per week.

453. CREATIVE DRAMATICS
3 hours credit
Emphasis on the manner in which creative dramatics assists in the growth of the child. Considers creative dramatics as a motivating factor in the teaching and learning process. Three hours per week. Meets General Education IB.

456. TECHNIQUES OF CHILDREN’S THEATRE
3 hours credit
Assists the elementary school teacher in developing the imagination of children through the medium of theatre. Emphasis on staging children’s theatre within the framework of the public school. Three hours per week. Meets General Education IB.

458. RADIO THEATRE
3 hours credit
“Theatre of the Mind” as a performance genre examined in terms of scripting and performance needs. Develops imagination and resourcefulness in scripting and performance tasks. Prerequisite: CMAT 110. Three hours per week.

490. THEATRE SEMINAR
3 hours credit
Intensive study of a selected topic in theatre. May be taken twice under different subtitles. Prerequisite: Junior standing. Three hours per week.

492. INDEPENDENT STUDY
1-3 hours credit
Students select a topic for investigation with the advice of an instructor prior to registration. Variable credit; may be taken twice. Prerequisite: Permission of instructor. Variable hours.

495. INTERNSHIP IN THEATRE
3 hours credit
Provides practical experience in the application of theoretical concepts including design, technical theatre, directing, acting, arts administration or any other field related to professional theatre or theatre studies. Only three hours may be counted toward upper-level major requirements. May be taken twice for a total of six credit hours. Prerequisites: Junior standing, permission of department chair. Three hours per week.