

Courses

www.salisbury.edu/registrar/course_schedules.html

PLEASE NOTE:

- All courses 500 level and above are for graduate credit only.
- For courses in the Henson School of Science and Technology (BIOL, CHEM, COSC, ENGR, ENVH, GEOG, GEOL, MATH, MDT, NURS, SCIE, PHYS, RESP), please see the Henson School Course Repeat Policy in Appendix F.

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. INTRODUCTION TO FINANCIAL ACCOUNTING

3 hours credit

Provides students with a general overview of financial accounting including the underlying accounting principles and concepts, financial statement preparation, financial statement analysis, cash flow, etc. **Prerequisite:** Twenty-four college credit hours taken at or accepted by SU. **Three hours per week.**

202. INTRODUCTION TO MANAGERIAL ACCOUNTING

3 hours credit

Provides an understanding of the use of accounting in business operations. Topics include job order costing, cost behavior (cost-volume-profit analysis), budgeting, performance valuation using variances from standard cost, differential analysis, capital investment analysis, cost allocations including activity-based costing, the cash flow statement, financial statement analysis, etc. **Prerequisite:** ACCT 201 (Accounting, Business Economics, International Business, Management and Marketing majors with C or better). **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

Emphasizes the use of accounting information for budgeting, planning and control, and decision making. Topics include integrated budgeting, variance analysis, job-order costing, activity-based costing, relevant costs for decision making, etc. **Major Prerequisites:** ACCT 201, 202 (Accounting, Business Economics, International Business, Management and Marketing majors with C or better) and junior standing. **Non-Major Prerequisites:** C or better in ACCT 201, 202 and junior standing. **Three hours per week.**

304. INTERMEDIATE ACCOUNTING I

3 hours credit

Detailed analysis of the accounting cycle. In-depth coverage of financial statements and account analysis. Classification, valuation and timing involved in the determination of income and asset/equity measurement. Special attention devoted to revenue recognition, tax, lease and pension transactions. Emphasis on comprehension, critical thinking and problem solving. Consideration of recent FASB pronouncements as well as structure and use of FASB's Accounting Standards Codification. **Major Prerequisites:** ACCT 201, 202 (Accounting, Business Economics, International Business, Management and Marketing majors with C or better) and junior standing. **Non-Major Prerequisites:** C or better in ACCT 201, 202 and junior standing. **Three hours per week.**

305. INTERMEDIATE ACCOUNTING II

3 hours credit

Continued emphasis on generation and presentation of financial statements through use of Business Activity Model. Special attention devoted to inventory valuation, analysis of long-term debt instruments, derivatives, asset impairment and share-based compensation. Emphasis on comprehension, critical thinking and problem solving. **Major Prerequisites:** C or better in ACCT 304, successful completion of the Accounting Program admission test and admission to the Professional Program. **Non-Major Prerequisites:** C or better in ACCT 304, successful completion of the Accounting Program admission test and junior standing. **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. **Major Prerequisites:** C or better in ACCT 202 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 202 and junior standing. **Three hours per week.**

338. SPECIAL TOPICS IN ACCOUNTING

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). **Major Prerequisites:** C or better in ACCT 304 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 304 and junior standing. **Three hours per week.**

341. FEDERAL INCOME TAX ACCOUNTING: PERSONAL

3 hours credit

Discussion of technical tax provisions as they pertain to individuals. Limited discussion of corporation and partnership tax issues. Introduction to tax research. Introduction to use and completion of IRS forms. This course, along with successful participation in the VITA program through ACCT 490, qualifies for elective ABLE credit. **Major Prerequisites:** C or better in ACCT 201, 202 and admission to the Professional Program. **Non-Major Prerequisites:** C or better in ACCT 201, 202 and junior standing. **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 and partnerships. Review and analysis of corporate tax provisions. Use and completion of IRS forms. **Major Prerequisites:** C or better in ACCT 341 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 341 and junior standing. **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. **Major Prerequisites:** C or better in ACCT 248 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 248 and junior standing. **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. **Major Prerequisites:** C or better in ACCT 202 and admission to Professional Program. **Major Prerequisites:** C or better in ACCT 202 and junior standing. **Three hours per week.**

403. ADVANCED ACCOUNTING I**3 hours credit**

Examines the duties and responsibilities of auditors and introduces legal liability, generally acceptable auditing standards, audit reports, auditing techniques and procedures. Discussion of engagement planning, tests of internal controls, sampling, types of engagements and workpaper preparation. **Major Prerequisites:** Senior status, C or better in ACCT 305 and admission to Professional Program. **Non-Major Prerequisites:** Senior status and C or better in ACCT 305. **Three hours per week.**

407. AUDITING**3 hours credit**

Examines the duties and responsibilities of auditors and introduces legal liability, generally acceptable auditing standards, audit reports, auditing techniques and procedures. Discussion of engagement planning, tests of internal controls, sampling, types of engagements and workpaper preparation. **Major Prerequisites:** Senior status, C or better in ACCT 305 and admission to Professional Program. **Non-Major Prerequisites:** Senior status and 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. **Major Prerequisites:** C or better in ACCT 305 or permission of the department chair, and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 305 or permission of the department chair, and junior standing. **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. **Major Prerequisites:** C or better in ACCT 305 or permission of the department chair, and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 305 or permission of the department chair, and junior standing. **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. **Major Prerequisites:** C or better in ACCT 304 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 304 and junior standing. **Three hours per week.**

418. FRAUD EXAMINATION**3 hours credit**

An introduction to fundamentals of fraud examination, including nature and types of fraud, fraud prevention, and techniques to detect fraud in organizations. Provides the foundation to understanding fraud and its impact on the world around us. **Prerequisites:** C or better in ACCT 201, 202; and 56 credits. **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. **Major Prerequisites:** C or better in ACCT 304 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 304 and junior standing. **Three hours per week.**

430. INTERNATIONAL ACCOUNTING**3 hours credit**

Introduction to a variety of international accounting issues encountered by multinational organizations. Areas of focus include International Financial Reporting Standards, consolidations, transfer pricing, taxation, international auditing, strategic planning and corporate social reporting. **Major Prerequisites:** C or better in ACCT 304 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 304 and junior standing. **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. Areas of focus include International Financial Reporting Standards, consolidations, transfer pricing, taxation, international auditing, strategic planning and corporate social reporting. Part or all of the course will be held in another country. **Major Prerequisites:** C or better in ACCT 304 and admission to Professional Program. **Non-Major Prerequisites:** C or better in ACCT 304 and junior standing. **Three hours per week.**

450. ADVANCED FRAUD EXAMINATION**3 hours credit**

Analysis and discussion of issues relating to fraud and forensic accounting. Identify the resources for detecting fraud, evaluate the conditions that encourage fraud, and design effective fraud detection and prevention plans. Focus on the perspective of public, internal and private accountants. Discuss the principles and standards for proactive and reactive investigation, as well as detection and control of fraud. Focus on the high-risk fraud environments where assets are more vulnerable to misappropriation and fraud because of either lack of, or because of non-functioning, internal controls. The study of various fraud investigative methods emphasizes the skills needed to identify, investigate, and litigate fraud and forensic accounting allegations. This course may be taken

concurrently with ACCT 451. **Prerequisite:** C or better in ACCT 418. **Three hours per week.** (fall offering only)

451. FRAUD DETECTION AND PREVENTION TECHNOLOGIES

3 hours credit

Provides guidance and knowledge for conducting investigations via data analysis. Involves investigation into the technology tools that are used in fraud examination and financial forensics. Become familiar with innovative analytic approaches used to perform complex fraud analysis. Utilize fraud-related software applications and data analysis programs to detect and investigate possible fraudulent activities. This course may be taken concurrently with ACCT 450. **Prerequisite:** C or better in ACCT 418. **Three hours per week.** (fall offering only)

452. FINANCIAL STATEMENT FRAUD

3 hours credit

Examine how financial statement analysis can be used to uncover fraudulent financial reporting. Financial statement fraud involves intentional misstatements or omissions of financial statement amounts or disclosures to deceive users of the statements. This topic is commonly known as "cooking the books" and introduces management's motives and pressures to achieve desired financial results as opposed to true economic financial results. Understand and detect the creative accounting methods management employs to "cook the books," along with related fraud prevention strategies. This course may be taken concurrently with ACCT 453. **Prerequisites:** C or better in ACCT 450, 451. **Three hours per week.** (spring offering only)

453. WHITE COLLAR CRIME

3 hours credit

Focuses on providing a comprehensive analysis of white-collar crime in American society. Explore all phases of white-collar crime, which includes a review and analysis of the general principles of white-collar prosecution and defense, fact-gathering, and interviewing witnesses and targets. Discuss high-profile cases, trends in criminal activity, consequences of criminal behavior and the impact on victims. Integrate various business disciplines to perform complex investigative cases and analyses, thus demonstrating mastery of the knowledge and skills required to be effective forensic professionals. This course may be taken concurrently with ACCT 452. **Prerequisites:** C or better in ACCT 450, 451. **Three hours per week.** (spring offering only)

460. 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:** C or better in ACCT 304 and junior standing. **Three hours per week.**

490. ACCOUNTING INTERNSHIP

3 hours credit

Internship experience in accounting. Can include participation in the Volunteer Income Tax Assistance (VITA) program. **Prerequisites:** C or better in ACCT 201, 202 (and ACCT 341 for VITA program participation); successful completion of the Accounting Program admission test; C or better in, or concurrent enrollment in, ACCT 304; placement approval and permission of the department chair; admission to Professional Program; successful completion of BUAD 300. **Three hours per week.**

491. ADVANCED ACCOUNTING INTERNSHIP

1-3 hours credit

Research associated with an internship experience in accounting. **Prerequisites:** ACCT 490 or completion of ABLE requirement, placement approval and permission of the department chair, completion of ABLE administrative requirements. **One to 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.**

497. ACCOUNTING CAPSTONE INTERNSHIP

3 hours credit

A capstone experience that prepares graduates for their professional careers. Perform non-attest services for non-profit organizations, including financial statement preparation and observation of internal controls, and perform substantive testing procedures. Satisfies the ABLE requirement of the Accounting Program. **Prerequisites:** C or better in ACCT 305, admission to the Professional Program and senior standing. **Corequisite:** ACCT 407. **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 analysis, 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 developing an 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.**

666. ACCOUNTING CONCEPTS AND APPLICATIONS
3 hours credit

Examines contemporary practices within the accounting field. Emphasizes concepts and applications to hone analytical and decision-making skills. Topics include measurement and performance designs, as well as monitoring and disclosure objectives. **Prerequisites:** Admission to the M.B.A. program, ACCT 201 or equivalent with a C or better. **Six hours per week for half a semester.**

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 taken 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 SIGN LANGUAGE (ASL)

101. ELEMENTARY SIGN LANGUAGE I
4 hours credit

Beginning study of American Sign Language including the culture of deaf people. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102. ELEMENTARY SIGN LANGUAGE II
4 hours credit

Continuation of skill development and vocabulary and sign acquisition of American Sign Language including the culture of deaf people. **Prerequisite:** ASL 101 or permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

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
4 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. Crosslisted with HIST 375. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

ANTHROPOLOGY (ANTH)

100. CULTURAL ANTHROPOLOGY AND LINGUISTICS
4 hours credit

Introduction to the study of human culture and communication across a wide range of traditional and modern societies, with an emphasis on participant-observation ethnographic fieldwork. May not receive credit for both ANTH 212 and ANTH 100. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

102. BIOLOGICAL ANTHROPOLOGY AND ARCHAEOLOGY
4 hours credit

Introduction to the study of human biological and cultural evolution from the earliest hominins to the present, with an emphasis on paleoanthropological and archaeological research. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

200. TOPICS IN ANTHROPOLOGY
4 hours credit

Study of specific topics in varied fields of anthropology. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

201. CULTURAL ANTHROPOLOGY SURVEY
4 hours credit

A comprehensive survey of the indigenous peoples and tradi-

tional cultures of a specific region of the world, focusing on ethnographic and linguistic research. May be taken twice under different subtitles. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

202. ARCHAEOLOGY SURVEY
4 hours credit

A comprehensive survey of the archaeological cultures of a specific region of the world or chronological period. May be taken twice under different subtitles. May not receive credit for both ANTH 250 and ANTH 202. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

215. RELIGION, MAGIC AND WITCHCRAFT
4 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 with enhancement. Meets General Education IIIB or IIIC.**

301. CULTURAL ANTHROPOLOGICAL METHOD AND THEORY
4 hours credit

Survey of the theoretical history of cultural anthropology and a detailed overview of the methods of ethnographic research. **Prerequisites:** Sophomore standing and completion of two anthropology track core courses with grades of C or better. **Three hours per week with enhancement.**

302. ARCHAEOLOGICAL METHOD AND THEORY
4 hours credit

Survey of the theoretical history of archaeology and a detailed overview of the methods of archaeological research. **Prerequisites:** Sophomore standing and completion of two anthropology track core courses with grades of C or better. **Three hours per week with enhancement.**

400. INDIVIDUAL DIRECTED STUDY
4 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.

410. ARCHAEOLOGICAL FIELD METHODS
6 hours credit

Instruction in the hands-on techniques of archaeological field-work, including survey, excavation and the recording of finds. Offered during summer term only. **Thirty-five hours per week.**

459. SEMINAR IN ANTHROPOLOGY
4 hours credit

Advanced study of current research and literature in a selected field of anthropology. 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 with enhancement.**

497. UNDERGRADUATE RESEARCH
4 hours credit

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.

500. INDIVIDUAL DIRECTED STUDY
3 hours credit

Advanced study in an area of anthropology through intensive literature and/or field research. May be repeated once under different subtitles.

510. ARCHAEOLOGICAL FIELD METHODS
6 hours credit

Instruction in the hands-on techniques of archaeological field-work, including survey, excavation and the recording of finds. Offered during summer term only. **Thirty-five hours per week.**

559. SEMINAR IN ANTHROPOLOGY
3 hours credit

Advanced study of current research and literature in a selected field of anthropology. **Three hours per week.**

APPLIED HEALTH PHYSIOLOGY (AHPH)

502. INTRODUCTION TO RESEARCH
3 hours credit

Methods of investigating physiological mechanisms within the human clinical context; development of skills for producing as well as consuming research by proposing a research plan. **Prerequisite:** Admission to program. **Three hours per week.**

512. PERFORMANCE: THEORY AND PRACTICE
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 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
3 hours credit

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
3 hours credit

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.**

515. APPLIED STRENGTH AND CONDITIONING
3 hours credit

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 and American Heart Association Health Care Provider CPR. **Three hours per week.**

532. EXERCISE METABOLISM
3 hours credit

A systematic, in-depth examination of the regulation of metabolic processes during exercise. Emphasis on carbohydrate,

lipid and amino acid pathways in skeletal muscle, adipose tissue and the liver. Also includes an examination of metabolic factors contributing to fatigue and metabolic adaptations to strength and endurance exercise training. **Prerequisite:** Admission to Applied Health Physiology Program. **Three hours per week.**

534. HUMAN PSYCHOPHYSIOLOGY
3 hours credit

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:** Admission to Applied Health Physiology Program. **Three hours per week.**

542. COMPREHENSIVE WEIGHT MANAGEMENT
3 hours credit

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.**

544. ESSENTIALS OF PHARMACOLOGY
3 hours credit

Examination of the physiological mechanisms involved in the clinical treatment of individuals with medications. Emphasis placed on the pharmacological influence on therapeutic exercise program design, monitoring techniques and patient outcomes. **Prerequisites:** Admission to program. **Three hours per week.**

545. CARDIOPULMONARY 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. SPECIAL POPULATIONS INTERVENTIONS
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:** Admission to program. **Three hours per week.**

553. APPLIED 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.**

557. APPLIED CARDIOPULMONARY PHYSIOLOGY
3 hours credit

Using a case-based approach to enhance critical thinking, this course provides an in-depth study of applied cardiovascular/pulmonary physiology to Advanced Cardiovascular Life Support (ACLS). An expected outcome is achieving certification as ACLS providers. **Prerequisite:** American Heart Association Basic Life Support and consent of program director. **Three hours per week.**

559. RESEARCH IN PHYSIOLOGY
3 hours credit

Teams identify a novel research question and develop a research protocol designed to answer that question. This includes conducting a pertinent literature review, determining

resource needs and preparing an explanation/defense appropriate for the SU Human Subjects Committee. Concurrently, discuss original research articles and gain practical experience contributing to an existing line of research. **Prerequisite:** AHPH 502. **Six 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 for students 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.**

692. INTERNSHIP I
3 hours credit

A practical experience that requires the student to synthesize relevant professional knowledge and skills within a client care delivery environment. **Prerequisite:** Permission of program director, completion of 30 AHPH Program graduate hours. As required by the internship site: purchase of professional liability insurance, immunizations satisfaction, medical clearance to participate, criminal background investigation, drug screening and American Heart Association Basic Life Support.

693. INTERNSHIP II
3 hours credit

A practical experience that requires the student to synthesize relevant professional knowledge and skills within a client care delivery environment. **Prerequisite/Corequisite:** AHPH 692. **Prerequisite:** Permission of program director, completion of 33 AHPH Program graduate hours. As required by the internship site: purchase of professional liability insurance, immunizations satisfaction, medical clearance to participate, criminal background investigation, drug screening and American Heart Association Basic Life Support.

ARABIC (ARAB)

101 ELEMENTARY ARABIC I
4 hours credit

Beginning spoken and written Arabic with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102 ELEMENTARY ARABIC II
4 hours credit

Continuation of skill development in spoken and written Arabic with further study of major structures. **Prerequisite:** ARAB 101 or permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

ART (ART)

104. ART APPRECIATION
4 hours credit

Wide-ranging introduction to the visual arts that focuses primarily on the art and architecture of Western Civilization. Topics include art theory, visual perception, subject matter

and content, art-making media and techniques, the creative process and the relation of art to its historical and cultural context. For non-majors only. Does not fulfill any requirements for art majors, art minors or art history minors. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

121. DESIGN PRINCIPLES

4 hours credit

Introduction to and development of knowledge and comprehension of the underlying principles of visual composition, through the creation of designs. Bulk supplies are provided, but students need to furnish some materials. **Major Corequisite:** ART 130; no corequisite/prerequisite for non-majors. **Six hours per week. Meets General Education IIIA or IIIC.**

129. INTRODUCTION TO DIGITAL PHOTOGRAPHY

4 hours credit

Introductory-level course designed to explore fundamentals of composition using digital photography and related support technology. Stresses the application of the elements of design and principles of composition through traditional photographic assignments and is appropriate for non-art majors, art minors and art majors in all tracks except photography. Instruction includes use of a digital camera and basic image manipulation programs. Students must provide their own cameras. **Major Prerequisite:** ART 121. **Six hours per week. Meets General Education IIIA or IIIC.**

130. DRAWING I

4 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. **Major Corequisite:** ART 121; no corequisite/prerequisite for non-majors. **Six hours per week. Meets General Education IIIA or IIIC.**

201. INTRODUCTION TO ART HISTORY

4 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 with enhancement. Meets General Education IIIA or IIIC.**

208. HISTORY OF BAROQUE AND ROCOCO ART

4 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. **Major Prerequisite:** ART 201; no prerequisite for non-majors. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

215. CERAMICS I

4 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. **Major Prerequisites:** ART 121, 130; no prerequisites for non-majors. **Six hours per week. Meets General Education IIIA or IIIC.**

226. GRAPHIC DESIGN I

4 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. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

227. DIGITAL DESIGN AND LAYOUT

4 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. Designed to help fine arts majors prepare and present images of their artwork in a professional manner, and should be taken in the junior or senior year. **Major Prerequisites:** ART 121, 130, 201 and either 129 or 229; no prerequisites for non-majors. **Six hours per week.**

229. PHOTOGRAPHY I

4 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. **Major Prerequisites:** ART 121, 130, 201; no prerequisites for non-majors. **Six hours per week.**

230. DRAWING II

4 hours credit

Introduction to monochromatic and polychromatic drawing techniques using wet and dry media. Students furnish their own materials. B.F.A. core. **Major Prerequisites:** ART 121, 130, 201. **Non-Major Prerequisite:** ART 130. **Six hours per week.**

246. PAINTING I

4 hours credit

Introduction to techniques in oil, acrylics and watercolor. Students furnish their own materials. B.A. and B.F.A. core. **Major Prerequisites:** ART 121, 130, 201. **Non-Major Prerequisite:** ART 130. **Six hours per week.**

261. SCULPTURE I

4 hours credit

Exploration of three-dimensional form and content using a variety of materials and processes in a studio setting, which includes a wood shop, welding studio, bronze and iron foundry, and mixed media room. Students furnish some of their own materials. There are no prerequisites for non-majors. **Major Prerequisites:** ART 121, 130, 201. **Meets General Education IIIA or IIIC. Six hours per week.**

271. GLASS I

4 hours credit

Learn the basic skills needed to work with hot glass, with an emphasis on teamwork and safety. Through demonstrations and hands-on practice, learn foundational skills in glass blowing, hot sculpting and finishing techniques. Learn basic principles of composition and modes of using glass as a material for artistic expression. Studio work outside of class and group critique of students' work also are required. There are no prerequisites for non-majors. **Major Prerequisites:** ART 121, 130. **Meets General Education IIIA or IIIC. Six hours per week.**

280. NEW MEDIA I

4 hours credit

An integrated and cohesive approach to new media used in contemporary production environments. Includes a field trip to a contemporary art exhibition which focuses on time-based new media art. **Major Prerequisite:** ART 121; no prerequisite for non-majors. **Six hours per week.**

299. SOPHOMORE SEMINAR

2 hours credit

A mid-career forum for student debate and discussion concerning plurality of style, content and formal issues important to contemporary art. Professional and studio practices of artists and designers are introduced, allowing students to make the most of upper-level courses later in their academic careers. **Prerequisites:** Sophomore standing or above, art majors only. **Three hours per week.**

300. HISTORY OF MODERN ART TO 1945**4 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.

Major Prerequisite: ART 201; no prerequisite for non-majors. **Three hours per week with enhancement.**

301. NORTHERN RENAISSANCE ART**4 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. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** ART 104 or ART 201 or permission of instructor. **Three hours per week with enhancement.**

302. HISTORY OF AMERICAN ART:**THE COLONIAL PERIOD TO 1900****4 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, the relationship of American to European art, and the development of a national identity in American art. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** Permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

303. HISTORY OF AMERICAN ART: THE 20TH CENTURY**4 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. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** Permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

305. ART SINCE 1945**4 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 legitimation through arts organizations and the marketplace.

Major Prerequisite: ART 201. **Non-Major Prerequisite:** Permission of the instructor. **Three hours per week with enhancement.**

306. HISTORY OF GREEK AND ROMAN ART**4 hours credit**

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. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** ART 104 or ART 201 or permission of instructor. **Three hours per week with enhancement.**

310. HISTORY OF ITALIAN RENAISSANCE ART**4 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. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** Permission of instructor. **Three hours per week with enhancement.**

311. HISTORY OF PRE-COLUMBIAN ART**4 hours credit**

Survey of the art and architecture of the indigenous civilizations of Mexico, Central America and the Andean region of South America from approximately 2000 BCE until European Conquest. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** ENGL 103 or permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

312. WEB DESIGN**4 hours credit**

Introduction to website 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. **Major Prerequisites:** ART 201 and 226 or 227. **Non-Major Prerequisite:** COSC 116 or permission of the instructor. **Six hours per week.**

313. INTERACTIVE ANIMATION**4 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. **Major Prerequisites:** ART 201 and 226 or 227. **Non-Major Prerequisite:** COSC 116 or permission of instructor. **Six hours per week.**

315. CERAMICS II**4 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. **Six hours per week.**

318. BOOK ARTS**4 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. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

326. GRAPHIC DESIGN II**4 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. **Six hours per week.**

328. ILLUSTRATION**4 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. **Prerequisite:** ART 226 or 227. **Six hours per week.**

329. ALTERNATIVE PROCESSES IN FILM PHOTOGRAPHY**4 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. **Prerequisite:** ART 229. **Six hours per week.**

330. DRAWING III

4 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. **Six hours per week.**

335. WOMEN IN ART

4 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. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** Permission of instructor. **Three hours per week with enhancement.**

336. HISTORY OF GRAPHIC DESIGN

4 hours credit

Comprehensive survey of graphic design history from prehistory to present. Topics include the influence of social and political world events, changing technology, important innovators and media evolution on print communications. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** Permission of instructor. **Three hours per week with enhancement.**

340. PAINTING II

4 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. **Six hours per week.**

345. ADVANCED COMPOSITION

4 hours credit

A process-oriented drawing course emphasizing increased levels of abstraction using a variety of media with special focus on formal issues. **Prerequisites:** ART 121, 130, 246. **Six hours per week.**

350. PRINTMAKING: LITHOGRAPHY

4 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. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

351. PRINTMAKING: ETCHING

4 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. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

352. PRINTMAKING: SILKSCREEN

4 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. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

353. PRINTMAKING: RELIEF

4 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. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

355. DIGITAL IMAGING

4 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 esthetic content as well as technical proficiency. **Prerequisites:** ART 121, 130, 201. **Six hours per week.**

359. ADVANCED DIGITAL PHOTOGRAPHY

4 hours credit

Upper-level course that covers advanced projects in photography using digital technology. Students should have a basic understanding of photographic composition and of basic computer skills required for digital imaging. A digital camera is required. May be taken for a maximum of eight credits. **Prerequisites:** ART 129 or 229 or permission of the instructor. **Six hours per week.**

361. SCULPTURE II

4 hours credit

Study of the sculpture techniques of welding, casting and hand building. Students furnish their own materials. **Prerequisite:** ART 261. **Six hours per week.**

362. FIGURE SCULPTURE

4 hours credit

Introduction to the human figure in sculpture, including traditional and contemporary methods and issues. Observational modeling from a live model and interpretations in various permanent materials and approaches. Students furnish some of their own materials. **Prerequisite:** ART 261 or permission of instructor. **Six hours per week.**

365. WOODWORKING AND SCULPTURE

4 hours credit

Introduction to various woods and woodworking techniques, including both sculptural and functional approaches. Students furnish some of their own materials. May be taken for a maximum of eight credits. **Major Prerequisite:** ART 261. **Six hours per week.**

366. DIRECT METAL SCULPTURE

4 hours credit

Introduction to direct metal working processes, including various welding, cutting and forming methods. Indirect processes, including casting, may also be discussed. **Major Prerequisite:** ART 261. **Six hours per week.**

371. GLASS II

4 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. **Six hours per week.**

380. NEW MEDIA II

4 hours credit

An intermediate introduction to videography, video editing, sound recording, surround sound mastering, storyboarding, scripting and motion graphics. Includes a field trip to a contemporary art exhibition which focuses on new media art. **Prerequisites:** ART 280. **Six 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. **Prerequisites:** ART 121, 130, 201 and approval of department chair.

391. SPECIAL TOPICS IN ART HISTORY**4 hours credit**

Intensive study, including research, of a particular topic in art history. May be taken twice under different subtitles. **Major Prerequisite:** ART 201. **Non-Major Prerequisite:** ART 104 or ART 201 or permission of instructor. **Three hours per week with enhancement.**

395. SPECIAL TOPICS IN ART**4 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. **Major Prerequisites:** ART 121, 130, 201. **Non-Major Prerequisite:** Permission of instructor. **Six hours per week.**

397. PROFESSIONAL PRACTICES**2 hours credit**

Prepares art majors and minors for professional careers in the visual arts and design. Provides a foundation of practical information about career development, self-promotion and contractual issues, among other things, to assist in building a successful career. **Prerequisite:** Art major or minor. **Two hours per week.**

399. INTERNATIONAL FIELD STUDY**4 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 IIIA or IIIC. Three hours per week with enhancement.**

415. CERAMICS III**4 hours credit**

Presentation of advanced techniques in wheel throwing, clay assembly and kiln firing. Students furnish their own materials. **Prerequisite:** ART 315. **Six hours per week.**

416. ADVANCED CERAMICS**4 hours credit**

Surveys 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. May be taken two times for a maximum of eight credits. **Prerequisite:** ART 415. **Six hours per week.**

420. COLOR PROCESSES IN FILM PHOTOGRAPHY**4 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. **Prerequisite:** ART 229. **Six hours per week.**

426. GRAPHIC DESIGN III**4 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. **B.A. Prerequisite:** ART 326. **B.F.A. Prerequisites:** ART 326, completion of 24 hours of the B.F.A. core. **Six hours per week.**

429. STUDIO TECHNIQUES AND APPLIED FILM PHOTOGRAPHY**4 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. May be taken two times

for a maximum of eight credits. **Prerequisite:** ART 229. **Six hours per week.**

430. DRAWING IV**4 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. **B.A. Prerequisites:** ART 330. **B.F.A. Prerequisites:** ART 330, completion of 24 hours of the B.F.A. core. **Six hours per week.**

431. ADVANCED DRAWING**4 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 once for credit. **Prerequisite:** ART 430. **Six hours per week.**

440. PAINTING III**4 hours credit**

Study of watercolor, oil, acrylic or media substitute. Focus on painting and critiques. **Prerequisite:** ART 340. **Six hours per week.**

441. PAINTING IV**4 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. **Six hours per week.**

442. ADVANCED PAINTING**4 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 be repeated once for credit. **Prerequisite:** ART 441. **Six hours per week.**

461. ADVANCED SCULPTURE**4 hours credit**

Advanced experience of techniques and media. Students furnish their own materials. This course may be taken three times for a maximum of 12 credits. **Prerequisite:** ART 361. **Six hours per week.**

471. ADVANCED GLASS**4 hours credit**

Advanced studio practice in glass is a class for serious students. Continued training with tools and development of expertise in glass and glass equipment. Students work toward developing their own research projects and are expected to take on more responsibility for the running of the glass lab. Students must furnish safety apparel and any materials not covered by the lab fee. May be taken three times for a maximum of 12 credits. **Prerequisites:** ART 371, permission of instructor. **Six hours per week.**

480. ADVANCED NEW MEDIA**4 hours credit**

Using current software, achieve advanced proficiency in videography, video editing, sound mixing, surround-sound mastering, storyboarding, scripting and motion graphics. An analytical component focuses on the use(s) of time-based media by contemporary artists. Students must attend visiting artist lectures and exhibitions designed by the Electronic Gallery. May be taken three times for a maximum of 12 credits. **Prerequisite:** ART 380. **Six hours per week.**

490. INDEPENDENT STUDY**1-3 hours credit**

Directed study in one or a combination of studio disciplines. Students furnish their own materials. May be repeated once under different subtitle, for a total of no more than six credits. **Prerequisite:** Permission of instructor.

491. INTERNSHIP**1-4 hours credit**

Supervised experiences in art-related work to provide students with an opportunity to use acquired knowledge and skills in a professional way. **Prerequisite:** Seniors status with 32 or more hours in art, including eight hours in their program track. **Six hours per week.**

495. GRAPHIC DESIGN AGENCY**4 hours credit**

Students work collaboratively in a setting structured like a graphic design firm to complete job assignments for actual clients, including the University, community and nonprofit organizations. Students also work on self promotion. **Prerequisite:** ART 426. **Six hours per week.**

497. GALLERY INTERNSHIP**2 hours credit**

Supervised experience with an approved art gallery or museum, including hands-on participation in gallery/museum duties and an introduction to curatorial practices, gallery management and institutions of art. May be taken twice for a maximum of four credits. **Prerequisites:** ART 121, 201. **Three hours per week.**

499. SENIOR EXHIBITION**2 hours credit**

Summary of the University art experience through active planning and execution of professionally oriented activities such as a group exhibit, professional portfolios and resumes. **Prerequisites:** Senior standing and permission of instructor. **Three hours per week.**

500. SEMINAR: ISSUES IN ART**3 hours credit**

Discussions and research concerning timely topics in art, including direct student participation and faculty lectures. Topics may vary from semester to semester. May be repeated once for degree credit under different course subtitle. **Prerequisite:** Permission of instructor. **Four hours per week.**

590. INDEPENDENT STUDY**1-3 hours credit**

Directed study in one or a combination of studio disciplines. Students furnish their own materials. May be repeated once under different subtitle, for a total of no more than six credits. **Prerequisite:** Permission of department chair.

ATHLETIC TRAINING (ATTR)

210. FOUNDATIONS OF ATHLETIC TRAINING**4 hours credit**

Review of the history and governance of the athletic training profession. Addresses the body of knowledge and primary responsibilities of the athletic trainer. Basic skills in risk management and injury prevention are emphasized. An overview of the clinical requirements for the athletic training major is provided. May not receive credit for both ATTR 185 and ATTR 210. **Three hours lecture/laboratory, three hours practicum per week.**

213. PATHOLOGY OF INJURIES AND ILLNESSES**4 hours credit**

Designed to address the pathology and the medical manage-

ment of specific acute illnesses and traumatic injuries that may be encountered by the athletic trainer. Attention is given to the clinical signs and symptoms of orthopedic-related injuries and clinical manifestations of acute trauma of the body's systems. Pathology of injuries and illnesses is covered in an introductory manner to allow students to build a foundation of knowledge for further inquiry. May not receive credit for both PHEC 313 and ATTR 213. **Prerequisites:** ATTR 210, BIOL 215. **Three hours lecture, two hours laboratory per week.**

333. ANATOMY OF HUMAN MOVEMENT**4 hours credit**

Designed to allow exploration of concepts related to osteology, myology, and arthrology of the spine and extremities. The assessment of osteokinematics and arthrokinematics is discussed and demonstrated in a laboratory setting. Components of posture and gait are explored and evaluated. Utilize Newton's laws for the understanding of functional anatomy. May not receive credit for both ATTR 245 and ATTR 333. **Prerequisite:** C or better in BIOL 215. **Three hours lecture, two hours laboratory per week.**

370. HEALTHCARE ADMINISTRATION FOR ATHLETIC TRAINING**4 hours credit**

Designed to examine the various issues, policies and procedures involved with the administration of a health care facility. An intensive study is made of facility organization and design, legal liability, personnel management, equipment maintenance and budgeting, record keeping, health care services, counseling, and public relations. May not receive credit for both ATTR 407 and ATTR 370. **Major prerequisite:** Admission to Athletic Training Program. **Non-major prerequisite:** Permission from the Athletic Training Program director. **Three hours per week with enhancement.**

401. THERAPEUTIC MODALITIES**4 hours credit**

Designed to introduce the theory and application of therapeutic modalities and physical agents commonly utilized in sports medicine. Focus of the material presented includes the selection, indications, contraindications and appropriate parameter selection. May not receive credit for both ATTR 280 and ATTR 401. **Prerequisites:** BIOL 215 and either EXSC 333 or ATTR 333, both with C or better. **Three hours lecture, two hours laboratory per week.**

402. ORTHOPEDIC ASSESSMENT**4 hour credit**

Designed to present the techniques used in evaluating orthopedic injuries. An in-depth analysis of injury mechanics, and the theory and application of orthopedic and neurological evaluations are included. Through lecture and laboratory opportunities, students develop a systematic approach to the evaluation process and develop accurate impressions of orthopedic injuries. May not receive credit for both ATTR 381 and ATTR 402. **Prerequisites:** BIOL 215 and either EXSC 333 or ATTR 333, both with C or better. **Three hours lecture, two hours laboratory per week.**

403. FOUNDATIONS OF THERAPEUTIC EXERCISE**4 hours credit**

Designed to provide the student with theories and concepts vital in conditioning, reconditioning and injury rehabilitation. Gain an understanding of trauma and the healing process and how these affect decisions made in the initiation and progression of a rehabilitation program. May not receive credit for both ATTR 382 and ATTR 403. **Prerequisites:** BIOL 215 and either EXSC 333 or ATTR 333, both with C or better. **Three hours lecture, two hours laboratory per week.**

500. ADVANCED STRATEGIES FOR PHYSICAL WELLES

3 hours credit

Focuses on applied concepts related to health and fitness in physically active individuals. Emphasis is placed on content related to disease and injury prevention, including ergonomics, exercise and nutrition. Conduct baseline fitness and wellness screenings in order to provide recommendations for a healthy lifestyle. **Prerequisite:** Admission to Athletic Training Program. **Twelve and a half hours per week.**

501. INJURY/ILLNESS PREVENTION

3 hours credit

Introduces foundational knowledge of injury/illness prevention and emergency management. Emphasis is placed on preventative measures to minimize the risk of injury/illness. Discusses primary responsibilities of the athletic trainer as a health care provider. The history and governance of the athletic training profession is presented. **Prerequisite:** Admission to Athletic Training Program. **Four hours per week.**

505. RISK MANAGEMENT STRATEGIES

3 hours credit

Integrates the topics of nutrition, strength and conditioning, and injury prevention in a problem-based learning format. Students are assessed on these topics during clinical rotation assignments through clinical proficiency assessment. **Prerequisite:** ATTR 501. **Twelve hours per week.**

510. ACUTE CARE OF INJURY/ILLNESS

3 hours credit

Addresses the pathology and medical management of specific acute illnesses and traumatic injuries that may be encountered by the athletic trainer. Attention is given to the clinical signs and symptoms of orthopedic-related injuries and clinical manifestations of acute trauma of the body's systems. Pathology of injuries and illness is covered to build a foundation knowledge for further inquiry. **Prerequisite:** ATTR 501. **Four hours per week.**

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.**

520. ORTHOPEDIC ASSESSMENT AND DIAGNOSIS

3 hours credit

Introduces clinical assessment techniques for orthopedic injuries. Learn to take a complete patient history, including mechanism of injury and chief complaint, in order to develop a differential diagnosis. Acquire examination techniques, including observation, palpation, range of motion assessment, and manual muscle, neurovascular and laxity testing to objectively rule out possible injuries and arrive at an appropriate working diagnosis. **Prerequisite:** ATTR 501. **Four hours per week.**

555. PATHOLOGY AND ASSESSMENT

3 hours credit

Integrates the topics of on-field and clinical assessment in acute care in a problem-based learning format. Students are assessed on these topics during clinical rotation assignments through clinical proficiency assessment. **Prerequisites:** ATTR 510, 520. **Twelve hours per week.**

560. THERAPEUTIC MODALITIES

3 hours credit

Introduces the theory and application of therapeutic modalities and physical agents commonly utilized in the athletic training profession. Focus of the materials presented includes the selection, indications, contraindications and appropriate parameter selection. **Prerequisite:** ATTR 505. **Four hours per week.**

570. THERAPEUTIC EXERCISE

3 hours credit

Provides the programs, theories and concepts vital in conditioning, reconditioning and injury rehabilitation. 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 505. **Four hours per week.**

600. COMPREHENSIVE APPROACH TO HEALTH

3 hours credit

General medical conditions and diseases in physically active individuals are introduced. These conditions are explored through an interprofessional lens, allowing the opportunity to value a comprehensive approach to patient care. Additionally, demonstrate professional behaviors in a variety of settings while interacting with diverse patient populations. Concepts and practices associated with pharmacology, long-term medication plans, and the governing regulations relevant to the dispensing and administering of medications are addressed. **Prerequisite:** ATTR 510. **Seven and a half hours lecture and four hours practicum per week.**

605. THERAPEUTIC INTERVENTIONS

3 hours credit

Integrates the topics of therapeutic modalities, rehabilitation and reconditioning in a case-based learning format. Students are assessed on these topics during clinical rotation assignments through clinical proficiency assessment. **Prerequisite:** ATTR 560, 570. **Twelve hours per week.**

610. RESEARCH METHODS FOR CLINICAL PRACTICE

3 hours credit

Provides information regarding basic concepts of and methods for conducting quality research. Apply basic statistical procedures using statistical analysis software. Introduces the concept of evidence-based practice to develop critical thinking and clinical decision making skills in future healthcare providers. By utilizing a systematic approach to ask and answer clinically relevant questions, develop strategies for optimizing patient care. **Prerequisite:** ATTR 555. **Three hours per week.**

620. HEALTH CARE ADMINISTRATION

3 hours credit

Examines the various issues, policies and procedures involved with the administration of a health care facility. An intensive study is made of facility organization and design, legal liability, personnel management, equipment maintenance, and budgeting, record keeping, health care services, counseling and public relations. **Prerequisite:** ATTR 555. **Three hours per week.**

655. ADMINISTRATION AND PROFESSIONAL DEVELOPMENT

3 hours credit

Integrates the topics of psychosocial referrals, pharmacological interventions, organization and administration in a case-based learning format. Students are assessed on these topics during clinical rotation assignments through clinical proficiency assessment. **Prerequisites:** ATTR 610, 620. **Twelve hours per week.**

660. APPLIED RESEARCH

3 hours credit

Complete a research project either through an original

research design, including a data collection process, or in the form of a meta-analysis utilized to answer a clinically relevant question. Complete the task under the supervision of a faculty member. The completed process will result in a scholarly presentation or publication submission. **Prerequisite:** ATRR 610. **Nine hours per week.**

BIOLOGY (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. This Web-enhanced course requires significant online work. Does not satisfy biology major requirements. **One hour lecture, two hours online and two hours laboratory per week. Meets General Education IVA or IVB.**

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. **Three hours per week. Meets General Education IVB.**

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.**

150. ENVIRONMENTAL SCIENCE: CONCEPTS AND METHODS

4 hours credit

Explores global and regional environmental processes and systems, as well as the impact of humans on these systems. Addresses current environmental issues such as climate change, habitat loss and water pollution, emphasizing the role of science in identifying problems and finding solutions. May not receive credit for both BIOL 150 and GEOG 150. Does not satisfy requirements within the major. **Three hours lecture, two hours laboratory per week. Meets General Education IVA or IVB.**

205. FUNDAMENTALS OF HUMAN ANATOMY AND PHYSIOLOGY

4 hours credit

Intended for health education and physical education majors, emphasizes the musculoskeletal, nervous, cardiovascular and respiratory systems. Does not satisfy requirements within the biology major. **Three hours lecture, three hours laboratory per week. Meets General Education IVA or IVB.**

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 IVA or IVB.**

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 IVB (Prior to 2008: 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 IVB (Prior to 2008: 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 IVA or IVB.**

214. MEDICAL PHYSIOLOGY

4 hours credit

Presentation of human physiology at the cell and organ levels to include the nervous, skeletomuscular, 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, muscle, nervous and endocrine systems. **Recommended Prerequisite:** BIOL 101 or 213. **Three hours lecture, three hours laboratory per week. Meets General Education IVA or IVB.**

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. **Prerequisite:** C or better in BIOL 215. **Three hours lecture, three hours laboratory per week. Meets General Education IVB.**

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. **Three hours per week. Meets General Education IVB.**

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 IVB.**

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 IVA or IVB.**

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.**

290. 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. **Prerequisite:** Permission of instructor or four credits of biology. Additional prerequisites may be required depending on the specific topic. **One to six hours per week.**

299. INTERNATIONAL STUDIES IN BIOLOGY**3 hours credit**

Learn about and be introduced to a biological discipline in a foreign country. No previous biology coursework required. Includes a minimum of 10 hours of lecture in the field and a minimum of 40 hours of hands-on lab work and/or field exercises abroad in addition to 15 hours of pre-/post-trip lecture. Repeatable for up to six credits under different subtitles. **Prerequisite:** Consent of instructor. **Meets General Education IVA or IVB.**

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.**

302. BIOINFORMATICS I**4 hours credit**

Computer-based course introduces biological databases. Emphasis placed on quantitative approaches to modeling and analyzing biological data. **Prerequisite:** BIOL 210. **Prerequisite/Corequisite:** MATH 198 or MATH 201. **Three hours lecture, three hours laboratory 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. **Prerequisites:** BIOL 210 and BIOL 211 or 212 or 213. **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.**

320. BIOLOGY OF THE VERTEBRATES**4 hours credit**

Study of vertebrate animal life, including evolution of the major vertebrate groups, zoogeography, behavior, reproduction, thermoregulation, migration, population dynamics, ecology and conservation. Field trips emphasize wildlife biology, and identification and natural history of local species. **Prerequisite:** BIOL 213. **Three 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 IVB.**

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 IVB.**

326. ASTROBIOLOGY**3 hours credit**

The study of living beings, both on Earth and as they may occur elsewhere in the universe. Use a highly interdisciplinary approach to explore the properties of life, how life may have arisen, the evolution of Earth and its biosphere, and the possible origin, evolution and distribution of life in the universe. The past, present and future astrobiology-related activities of space agencies around the world also are surveyed. Two daylong field trips are required. **Prerequisite:** BIOL 211 or 212 or 213. **Three hours 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.**

375. INTRODUCTION TO EVOLUTION**3 hours credit**

As the unifying principle of biology, evolution integrates levels of biological organization, with a focus on biological changes over time and the evidence of the shared evolutionary history of all living things. Topics include speciation; extinction; population processes of selection and adaptation, genomics, and the molecular basis of evolution; sexual selection; life history evolution; and the application of evolution to medicine. **Prerequisites:** BIOL 210 and one of the following: BIOL 211, 212 or 213. **Three hours per week.**

398. INTERNATIONAL TOPICS IN ECOLOGY**4 hours credit**

Study of the interactions between organisms and their environment with a focus on a particular international ecosystem or other ecological specialization (for example, rainforest ecology or wildlife ecology) at an affiliated institution (for example, School for Field Studies). **Prerequisite:** Admission to relevant program. **Four hours lecture per week.**

399. INTERNATIONAL FIELD STUDIES**3 hours credit**

Experience a specific aspect of a biological discipline in a foreign country. Pre-tour lectures, post-tour discussion and other activities required. May be taken twice under different subtitles. May not receive credit for both BIOL 399 and BIOL 570 with the same subtitle. **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**4 hours credit**

Study of birds. Topics include form and function, systematics, speciation, behavior and communication, reproduction, migration, ecological topics including demography, population dynamics, community structure and conservation. Field trips emphasize identification and natural history of local species. **Prerequisite:** BIOL 213. **Three 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.**

408. NEUROBIOLOGY**4 hours credit**

Explores the physiological and anatomical underpinnings of the vertebrate nervous system. **Prerequisite:** BIOL 215 or BIOL 350 or CHEM 417 or PSYC 301. **Three hours lecture, three hours laboratory per week.**

410. ESTUARINE ECOLOGY**4 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 lecture, variable hours lab per week, with required weekend off-campus field experiences.**

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.**

413. ENTOMOLOGY**4 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. **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. May receive credit within the major for BIOL 415 or 417, but not both. **Prerequisite:** Permission of instructor. **Schedule to be arranged individually.**

417. INTERNATIONAL RESEARCH IN BIOLOGY**4 hours credit**

Independent student research under the supervision of a faculty member at an affiliated institution (for example, School for Field Studies). May receive credit within the major for BIOL 415 or 417, but not both. **Prerequisite:** Admission to relevant program. **One hour lecture, nine hours laboratory per week.**

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 top-

ics. 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.

421. MAMMALOLOGY

4 hours credit

Study of living and extinct mammals, emphasizing their origin, evolution, systematics, behavior, ecology and morphological adaptations. Labs focus on the structure and identification of modern mammals, with periodic field trips exploring the natural history of local species. **Prerequisite:** BIOL 213. **Three hours lecture, three hours laboratory per week.**

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.**

423. BIOLOGY OF REPTILES AND AMPHIBIANS

4 hours credit

Focuses on many aspects of the study of reptiles and amphibians, including evolution, taxonomy, physiology, behavior, mating systems, ecology and conservation. Labs and field trips emphasize identification, field observation and natural history of local species. **Prerequisite:** BIOL 213. **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. **Prerequisites:** 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.**

432. IMMUNOLOGY

3 hours credit

Study of the cellular and soluble aspects of immunology, focusing on the human immune response to pathogen and diseases of immune origin. May not receive credit for both BIOL 333 and BIOL 432. **Prerequisite:** BIOL 350. **Three hours 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. BIOL 350 is recommended but not required. **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

Lecture/laboratory-based exploration of biochemical techniques commonly used in industrial and academic laborato-

ries. **Prerequisites:** BIOL 350 and 370, and CHEM 221; or pre/corequisite CHEM 418. **Six hours per week.**

441. BIOINFORMATICS II

3 hours credit

Exploration of viral, prokaryotic and eukaryotic genomes. Emphasis on computational techniques for assessing the genome and manipulating genomic data. **Prerequisite:** C or better in BIOL 302. **Prerequisite/Corequisite:** BIOL 360 or 370. **Four hours lecture/laboratory 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 time for credit, but only with permission of the internship coordinator. Does not satisfy requirements within the major. **Prerequisites:** Junior standing, biology major and approval of Internship Coordinator. **Forty-five student contact hours per credit hour. (P/F)**

460. 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. **Prerequisite:** BIOL 350. **Three hours per week. Meets General Education IVB.**

465. ADVANCED CELL BIOLOGY

3 hours credit

Advanced course exploring the biology, physiology and biochemistry of plant and animal cells. Topics include detailed examinations of organelle function, cell movement, protein turnover, cell adhesion, apoptosis, cell cycle regulation, and the cellular and molecular basis of cancer. Lectures are drawn principally from the latest primary and secondary literature. **Prerequisite:** BIOL 350. CHEM 417 is recommended but not required. **Three hours per week.**

470. 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.**

490. 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.

495. VASCULAR BIOLOGY

4 hours credit

Familiarizes students with a broad spectrum of vascular biology topics. Discuss recent publications employing cutting-edge techniques used to study the vascular system. Gain hands-on exposure to "classical" approaches used in vascular biology research labs. Lecture and lab highlight the application of vascular biology research to present-day clinical approaches used in the treatment of human diseases. **Prerequisite:** BIOL 350. **Three hours lecture, three hours laboratory per week.**

499. HONORS**3 hours credit**

Independent study in an area of biology leading to an honors thesis. **Prerequisite:** Approval of department chair.

500. 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:** Graduate standing and permission of the instructor. **Three hours lecture, three hours laboratory per week.**

501. MODERN CONCEPTS IN BIOLOGY**3 hours credit**

Study of the most recent developments in biology, with special emphasis on genetics, animal behavior and sociobiology. May be taken twice, under different course subtitles. **Prerequisite:** Degree in biology or permission of instructor. **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**

Intensive study of modern genetics for the advanced student. Findings in molecular, cellular and developmental genetics related to classical genetic theory and current problems. **Prerequisite:** Degree in biology or nursing; or permission of instructor. **Three hours per week.**

505. ORNITHOLOGY**4 hours credit**

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

507. 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. **Prerequisites:** Graduate standing and permission of the instructor. **Three hours per week.**

510. ESTUARINE ECOLOGY**4 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:** Graduate standing and permission of the instructor. **Three hours lecture, variable hours lab per week, with required weekend off-campus field experiences.**

512. ENTOMOLOGY**4 hours credit**

Study of the natural history, identification and the life cycles of insects. Special reference to those species of medical and economic importance to people. **Prerequisites:** Graduate standing and permission of the instructor. **Three hours lecture, three hours laboratory per week.**

515. RESEARCH IN BIOLOGY**1-6 hours credit**

Independent student research under the supervision of a faculty member. Students may register for BIOL 515 more than once. **Prerequisites:** Graduate standing and permission of instructor. **Schedule to be arranged individually.**

518, 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.**

521. MAMMALOLOGY**4 hours credit**

Study of living and extinct mammals, emphasizing their origin, evolution, systematics, behavior, ecology and morphological adaptations. Labs focus on the structure and identification of modern mammals with periodical field trips exploring the natural history of local species. **Prerequisites:** Graduate standing and permission of instructor. **Three hours lecture, three hours laboratory per week.**

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 and permission of the instructor. **Three hours lecture, three hours laboratory per week.**

523. BIOLOGY OF REPTILES AND AMPHIBIANS**4 hours credit**

Focuses on many aspects of the study of reptiles and amphibians, including evolution, taxonomy, physiology, behavior, mating systems, ecology and conservation. Labs and field trips emphasize identification, field observation and natural history of local species. **Prerequisite:** BIOL 213, graduate standing and permission of instructor. **Three hours lecture, three hours laboratory per week.**

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:** Graduate standing and permission of the instructor. **Three hours per week.**

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.**

532. IMMUNOLOGY**3 hours credit**

Study of the cellular and soluble aspects of immunology, focusing on the human immune response to pathogen and diseases of immune origin. **Prerequisite:** Graduate standing and permission of instructor. **Three hours 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 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.**

541. BIOINFORMATICS II

3 hours credit

Exploration of viral, prokaryotic and eukaryotic genomes. Emphasis on computational techniques for assessing the genome and manipulating genomic data. **Prerequisite:** Graduate standing and permission of instructor. **Four hours lecture/laboratory 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.**

550. INTERNSHIP IN BIOLOGY

1-3 hours credit

Experiences in biology-related work provide an opportunity to use acquired biological knowledge in a professional setting and to investigate potential career options. May also provide further research skills for career advancement. **Prerequisites:** Approval of the graduate internship coordinator and on-site supervisor. **Forty-five contact hours (on-site work) per credit hour.**

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. Students may not receive credit for both BIOL 552 and NURS 552. **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.**

565. ADVANCED CELL BIOLOGY

3 hours credit

Advanced course exploring the biology, physiology and bio-

chemistry of plant and animal cells. Topics include detailed examinations of organelle function, cell movement, protein turnover, cell adhesion, apoptosis, cell cycle regulation, and the cellular and molecular basis of cancer. Lectures are drawn principally from the latest primary and secondary literature. **Prerequisite:** Graduate standing or permission of instructor. **Three hours per week.**

570. INTERNATIONAL FIELD STUDIES

3 hours credit

Experience a specific aspect of a biological discipline in a foreign country. May include pre-tour lectures, post-tour discussion and other activities. May be taken twice under different subtitles. May not receive credit for both BIOL 399 and BIOL 570 with the same subtitle, nor for BIOL 570 twice with the same subtitle. **Prerequisite:** Permission of instructor. **Forty hours per week.**

575. MODERN MOLECULAR BIOLOGY

3 hours credit

Intensive study of the mechanisms of molecular biology within cells, the methods used to analyze these interactions, and their applications in basic research and biomedical treatments. **Prerequisites:** C or better in BIOL 350 and CHEM 221 or 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.

601. THESIS PREPARATION

3 hours credit

Prerequisites: Graduate standing and permission of instructor.

BUSINESS ADMINISTRATION (BUAD)

101. INTRODUCTION TO THE WORLD OF BUSINESS

3 hours credit

Designed as an interactive, team-taught learning experience that illustrates how the various fields of business coexist in the world. Provides students an introduction to the Perdue School, as well as the necessary tools to develop meaningful and measurable learning objectives to be used throughout their academic career. Topics include personal growth and development essential to business as well as the various sub-fields of business, such as: accounting, finance, information science, management, marketing and operations. Credit may not be received for both BUAD 101 and 103. **Prerequisite:** Freshman (students with fewer than 25 hours of credit) who have declared accounting, finance, information systems, management, marketing and business administration as their major. **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.**

300. PERSONAL AND PROFESSIONAL DEVELOPMENT FOR BUSINESS

1 hour credit

Introduces the skills, abilities and knowledge related to functioning in a professional business environment. Focus on

developing those skills considered important by employers as well as familiarizing students with the ABLE graduation requirement. Sessions vary in duration, depending on the activities involved, which are subject to change. Writing assignments and mandatory attendance at events. **Prerequisites:** Business major and admitted to the Professional Program. **Corequisite:** MGMT 320 (if MGMT 320 is taken in summer or winter, student participates in BUAD 300 the following semester). **Hours per week vary.** (P/F)

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). **Major Prerequisites:** Varies by topic and admission to Professional Program. **Non-Major Prerequisites:** Varies by topic and junior standing. **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. **Major Prerequisites:** MGMT 320 or MKTG 330, and admission to Professional Program. **Non-Major Prerequisites:** MGMT 320 or MKTG 330, and junior standing. **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. **Major Prerequisites:** ECON 211, 212 and admission to Professional Program. **Non-Major Prerequisites:** ECON 211, 212 and junior standing. **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. May be taken twice under different subtitles. Admission to a relevant Perdue School study abroad program is required in preparation for this course. **Prerequisites:** Junior standing, permission of instructor and admission to Professional Program. **Three hours per week.**

396. BUSINESS STUDIES ABROAD

3 hours credit

Examines issues in business administration in an international setting. Specific topics selected from the fields of accounting, economics, finance, information systems, management or marketing, depending on the instructor's area of expertise. Part or all of the course will be held outside the United States. Admission to a relevant Perdue School study abroad program is required in preparation for this course. **Prerequisite:** Admission to the relevant Perdue School study abroad program. **Three hours per week.**

410. HEALTH CARE MANAGEMENT AND MARKETING

3 hours credit

Provides a solid overview of the U.S. health care system from economic, financial, management and marketing perspectives. Gain a basic understanding of the business model of health care and its effect on the economy and effective strategic planning of health care services. **Prerequisite:** MGMT 320, MKTG 330. **Three hours per week.**

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 status; management, marketing or international business major; placement approval and permission of the department chair; completion of ABLE administrative requirements; admission to Professional Program; successful completion of BUAD 300.

491. ADVANCED BUSINESS INTERNSHIP

1-3 hours credit

Research associated with an internship experience in business or government. **Prerequisites:** BUAD 490 or completion of ABLE requirement, placement approval and permission of the department chair, completion of ABLE administrative requirements. **One to three hours per week.**

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 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.**

695. PROJECT CONSULTING

3 hours credit

Apply the principles and techniques learned in the M.B.A. curriculum to real business problems faced by organizations. Teams work with either client organizations or business cases on a business challenge or opportunity. Apply learned technical and functional expertise to solving real-world problems while developing critical competencies in leadership skills such as team dynamics – either virtual or physical – problem solving and critical thinking. **Prerequisites:** Admission to the M.B.A. program. Course must be completed in the final two mini-semesters of the student's M.B.A. degree program requirements. **One hour per week.**

696. GRADATE BUSINESS STUDY ABROAD

3 hours credit

Examines advanced business topics in an international setting. Specific topics selected from fields of accounting, economics, finance, information systems, management or marketing, depending on the instructor's area of expertise. Part or all of the course will be held outside the United States. May be taken twice under different subtitles. **Prerequisite:** Admission to M.B.A. program and to a Perdue School study abroad 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 IVA or IVB.**

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 IVA or IVB.**

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 IVA or IVB.**

111. BIG IDEAS IN CHEMISTRY

3 hours credit

Non-laboratory course focusing on key developments in chemistry. While learning basic chemical principles, students analyze the historical context of these developments, what motivated the scientists to pursue their discoveries and the influence of each scientist's personal history. In addition, the

cultural, scientific and environmental effect of these developments are examined. **Three hours lecture per week. Meets General Education IVB.**

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 IVA or IVB.**

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 IVA or IVB.**

205. DIRECTED STUDIES IN CHEMISTRY

1-3 hours credit

Directed studies in chemistry on an approved subject under faculty supervision. Designed to incorporate significant and contemporary studies in chemistry that are not original laboratory-based research. Projects may include, but are not limited to, the study of teaching strategies, formal scientific writing and chemistry outreach programs to the community. Written report required. May be taken twice for a maximum of six credits. May not be used to satisfy requirements for chemistry major or minor. **Prerequisite:** CHEM 122 and permission of the department chair. **Three hours per week per credit.**

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. **Three hours per week per credit hour.**

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 IVA or IVB.**

221. ORGANIC CHEMISTRY I

4 hours credit

An introduction to the structure, properties and reactivity of carbon compounds. Analysis of molecular structure, including bonding, conformation and isomerism, is applied to the mechanisms of organic chemical reactions. Emphasis is placed on problem solving and effective communication of chemical ideas. **Prerequisite:** C or better in CHEM 122. **Three hours lecture, three hours laboratory per week. Meets General Education IVB.**

222. ORGANIC CHEMISTRY II**4 hours credit**

A continued introduction to the structure, properties and reactivity of carbon compounds. A range of chemical reactions are applied to the development of synthetic methods for organic molecule construction, including functional group interconversion and carbon-carbon bond formation. Spectroscopic techniques for molecule identification also are discussed. Emphasis is placed on problem solving, effective communication and integration of chemical concepts. **Prerequisite:** C or better in CHEM 221. **Three hours lecture, three hours laboratory per week.**

306. FUNDAMENTALS OF INORGANIC CHEMISTRY**4 hours credit**

Study of the fundamental concepts of inorganic chemistry. Primary focus on main group descriptive inorganic chemistry, structure and bonding theory for both main group and transition metal compounds and organometallic chemistry. May not receive credit for both CHEM 306 and CHEM 212/406. **Prerequisite:** CHEM 222 and PHYS 123 or 223. **Three hours per week with Web enhancement.**

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. **Prerequisites/ Corequisites:** CHEM 221 and permission of department chair. **Three hours per week per credit.**

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 IVB.**

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**4 hours credit**

Comprehensive study of the fundamental concepts of physical chemistry. **Prerequisites:** CHEM 122, PHYS 121 or 221. **Prerequisite/Corequisite:** MATH 202. **Four hours per week.**

342. PHYSICAL CHEMISTRY II**4 hours credit**

Comprehensive study of the fundamental concepts of physical chemistry. **Prerequisites:** CHEM 122, MATH 202. **Prerequisite/Corequisite:** PHYS 123 or 223. **Four 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.**

403. PRINCIPLES OF CHEMICAL RESEARCH**3 hours credit**

Individual undergraduate research on approved subject under supervision of a member of the faculty. Introduction to the chemical literature, writing styles and presentation styles

used in chemistry. **Prerequisite:** Twenty-four hours of chemistry and permission of department chair. **Nine 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:** CHEM 403 and permission of department chair. **Nine hours 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.**

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**

Lecture/laboratory-based exploration of biochemical techniques commonly used in industrial and academic laboratories. Demonstrates the relationships between the structure, interactions and functions of biomolecules and metabolic pathways. **Prerequisite/Corequisite:** CHEM 418. **Six hours per week.**

425. ADVANCED TOPICS IN ORGANIC CHEMISTRY**3 hours credit**

Examines current topics in the field of organic chemistry. Topics vary by instructor and may include bioorganic, medicinal, organometallic or physical organic chemistry. Problem solving and reading/discussion of the primary literature are emphasized. May be taken twice for credit under different topics. **Prerequisite:** CHEM 222. **Three hours per week.**

441. ADVANCED EXPERIMENTAL CHEMISTRY I**4 hours credit**

Blended lecture/lab experience in experimental chemistry. Emphasis on the relationship between synthesis, instrumental methods and thermodynamic principles. **Prerequisites:** CHEM 333, 341. **Prerequisite/Corequisite:** CHEM 306. **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. **Prerequisites:** CHEM 306, 342. **Prerequisite/Corequisite:** CHEM 333. **Six hours per week.**

499. SPECIAL TOPICS IN CHEMISTRY 3 hours credit

Study of a specific area of chemistry. Topic varies 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.

CHINESE (CHIN)

101. ELEMENTARY CHINESE I 4 hours credit

A foundational course in Modern Standard Chinese (Mandarin), provides competency at the lower novice level in cultural situations as well as in all areas of language usage: listening, speaking, reading and writing. Emphasis on learning simplified script. **Four hours per week. Meets General Education IIIA and IIIC.**

102. ELEMENTARY CHINESE II 4 hours credit

Continued skill development of listening, speaking, reading and writing in appropriate cultural situations. More emphasis on reading and writing of Chinese characters in simplified script. **Prerequisite:** CHIN 101 or appropriate score on department placement exam. **Four hours per week. Meets General Education IIIA and IIIC.**

201. PRE-INTERMEDIATE CHINESE I 4 hours credit

Addresses culture and all four areas of language learning: listening, speaking, reading and writing. Students interact appropriately in a variety of social and linguistic situations. Provides exposure to the traditional script. **Prerequisite:** CHIN 102 or appropriate score on department placement exam. **Four hours per week. Meets General Education IIIA and IIIC.**

202. PRE-INTERMEDIATE CHINESE II 4 hours credit

Provides the final preparation for students to work at an intermediate level in authentic readings and topics. Increasingly sophisticated cultural tasks are performed in the four areas of language development: listening, speaking, reading and writing. **Prerequisite:** CHIN 201 or appropriate score on department placement exam. **Four hours per week. Meets General Education IIIA and IIIC.**

COMMUNICATION ARTS (CMAT)

100. FUNDAMENTALS OF COMMUNICATION 4 hours credit

Surveys the basic competencies necessary to articulate oneself effectively in a variety of communication settings. Topics include interpersonal and intercultural relationships, formal and informal groups, and public forums with a primary focus on basic presentation skills. May not be used for communication arts major or minor requirements. **Three hours per week with enhancement. Meets General Education IIIA and IIIC.**

101. INTRODUCTION TO HUMAN COMMUNICATION STUDIES

4 hours credit

Introduction to the basic principles and theories of human communication. Explores contexts such as interpersonal relationships, small groups, organizations, intercultural interaction and public speaking. In each context, practice skills of effective communication while gaining understanding of the relevant theories and research that are foundational to the discipline. Designed for communication arts majors and minors. **Three hours per week with enhancement. Meets General Education IIIA and IIIC.**

102. INTRODUCTION TO MASS MEDIA

4 hours credit

Theory, history, structure and functions of mass media (print, film, recording, radio, television, new media), advertising, journalism and public relations. Students may not receive credit for both CMAT 110 and CMAT 102. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

131. WRITING FOR MEDIA

4 hours credit

Fundamentals of writing for media, including basic script formats and other forms of media content including public service announcements, advertisements, continuity, public relations materials, news and dramas. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

205. INTERPERSONAL COMMUNICATION

4 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 with enhancement. Meets General Education IIIA or IIIC.**

218. RHETORIC AND PUBLIC PRESENTATION

4 hours credit

Designed to provide extensive exposure to, 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 101. **Three hours per week with enhancement.**

234. BEGINNING AUDIO PRODUCTION

4 hours credit

Covers the basic skills and techniques required for audio production in media. Emphasis is on the aesthetics, principles and practices in producing and designing audio programs for media. May not receive credit for both CMAT 134 and CMAT 234. **Prerequisite:** C or better in CMAT 131. **Three hours per week with enhancement.**

240. JOURNALISM I

4 hours credit

Fundamentals of media writing applicable across multiple storytelling platforms, including inverted pyramid and hard news, feature and narrative writing. **Prerequisites:** C or better in CMAT 101 and 102. **Three hours per week with enhancement.**

241. JOURNALISM II

4 hours credit

Intermediate study of the principles and practices of news reporting. Exposure to covering news beats, establishing news sources, and producing accurate and comprehensive multimedia journalism news products. Introduction to the basics of producing and editing digital photos, video and audio, along with the ethical considerations when collecting sound and visuals. **Prerequisite:** C or better in CMAT 240. **Four hours per week.**

243. TELEVISION STUDIO PRODUCTION**4 hours credit**

Introduction to the equipment and techniques of television studio production. Each student produces and directs a variety of live-to-tape productions. Outside class crew hours required. May not receive credit for both CMAT 136 and 243. **Prerequisite:** C or better in CMAT 131. **Three hours per week with enhancement.**

248. INTRODUCTION TO PUBLIC RELATIONS**4 hours credit**

Fundamentals of public relations, including history of the field, theories of persuasion and communication, legal and ethical considerations, and the current state and future of the practice. **Prerequisites:** C or better in CMAT 101 and 102. **Three hours per week with enhancement.**

249. COMMUNICATION ARTS PRACTICUM**2 hours credit**

Gain field experiences in a variety of on-campus and off-campus organizations. Earn credit working with groups related to the student's communication arts track. **Prerequisites:** C or better in CMAT 101 and 102, sophomore standing, permission of the department. **Two hours per week.**

250. INSTRUCTIONAL COMMUNICATION**4 hours credit**

Study of the communicative factors involved in the teaching-learning process in classroom and corporate contexts. Emphasis is on the selecting, limiting, organizing and presenting of content that needs to be conveyed from instructor to learner(s). Special focus is given to developing a supportive environment, effective questioning and positive interpersonal relationships. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

260. FUNDAMENTALS OF ORGANIZATIONAL COMMUNICATION**4 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 organizational communication. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

297. COMMUNICATION RESEARCH**4 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 relationships, business, media, or advertising/public relations. May not receive credit for both CMAT 297 and CMAT 301. **Prerequisite:** C or better in CMAT 101 and 102. **Three hours per week with enhancement.**

300. INTERCULTURAL COMMUNICATION**4 hours credit**

Study of correctable communication problems caused by cultural 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 297. **Three hours per week with enhancement.**

304. COMMUNICATION, GENDER AND CULTURE**4 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 297. **Three hours per week with enhancement.**

305. RELATIONAL COMMUNICATION**4 hours credit**

Examines theories and concepts that highlight the role of communication in personal and intimate relationships. Additional emphasis is on the role of communication in the life-cycle of a relationship. **Prerequisites:** C or better in CMAT 297. **Three hours per week with enhancement.**

306. CONVERSATIONAL ANALYSIS**4 hours credit**

Study of conversational goals and strategies. Focus on recognizing and understanding role of specific features (i.e. pronouns, sentence structure) in interpersonal contexts; individual communicative strategies and their effects on conversational patterns. **Prerequisites:** C or better in CMAT 297. **Three hours per week with enhancement.**

307. INTERPERSONAL CONFLICT**4 hours credit**

Examines the role of communication in interpersonal contexts where there is a need to manage conflict. Explores how communication can reflect, create and transform conflict. Analyzes the role of power, climate, emotions and other factors that contribute to destructive or constructive conflict patterns. 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 297. **Three hours per week with enhancement**

308. INTERVIEWING**4 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 101 and 102. **Three hours per week with enhancement.**

310. SMALL GROUP DISCUSSION**4 hours credit**

Participation in and analysis of small group discussion. Emphasizes communication within the small group setting and effective group decision making. **Prerequisites:** Junior standing and C or better in CMAT 101. **Three hours per week with enhancement.**

312. NONVERBAL COMMUNICATION**4 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 297. **Three hours per week with enhancement.**

314. CONFERENCE AND MEETING MANAGEMENT**4 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 conference. **Prerequisites:** Junior standing and C or better in CMAT 100 or 101 or 260. **Three hours per week with enhancement.**

317. PERSUASION AND ARGUMENTATION**4 hours credit**

Introduction to the study of persuasion and argumentation. Focus on how changes in attitudes and behavior may generally result and how various factors may contribute to persuasive outcomes. Examines practical reasoning in the construction of persuasive argument. Course includes practice in oral

and written argument. Students who have taken both CMAT 315 and 316 may not receive credit for CMAT 317. **Prerequisite:** C or better in CMAT 297. **Three hours per week with enhancement.**

318. EVENT PLANNING AND COMMUNICATION

4 hours credit

Theory and practice of event management and planning. Application, knowledge and understanding of planning and implementation of a variety of professional and non-professional events. Components include budgeting, contracts, liability, technology, aesthetics, marketing and promotion. **Prerequisite:** C or better in CMAT 101, 102 and junior standing. **Three hours per week with enhancement.**

331. DRAMATIC WRITING FOR MEDIA

4 hours credit

Study of the concepts and techniques associated with dramatic fiction writing for media. Students acquire skills through analysis of sample screenplays, movies and TV programs and through developing short motion picture and television screenplays and treatments. **Prerequisite:** C or better in CMAT 131. **Three hours per week with enhancement.**

332. MEDIA CRITICISM AND ANALYSIS

4 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 102. **Three hours per week with enhancement.**

334. THE MASS MEDIA IN SOCIETY

4 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 102. **Three hours per week with enhancement.**

335. COMMUNICATING ON THE WEB

4 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 will 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 101, 102 and junior standing. **Three hours per week with enhancement.**

336. CINEMA AND SOCIETY

4 hours credit

Analyze how certain motion pictures have influenced society during certain phases of the nation's history. Explore how audience responses to this popular medium demonstrate the specific effects these films have upon social issues and modernity, including gender, sexuality and ethnicity. Case studies assist in understanding basic aspects of media studies and their importance. **Prerequisite:** C or better in CMAT 102. **Four hours per week.**

337. INTERNATIONAL MEDIA SYSTEMS

4 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:** C or better in CMAT 102. **Three hours per week with enhancement.**

338. MASS MEDIA MANAGEMENT

4 hours credit

Study of problems facing today's managers in an ever-changing media landscape. Topics include economics, ownership, leadership, conflict management, programming, advertising, community relations and Federal Communications

Commission rules and regulations. **Prerequisite:** C or better in CMAT 102. **Three hours per week with enhancement.**

339. BUSINESS OF MEDIA

4 hours credit

A historical and critical study of how media industries have thrived in contemporary society as business models, and the power they wield to shape public opinion. Addresses how the heads of media conglomerates continue to survive in the deeply competitive world of mass communications, and the place today's student may have within the industry. Requires extensive reading, writing and class discussion on a range of business models and related topics. **Prerequisite:** C or better in CMAT 102. **Three hours per week with enhancement.**

340. PUBLIC RELATIONS WRITING

4 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:** C or better in CMAT 240. **Three hours per week with enhancement.**

342. ADVERTISING CAMPAIGNS

4 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 102. **Three hours per week with enhancement.**

343. VIDEO FIELD PRODUCTION

4 hours credit

Study of the production of television and film programs using single camera and editing techniques. May not receive credit for both CMAT 236 and 343. **Prerequisite:** C or better in CMAT 234 and 243. **Three hours per week with enhancement.**

344. WRITING FOR THE PROFESSIONS

4 hours credit

Comprehensive writing course that prepares students for public relations and strategic communication careers. Requires weekly writing assignments, many of which are under stringent deadlines. **Prerequisite:** C or better in CMAT 248. **Three hours per week with enhancement.**

345. SPORTS COMMUNICATION

4 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 344. **Three hours per week with enhancement.**

346. PUBLIC AFFAIRS REPORTING

4 hours credit

Examines media coverage of public agencies and social issues while emphasizing civic journalism. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

347. MOBILE JOURNALISM

4 hours credit

Theory and practice of the production of print, broadcast and online journalism using mobile communication devices. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

348. MEDIA DESIGN AND LAYOUT

4 hours credit

Instruction in the principles, theories and applications of

typography, layout, design, editing and production of print and electronic dissemination of business publications, newspapers, magazines, websites and other new media. The course is designed to help develop desktop printing and online publishing skills. **Prerequisite:** C or better in CMAT 344. **Three hours per week with enhancement.**

349. ADVANCED FEATURE STORYTELLING
4 hours credit

Advanced study of the theory and practice of feature writing. Produce, edit and critique a range of feature writing styles for a range of platforms. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

354. ADVANCED AUDIO PRODUCTION
4 hours credit

An intensive advanced-level audio production course. Advances the students' broad audio knowledge and production abilities in creative sound recording/mixing/processing/editing and sound design. Emphasizes audio for media, applied media aesthetics, sound design, and creative and artistic approaches to various types of sophisticated audio production including music recording, radio production and audio for other media (video, film, new media). **Prerequisite:** CMAT 234. **Three hours per week with enhancement.**

365. MANAGERIAL COMMUNICATION
4 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:** Junior standing and C or better in CMAT 101 or 260. **Three hours per week with enhancement.**

373. PRODUCING NEWS PACKAGES AND DOCUMENTARY SHORTS
4 hours credit

Provides a solid foundation of theoretical and practical skills needed to tell nonfiction stories for the visual mass media. Produce a wide variety of news packages and documentary shorts. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

374. 2D ANIMATION
4 hours credit

Introduction to the history, theory and practice of 2D animation in a variety of fields (news, documentary, advertising and dramatic narrative). **Prerequisite:** C or better in CMAT 343. **Four hours per week.**

390. SPECIAL TOPICS IN HUMAN COMMUNICATION STUDIES
4 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 297. **Three hours per week with enhancement.**

391. STUDIES IN MASS MEDIA
4 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 102. **Three hours per week with enhancement.**

392. STUDIES IN MEDIA PRODUCTION
4 hours credit

Study of different concepts and practices as they apply to media production. May be repeated under different subtitles. **Prerequisite:** C or better in CMAT 234 and 243. **Four hours per week.**

394. STUDIES IN PUBLIC RELATIONS/ STRATEGIC COMMUNICATION
4 hours credit

Study of various concepts, theories and/or practices in public relations and/or strategic communication. May be repeated once under different subtitles. **Prerequisite:** C or better in CMAT 344. **Three hours per week with enhancement.**

395. STUDIES IN MULTIMEDIA JOURNALISM
4 hours credit

Study of various concepts, theories and/or practices in multimedia journalism. May be taken twice under different subtitles. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

399. INTERNATIONAL STUDIES IN COMMUNICATION
4 hours credit

On-site study of human communication, media, journalism and culture of selected countries. Field study is preceded by pre-tour lectures. Understand the culture and communication of a foreign country through immersion and experiential learning. May be taken twice under different subtitles. **Prerequisites:** Permission of instructor. **Four hours per week.**

400. ADVANCED COMMUNICATION THEORY
4 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 297. **Three hours per week with enhancement.**

405. FAMILY COMMUNICATION
4 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 297. **Three hours per week with enhancement.**

430. POLITICAL COMMUNICATION
4 hours credit

Studies the role of media and rhetoric in political campaigns and the political process. **Prerequisites:** C or better in CMAT 297. **Three hours per week with enhancement.**

433. DOCUMENTARY PRODUCTION
4 hours credit

Investigates documentary styles and techniques while emphasizing the documentary production process. Over the course of a semester, develop a documentary project by turning in the various components (proposal, treatment, rushes, etc.), culminating in a completed 24-30 minute documentary. May not receive credit for both CMAT 333 and 433. **Prerequisite:** C or better in CMAT 343. **Three hours per week with enhancement.**

434. TELEVISION MAGAZINE PRODUCTION
4 hours credit

Attain practical, real-world experience by producing a bi-weekly program for SU's campus and community access channels. Create seven bi-weekly, half-hour programs (in the "soft news" genre) that highlight campus-related achievements, events and interests of students' choosing. All on-camera and behind-the-scene crew positions are filled by students. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

435. DIRECTING FOR THE CAMERA
4 hours credit

Introduction to processes and skills required to plan, design

and direct drama for the television/film medium. Study the formalistic elements of the medium and complete the required projects designed to provide practical experience in planning and then directing material that persuades, informs and entertains audiences. Fundamentals of the language of television/film are stressed: aesthetics and their application. Emphasis on the communication between directors and actors, effective use of the audiovisual language, camera blocking and visual storytelling. **Prerequisite:** C or better in CMAT 343. **Three hours per week with enhancement.**

**438. MASS COMMUNICATION LAW
4 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. **Prerequisite:** C or better in CMAT 102 and junior standing. **Three hours per week with enhancement.**

**439. CRITICAL ISSUES IN NEW MEDIA
4 hours credit**

Critical study of the transformation of the mass media and cultural landscape in relation to digital media and information technologies. Examines the consequences of the convergence of media platforms and technologies for individuals, society, politics, culture and the media industries. **Prerequisites:** C or better in CMAT 102 and junior standing. **Three hours per week with enhancement.**

**440. MEDIA AND CRIMINAL JUSTICE
4 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 344. **Three hours per week with enhancement.**

**444. ENVIRONMENTAL COMMUNICATION
4 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. **Prerequisite:** C or better in CMAT 100 or 101, and junior standing. **Three hours per week with enhancement.**

**445. DIGITAL PUBLIC RELATIONS
4 hours credit**

The study and practice of strategic communication principles guiding social media strategy planning, integration, monitoring and measurement over a range of platforms and its systematic application. **Prerequisite:** C or better in CMAT 101, 102 and junior standing. **Three hours per week with enhancement.**

**446. DIGITAL FILMMAKING
4 hours credit**

Explores the art of filmmaking using digital technology. Requires producing a short film from script to screen. Students write, produce, direct, cast, shoot and edit a short film in a genre of their choice. Film theory and techniques are explored and applied in the production. HD equipment is used for acquisition and finishing. **Prerequisite:** C or better in CMAT 343. **Three hours per week with enhancement.**

**447. INTERNATIONAL PUBLIC RELATIONS
4 hours credit**

Study of strategic communication principles and theoretical

frameworks guiding research, design, implementation and evaluation of international public relations efforts by corporations, institutions and nongovernmental organizations. **Prerequisite:** C or better in CMAT 101, 102 and junior standing. **Three hours per week with enhancement.**

**448. PUBLIC RELATIONS CASES AND STRATEGIES
4 hours credit**

Examines public relations cases while developing strategies and scenarios for response. **Prerequisite:** C or better in CMAT 344. **Three hours per week with enhancement.**

**456. ADVANCED TELEVISION STUDIO PRODUCTION
4 hours credit**

Advanced-level production course designed for experience in writing, designing and producing programs in a television studio environment. Emphasis on program proposals, writing, producing, directing and use of digital technology in production. May not receive credit for both CMAT 336 and 456. **Prerequisites:** C or better in CMAT 343. **Four hours per week.**

**460. APPLIED ORGANIZATIONAL COMMUNICATION
4 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:** Junior standing and C or better in CMAT 297. **Three hours per week with enhancement.**

**465. COMMUNICATION TECHNOLOGY
4 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:** Junior standing and C or better in CMAT 101, 102. **Three hours per week with enhancement.**

**466. SPECIALIZED REPORTING FOR TV AND THE WEB
4 hours credit**

Provides an opportunity to focus reportorial and production skills on a specialized topic. Specialized topics could include, but are not limited to, sports, community, business or international issues. Student work produced will be offered to media organizations around Maryland for use in professional broadcast news programs or news websites. **Prerequisite:** C or better in CMAT 241. **Three hours per week with enhancement.**

**490. COMMUNICATION SEMINAR
4 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, but only four credits may be applied to the communication arts major. **Prerequisites:** Senior standing and permission of the instructor. **Three hours per week with enhancement.**

**492. INDEPENDENT STUDY
1-4 hours credit**

Student selects a topic for investigation with the advice of an instructor prior to registration. Student submits 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. Students opting for CMAT 492 as an elective requirement must take a minimum of four credits. May be taken twice for a total of eight credit hours, and only four credits may count toward the major. **Prerequisite:** Permission of department chair. **Hours arranged.**

495. INTERNSHIP IN COMMUNICATION**1-8 hours credit**

Provides practical experience in the application of theoretical concepts including broadcasting, theatre, journalism, organizational communication, public relations, training, etc. Only four hours may be counted toward the major. Students opting for CMAT 495 as a core requirement must take a minimum of four credits. May be taken twice for a total of eight credit hours. **Prerequisites:** C or better in CMAT 101, 102, junior standing, track core courses, 2.5 overall G.P.A., 3.0 G.P.A. in CMAT and permission of the department. **Variable.**

497. INDEPENDENT RESEARCH**4 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 submits 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 297, (at least 3.0 GPA in CMAT courses) permission of department chair and approval and cooperation of supervising instructor. **Four hours per week.**

499. HONORS**4 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 conflict, 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 IVB.**

117. PROGRAMMING FUNDAMENTALS**4 hours credit**

Introductory course in computer programming, which involves solving problems by designing, implementing and testing algorithms. Emphasis is on problem solving through the use of algorithms and learning to develop computer programs that are reliable, well-documented and correct. Implementation is done in object-oriented based languages concentrating on fundamental instructions and the development and implementation of events, methods and functions. **Three hours lecture, two hours laboratory per week. Meets General Education IVB.**

118. INTRODUCTORY SCIENTIFIC PROGRAMMING**4 hours credit**

Introduction to program design and development. Programs focus on development of applications for science, including applications related to GIS. The object-oriented approach is emphasized throughout. No previous programming experience is required. **Three hours lecture, two hours laboratory per week.**

119. INTRODUCTION TO WEB DEVELOPMENT**4 hours credit**

Introductory course in Web development through the use of XHTML (Extensible Hypertext Markup Language), CSS (Cascading Style Sheets) and Java. Intended for B.A. art majors in visual communications and B.F.A. art majors in graphic design. Labs focus on Web page development through the use of forms, tables, menus, graphics and JavaScript. **Three hours lecture, two hours laboratory per week. Meets General Education IVB.**

120. COMPUTER SCIENCE I**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. **Prerequisite:** C or better in COSC 117 or permission of department. **Three hours lecture, two hours laboratory per week.**

220. COMPUTER SCIENCE II**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:** C or better in COSC 120. **Prerequisite/Corequisite:** MATH 210.

**Three hours lecture, two hours laboratory per week.
Meets General Education IVB.**

**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:** C or better in COSC 116 or 120. **Three hours lecture, two hours laboratory per week.
Meets General Education IVB.**

**320. ADVANCED DATA STRUCTURES
AND ALGORITHM ANALYSIS
4 hours credit**

Continuation of the study of the design, implementation and testing of programs. Further study of object-oriented programming. Introduction of graphical user interfaces. Emphasis is on analysis of algorithms and abstraction. **Prerequisites:** C or better in COSC 220, MATH 210. **Three hours lecture, two hours laboratory per week.**

**330. OO DESIGN PATTERNS AND GUI/
EVENT-DRIVEN PROGRAMMING
3 hours credit**

Covers three related topics: event-driven programming, graphical user interface (GUI) and object-oriented (OO) design using design patterns. The event-driven model is examined throughout the course. OO design is introduced through the analysis of design patterns. There are several programming projects for this course. **Prerequisites:** C or better in COSC 220. **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:** C or better in COSC 220, 250. **Three hours lecture, two hours laboratory per week.**

**362. THEORY OF COMPUTATION
4 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. **Prerequisites:** C or better in COSC 120, MATH 210. **Four hours per week.**

**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:** C or better in COSC 220, 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 department. Cross-listed with MATH 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 ten hours per week.
(P/F)**

**385. 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. This course may be repeated under different subtitles, for a total of 9 credits, 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 approval of department chair. **One to four hours per week.**

**386. DATABASE IMPLEMENTATION
3 hours credit**

Concentrates on the physical design and implementation of databases. Query algorithms and efficiency optimization are explored. Design, implement and document large database systems. **Prerequisite:** C or better in COSC 220, MATH 210. **Three hours per week.**

**390. UNDERGRADUATE RESEARCH PROJECT
1-3 hours credit**

Offers study of some area of computer science in more depth than is possible in the usual classroom setting. Students work on projects under the direction of faculty members. **Prerequisite:** Approval of department chair. **(P/F)**

**420. HIGH-PERFORMANCE COMPUTING
4 hours credit**

Principles and practice of parallel and distributed computing. Topics include modern computing architectures, concurrency principles and algorithm design, and applications and programming. **Prerequisite:** C or better in COSC 320. **Four hours per week.**

**422. 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 grammar, control, binding, pointers, blocks, parameters, and encapsulation. **Prerequisite:** C or better in COSC 220. **Three hours per week.**

**425, 426. SOFTWARE ENGINEERING I, II
3 hours credit**

Study of conventional and object-oriented software engineering principles and methods: the human-computer interface, requirements analysis, prototyping, software design, system models, use of tools, project management, implementation, testing strategies, software metrics, maintenance, quality assurance, ethics and professional responsibility. Use of standards, verification and validation, configuration management, quality assurance and human factors. Student teams will analyze a real-world problem and design, implement, document and test a software system based upon the specified requirements. COSC 426 is a continuation of 425. **Prerequisite:** C or better in COSC 320. **Three hours per week.**

**432. COMPILER CONSTRUCTION
3 hours credit**

Concentrates on the principles, techniques and tools of modern compiler construction. Topics include lexical analysis, parsing and semantic analysis, translation, code generation, run-time organization, abstract syntax, type checking and register allocation. Will design and implement a working compiler. **Prerequisite:** C or better in COSC 320. **Prerequisite/Corequisite:** C or better in COSC/MATH 362. **Three hours per week.**

**450. 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:** C or better in COSC 350. **Three hours per week.**

456. COMPUTER ARCHITECTURE
3 hours credit

Advanced study of computer systems which includes addressing modes, parallelism, pipeline processing, memory management, control designs and I/O interrupts. Various architectures compared and contrasted. **Prerequisites:** C or better in COSC 220, 250. **Three hours per week.**

472. NETWORK SECURITY
3 hours credit

The principles and practice of network security, covering three areas: security risks and countermeasures, principles of computer cryptography, and applied cryptography in network systems. Topics include the themes and challenges of network security, the role of cryptography and modern techniques for computer and network security. **Prerequisite:** C or better in COSC 370. **Three hours per week.**

482. COMPUTER GRAPHICS
4 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. May not receive credit for both COSC 482 and MATH 482. **Prerequisites:** C or better in COSC 120, and either MATH 293 or MATH 306. **Four 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:** C or better in COSC 220. **Three hours per week.**

495. 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:** Invitation by department chair. **Four hours per week. (P/F)**

501. COMPUTER SCIENCE FOR MATH AND SCIENCE TEACHERS
3 hours credit

Study of microcomputers, advanced programming concepts and other topics appropriate to secondary school teachers of mathematics and science. Graduate credit only. **Prerequisites:** C or better in COSC 120, graduate standing.

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 grammar, control, binding, pointers, blocks, parameters, and encapsulation. Credit may not be received for more than one: COSC 422, COSC 522. **Prerequisites:** C or better in COSC 220, graduate standing. **Three hours per week.**

550. OPERATING SYSTEMS
3 hours credit

Analysis of the operating system, the program which super-

vises 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. Credit may not be received for more than one: COSC 450, COSC 550. **Prerequisites:** C or better in COSC 350, graduate standing. **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 MATH 482. Credit may not be received for more than one: COSC 482, COSC 582, MATH 482, MATH 582. **Prerequisites:** C or better in COSC 120, and either MATH 293 or MATH 306, graduate standing. **Four 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:** C or better in COSC 220, graduate standing. **Three hours per week.**

CONFLICT ANALYSIS AND DISPUTE RESOLUTION (CADR)

200. FOUNDATIONS OF CONFLICT AND CONFLICT RESOLUTION
4 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, their application, the dynamics of conflict and an overview of key conflict resolution processes. Students learn to understand their own conflicts and how the theories, skills and practices of conflict resolution can make conflict productive. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

225. SOCIOLOGY OF CONFLICT AND NONVIOLENCE
4 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 with enhancement. Meets General Education IIIB or IIIC.**

300. THEORIES OF CONFLICT AND CONFLICT RESOLUTION
4 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 factors, variables and social dynamics that often signal the onset of social conflict. **Three hours per week with enhancement.**

301. INTERNATIONAL CONFLICT AND CONFLICT RESOLUTION
4 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 with enhancement.**

302. CROSS-CULTURAL CONFLICT ANALYSIS AND INTERVENTION

4 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 with enhancement.**

303. STUDIES IN CONFLICT ANALYSIS AND DISPUTE RESOLUTION

4 hours credit

Selected areas of study within varied subfields of conflict analysis and dispute resolution. Course may be taken three times under different subtitles. **Prerequisite:** CADR 200. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

321. RESEARCH METHODS

4 hours credit

Introduction to qualitative and quantitative social research methods. Emphasis on research design, question formulation, sampling techniques, hypothesis testing, data analysis, computer processing and practical research activity. **Three one-hour lectures, one two-hour laboratory per week.**

400. PRACTICUM AND INTERNSHIP

3 or 4 hours credit

Provides a supervised and mentored experience practicing conflict resolution in local, regional, national or international organizations. Students are required to design their own practicum experience with the assistance of conflict analysis and dispute resolution faculty in order to best suit their particular interests, career goals and aspirations. **Prerequisites:** Permission of the instructor and junior standing are required to register for the course. Must apply for the practicum experience the semester before registering for the class. May be taken twice with a maximum four credits applied toward the major. **Eight to ten hours per week. (P/F with pass equivalent to C or better)**

401. DISPUTE SYSTEMS DESIGN

4 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 with enhancement.**

403. RESOLVING ENVIRONMENTAL CONFLICT

4 hours credit

Environmental conflict is the major problem facing most civilizations in the 21st century. This course provides a systems 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 with enhancement.**

404. NEGOTIATION AND CONFLICT MANAGEMENT IN BUSINESS

4 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 with enhancement.**

405. SPECIAL TOPICS

4 hours credit

Selected areas of study within varied subfields of conflict analysis and dispute resolution. May be taken twice under different subtitles. **Prerequisites:** CADR 200. **Three hours per week with enhancement.**

490. INDIVIDUAL DIRECTED STUDY

1-4 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 eight credits with faculty approval. **Prerequisites:** CADR 200, major in conflict analysis and dispute resolution, and permission of instructor. **One to three hours per week with enhancement.**

495. INDIVIDUAL RESEARCH

4 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 eight credits with faculty approval. **Prerequisites:** CADR 200, CADR/SOCI 321, major in conflict analysis and dispute resolution, and permission of instructor. **Three hours per week with enhancement.**

500. INTRODUCTION TO CONFLICT ANALYSIS AND RESOLUTION

3 hours credit

Introduction to various practices, history and formative theories of the field; basic analytical and conceptual frameworks; and how theory and practice reinforce each other. Explores how values and world views shape practices and will include reflective exercises to identify individual styles, value sets and approaches to conflict and intervention. **Three hours per week.**

510. PROBLEM SOLVING, NEGOTIATION AND CONFLICT ASSESSMENT

3 hours credit

Explores basic negotiation and problem-solving theory and practice from basic "two-party, one-issue disputes" to more complex cases requiring additional intervention skills. Familiarizes students with the negotiation process; provides experience with conflict analysis and assessment; examines issues of effective data gathering, identification of stakeholders and getting people to the negotiation table; and reviews the process of assessment as it relates to selecting appropriate conflict resolution practices. **Three hours per week.**

520. STRUCTURAL AND SYSTEMATIC CONFLICT AND DISPUTE SYSTEMS

3 hours credit

Examines the hidden sources of conflicts that are often

embedded in social, legal, political, and organizational structures and systems. Emphasizes rules, regulations, roles, contractual obligations, laws, informal agreements and other ties that bind people together to create conflict among individuals and groups. Examines organizations, institutions or governments for root causes of conflict. **Three hours per week.**

530. MEDIATION THEORY AND PRACTICE

3 hours credit

Engages students in the major debates and nuances of practice in the field, specifically focusing on the interpersonal level of intervention. Distinctions are made concerning various mediation styles and various schools of thought on how and when to intervene in a case. Students create models of practice from a wide range of process skills and approaches and apply process and analytical knowledge to cases possessing various levels of complexity. **Prerequisite:** CADR 510. **Three hours per week.**

540. THEORIES OF CONFLICT AND CONFLICT RESOLUTION

3 hours credit

Examines theoretical base relating to conflict sources and conflict intervention. Provides a series of frameworks for analyzing complex conflict dynamics. **Three hours per week.**

550. RESEARCH METHODS

3 hours credit

Explores various research methods for collecting, tracking, managing, and analyzing quantitative and qualitative data. Course includes a research project that employs various forms of data collection and analysis. **Prerequisite:** CADR 500. **Three hours per week.**

600. GROUP PROCESSES AND COMPLEX CONFLICTS

3 hours credit

Explores the complexities of large group interventions including organizational, intergroup and international work. Topics include large group consensus processes, multi-party arbitration, negotiated rulemaking, external dynamics, engaging multiple levels of government and community, working internationally, and dealing with the media. **Prerequisites:** CADR 500, 510. **Three hours per week.**

610. WORKSHOPS, TRAINING AND CONFLICT COACHING

3 hours credit

Examines services provided by conflict resolution practitioners. Topics include constructing training workshops, coordinating programs for local organizations, and addressing professional development issues such as self marketing, developing and presenting conflict intervention products, developing and maintaining a client base, and writing reports and evaluations. **Prerequisite:** CADR 500. **Three hours per week.**

620. SPECIAL TOPICS

3 hours credit

A special topics course with varying content developed in response to faculty and student interests. **Three hours per week.**

630. STUDIES IN CONFLICT ANALYSIS AND DISPUTE RESOLUTION

3 hours credit

Selected areas of study within varied subfields of conflict analysis dispute resolution. Topics will vary in response to faculty and student interests. **Three hours per week.**

640. FIELD PRACTICUM I

3 hours credit

An intensive, semester-long practicum, focused on practical field-based experiential learning. An academic program coordinator assists in developing a practicum site and project. The course requires an average of five-six hours per week throughout the semester in addition to the time reserved for

classroom activity, reading and research for the final project. **Prerequisites:** CADR 500, 520. **Five-six hours per week.**

641. FIELD PRACTICUM II

3 hours credit

An advanced self-guided practicum. Students may continue their practicum experience in CADR 640 or create a new practicum experience with faculty approval. The course requires an average of five to six hours per week throughout the semester in addition to the time reserved for classroom activity, reading and research for the final project. **Prerequisite:** CADR 640. **Five-six hours per week.**

650. RESEARCH THESIS PROJECT

3 hours credit

A seminar that assists with the thesis process which leads to a project of publishable quality. Opportunities for peer review and establishing incremental goals are available in this course. Students wishing to conduct a thesis must make this known in their first year of study and must complete and publicly present their thesis prior to the end of their final semester. **Prerequisites:** CADR 550 and permission of instructor. **Three hours per week.**

651. PROFESSIONAL DEVELOPMENT

3 hours credit

A seminar that helps execute a professional development project. Opportunities for peer review and establishing incremental goals are available in this course. Students wishing to execute a professional development project must make this known in their first year of study and must complete and publicly present their professional development project prior to the end of their final semester. **Prerequisites:** CADR 610 and permission of instructor. **Three hours per week.**

DANCE (DANC)

106. DANCE COMPANY

1 hour credit

Ensemble study focuses on dance as a fine art in the rehearsal and performance of ballet, ethnic, jazz, modern and musical theatre dance works choreographed by resident faculty, professional guest artists and selected student members. May be taken for a total of eight credit hours with three applied to the creative arts minor. **Prerequisite:** Previous training and audition. **Four hours per week.**

150. YOGA

4 hours credit

Study and practice of yoga. Focuses on sequences for strength, flexibility, and balance and techniques for breath awareness, meditation and relaxation. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

162. CREATIVE MODERN DANCE I

4 hours credit

Introduction to beginning modern dance as a creative art form. Focuses on a biomechanical approach to movement and basic principles and techniques derived from the American founders of modern dance. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

167. BALLET I

4 hours credit

Introduction to beginning classical ballet technique. Focuses on placement and body alignment, barre work, and simple adagio and allegro movements. **Prerequisite:** Little to no previous training. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

168. JAZZ DANCE

4 hours credit

Introduction to beginning jazz dance technique. Focuses on placement, isolations and rhythmicality. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

202. DANCE APPRECIATION

4 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 with enhancement. Meets General Education IIIA or IIIC.**

262. CREATIVE MODERN DANCE II

4 hours credit

Continuation of modern dance principles and techniques. Focuses on complex sequences and extended creative studies. **Prerequisite:** DANC 162 or equivalent. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

267. BALLET II

4 hours credit

Continuation of classical ballet principles and techniques. Focuses on complex adagio and allegro sequences. **Prerequisite:** DANC 167 or equivalent. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

268. MUSICAL THEATRE DANCE

4 hours credit

Survey of musical theatre dance from late 19th century African-based forms through 20th century Broadway show styles. Focuses on the study of ballroom, ballet, jazz and tap dance techniques and selected repertory. **Prerequisite:** DANC 167 or 168 or 267. **Three hours per week with enhancement.**

360. TEACHING DANCE

4 hours credit

Study applies dance pedagogy to practicum experience and develops a theoretical framework for the art and craft of teaching dance. **Prerequisites:** DANC 162, 167, 168 and dance minor status. **Three hours per week with enhancement.**

490. SELECTED TOPICS

4 hours credit

Intensive study of selected topics in dance. May be repeated for a maximum of four hours under different subtitles. **Prerequisite:** Permission of instructor. **Three hours per week with enhancement**

491. INDEPENDENT STUDY

1-4 hours credit

Intensive research opportunity for dance minors on a selected subject. May be taken under different subtitles for a total of four hours. **Prerequisite:** Proposal and permission of instructor and department chair prior to registration. **Three hours per week with enhancement.**

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 concur-

rently with or after having completed ECON 211 or 212. **Three hours per week. Meets General Education IIIB or IIIC.**

211. PRINCIPLES OF MICROECONOMICS

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 IIIB or IIIC.**

212. PRINCIPLES OF MACROECONOMICS

3 hours credit

Explores 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 IIIB or IIIC.**

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.**

230. QUANTITATIVE ECONOMICS

3 hours credit

Introduction to the mathematical and statistical tools that economists use to examine economic behavior. Univariate calculus, multivariate calculus, linear algebra and optimization are reviewed and applied to economic models. Statistical principles, hypothesis testing and regression analysis are introduced as tools to empirically examine economic theories. **Prerequisites:** C or better in MATH 155 and 160 (or 201). **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:** C or better in ECON 211, 212. **Three hours per week.**

311. INTERMEDIATE MICROECONOMICS

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. May not receive credit for ECON 306 and ECON 311. **Major Prerequisites:** Admission to the Professional Program and ECON 211, ECON 212. **Non-Major Prerequisites:** Junior standing, ACCT 201, MATH 155, ECON 150 or ECON 211. **Three hours per week.**

312. INTERMEDIATE MACROECONOMICS

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. May not receive credit for ECON 305 and ECON 312. **Prerequisites:** C or better in all of the following: ECON

211, ECON 212, ECON 230, MATH 155, MATH 160 (or 201).
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:** C or better in 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:** C or better in all of the following: ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **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:** C or better in 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:** C or better in all of the following: ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **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:** C or better in all of the following: ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **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:** C or better in ECON 211, 212. **Three hours per week.**

403. MONETARY POLICY AND THE U.S. ECONOMY

3 hours credit

Introduction to how the Federal Reserve (the Fed) formulates and carries out monetary policy to achieve the twin goals of price stability and sustainable economic growth in order to expand and advance students' understanding of monetary policy in the economy. Coverage includes how policy is transmitted to the nation's economy through the banking system and financial markets, the domestic and international economic environment that influences monetary policymaking, and the implications of policy decisions for the domestic and international economies. Relevant macroeconomics and monetary theories to guide policy decisions are examined.

Prerequisites: C or better in ECON 211, 212. **Prerequisite/Corequisite:** ECON 305. **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:** C or better in all of the following: ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **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:** C or better in all of the following: ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **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. **Prerequisite:** C or better in ECON 211 (or ENVR 210), MATH 155, MATH 160 (or MATH 201). **Three hours per week.**

420. GAME THEORY

3 hours credit

Provides the tools and abilities to enhance aptitude for strategic thinking. Coverage includes sequential and simultaneous move games, mixed strategies, repeated games, etc. **Prerequisites:** C or better in ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **Three hours per week.**

425. SPORTS ECONOMICS

3 hours credit

Covers a broad range of issues in the economics of sports. Topics include the market structure of sports, labor relations between owners and players, public subsidies to professional sports franchises, competitive balance, tournament structure, discrimination, and behavioral analysis of decision making in sports. **Prerequisites:** C or better in ECON 211, ECON 212, MATH 155, MATH 160 (or 201). **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:** C or better in ECON 211, ECON 212, ECON 230, MATH 155, MATH 160 (or 201). **Three hours per week.**

435. THE ECONOMICS OF VOLUNTARY EXCHANGE

3 hours credit

Examines the effects of voluntary and informed transactions on efficient resource allocation and economic welfare. Topics include private property, government regulation, competition and consumer choice. **Prerequisites:** C or better in ECON 211, ECON 212. **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:** C or better in ECON 211, ECON 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. **Prerequisites:** C or better in ECON 211, ECON 212, MATH 155, MATH 160 (or 201), INFO 281. **Three hours per week.**

490. ECONOMICS INTERNSHIP

3 hours credit

Intern experience in economics. **Prerequisites:** Business economics major, placement approval and permission of the department chair, completion of ABLE Office administrative requirements, successful completion of BUAD 300. **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.**

601. BUSINESS ECONOMICS

3 hours credit

Introduces the fundamentals of microeconomic and macroeconomic theory and their application to the business environment. The key objective is to equip student with the basic skills, insights and decision-making tools that are necessary to make sound business decisions. In addition, understand and explain the forces that shape the external business environment, such as aggregate demand, economic fluctuations, inflation, interest rates, exchange rates, and the role that demand management policies play in the economy and their impact on firm performance. Topical areas include, but are not limited to, the following: demand analysis, determination of costs, pricing, profitability, commercial (trade) policy and international macroeconomic policy. **Prerequisites:** Admission to the M.B.A. program and ECON 211, 212 or 150 (or the equivalent) foundation courses with a grade of C or better. **Six hours per week for half a semester.**

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, EDCI, EDFN, EDDL, EDUC, ELED, EMAT, ISED, REED, SCED)

NOTE: Education courses may be repeated only once.

ECED

251. COLLABORATION AND COOPERATION IN EARLY CHILDHOOD COMMUNITIES

3 hours credit

Emphasizes family-school-community partnerships that promote children's ability to develop and learn. Examines family systems and their roles in the development of young children. Explores many of the challenges faced by today's diverse families and identifies collaboration and involvement practices to meet their needs. Focuses on ethical behavior and professional responsibilities as they relate to young children, their families and communities. Includes clinical experiences. **Prerequisites:** Declared early childhood education or double major. Must be taken the semester prior to applying to the Professional Teacher Education Program. **Corequisite:** ELED 202. **Three hours per week.**

352. INTEGRATED READING AND LANGUAGE ARTS BIRTH-AGE 4

4 hours credit

Introduces nurturing, teaching and engaging of children in language acquisition and literacy processes in homes and early childhood settings. Designed for early childhood education candidates. Content deals with language development, reading, writing, speaking, listening, visualizing and visually representing for infants, toddlers and young children. Theoretical frameworks focus on brain development and early literacy research. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Three hours per week with enhancement.**

356. PLAY AND CREATIVITY IN EARLY CHILDHOOD EDUCATION

4 hours credit

Emphasizes the value of play and creativity in young children ages birth through 8. Provides a means of experiencing how and why play is essential to children's social, cognitive, physical and emotional development. Explores the development of children's creativity and its relationship to play. Addresses the importance of high-quality and meaningful play and creative experience that are integral to developmentally appropriate practice in the early childhood classroom. Includes clinical experiences. **Prerequisites:** Admission to Professional Teacher Education Program. **Early Childhood Major Prerequisites:** 305/202, ELED 317, 397, ECED 352. **Double Major Prerequisites:** ELED 302, 320, 340, 350, 398. **Three hours per week with enhancement.**

366. INTEGRATING EARLY CHILDHOOD CURRICULUM

4 hours credit

Explores the goals and methods for integrating an early childhood curriculum to include social studies, mathematics, science and creative arts that focus on the needs of children birth through age 5. Develops skills related to understanding, planning, implementing and evaluating developmentally

appropriate, evidence-based curriculum for young children. Emphasis is on understanding young children's developmental stages and developing appropriate learning opportunities, interactions and environments that support each child. Includes clinical experiences. **Double Major Prerequisites:** Admission to Professional Teacher Education Program, ELED 302, 320, 340, 350, 398. **Three hours per week with enhancement.**

451. TEACHING MATHEMATICS IN EARLY CHILDHOOD CLASSROOMS

4 hours credit

Introduces and explores mathematics teaching as it relates to children birth through grade 3. Attention is given to developmentally appropriate instructional strategies that align with state and national standards. Focuses on pedagogical strategies that promote conceptual understandings and the use of materials that are theoretically and developmentally appropriate for the learning of mathematics. Emphasizes research, diversity, assessment, technology, literacy and mathematics integration. Includes clinical experiences. **Prerequisites:** Admission to Professional Teacher Education Program, ECED 356, ELED 302, 320, 350, 398. **Three hours per week with enhancement.**

452. TEACHING SCIENCE IN EARLY CHILDHOOD CLASSROOMS

4 hours credit

Introduces and explores the principles of science education with appropriate methodology and pedagogy that focus on the needs of children birth through grade 3. Attention is given to developmentally appropriate practices and inquiry teaching methods that align to national standards. Special emphasis is given to conceptual learning, cognitive experiences, assessment, research, technology and use of instructional materials that are related to the learning of young children theoretically, developmentally and practically. Includes clinical experiences. **Prerequisites:** Admission to Professional Teacher Education Program, ECED 356, ELED 302, 320, 350, 398. **Three hours per week with enhancement.**

453. TEACHING SOCIAL STUDIES IN EARLY CHILDHOOD CLASSROOMS

4 hours credit

Introduces different modes of disciplinary inquiry compatible with social studies instruction. Teacher candidates develop skills in understanding, planning, delivering and assessing instruction with a focus on sociocultural development and classroom management. Course objectives and activities are based on the College, Career and Civic Life four-stage model of inquiry from the National Council for the Social Studies and align with Maryland state standards for early childhood social studies. Includes clinical experiences. **Prerequisites:** Admission to Professional Teacher Education Program, ECED 356, ELED 302, 320, 350, 398, completion of General Education Group IIIB. **Three hours per week with enhancement.**

455. EARLY CHILDHOOD EDUCATION CLINICAL PRACTICE I

5 hours credit

Engages in full-time clinical experience with designated mentors in Professional Development School (PDS) sites, progressively assuming the lead-teacher role in the classroom while planning and co-teaching with the mentor. Direct supervision under the direction of a mentor teacher and University supervisor. One, eight-week, full-time, supervised clinical experience in a school. Clinical practice in pre-primary (pre-K or K) or primary (grades 1-3) grade levels. **Early Childhood Major Prerequisites:** ELED 410, 499, ECED 451, 452, 453, admission to Clinical Practice. **Double Major Prerequisites:** ELED 403, 405, 406, 410, admission to Clinical Practice. **Corequisite:** ELED 411. **Minimum of 30 hours per week for eight weeks. (P/F)**

456. EARLY CHILDHOOD EDUCATION CLINICAL PRACTICE II

5 hours credit

Engages in full-time clinical experience with designated mentors in Professional Development School (PDS) sites, progressively assuming the lead-teacher role in the classroom while planning and co-teaching with the mentor. Direct supervision under the direction of a mentor teacher and University supervisor. One, eight-week, full-time, supervised clinical experience in a school. Clinical practice in pre-primary (pre-K or K) or primary (grades 1-3) grade levels. **Prerequisites:** ELED 410, 499, ECED 451, 452, 453, 455, admission to Clinical Practice. **Corequisite:** ELED 411. **Minimum of 30 hours per week for eight weeks. (P/F)**

EDCI

700 FOUNDATIONS OF RESEARCH

3 hours credit

Provides the foundation for the research strand of the Ed.D. program. Includes an overview of quantitative and qualitative research design. Addresses basic concepts in measurement and qualitative analyses. Develops strategies for searching, understanding and applying research literature. Explores perspectives on research, its forms in various contexts, and how it contributes to knowledge and improved practice. Examines institutional requirements for conducting research. **Prerequisite:** Admission to Ed.D. program. **Three hours per week.**

702 STRATEGIES FOR INQUIRY I

3 hours credit

Prepares doctoral students to interpret, evaluate and design quantitative research. Explores major concepts and practices of quantitative research methodology, data collection, analysis and research design. Emphasizes the application of appropriate statistical concepts to practical questions in education policy and evaluation. Includes hands-on exploration of experimental and quasi-experimental design, data collection and analysis procedures, validity, generalizability, and ethics. **Prerequisite:** EDCI 700. **Three hours per week.**

704 STRATEGIES FOR INQUIRY II

3 hours credit

Prepares doctoral students to interpret, evaluate and design qualitative and mixed-methods research. Enhances the ability to select and use appropriate research methods. Examines major concepts and practices of qualitative research methodology, focusing primarily on interpretive and critical theoretical approaches. Includes hands-on exploration of qualitative study design, data collection and analysis procedures, validity, generalizability, and ethics. **Prerequisite:** EDCI 702. **Three hours per week.**

720 DIVERSITY IN EDUCATION

3 hours credit

Explores a global perspective on the richness of diversity in education. Examines important current and emerging education challenges among diverse subgroups, including the potential disconnects between school and homes and other social and cultural environments. Critiques major theoretical lenses on diversity. Enhances ability to identify and apply strategies to ensure educational equity for diverse learners. **Prerequisite:** Admission to Ed.D. program. **Three hours per week.**

722 PERSPECTIVES IN THEORY: LENSES FOR CRITICAL UNDERSTANDINGS OF EDUCATION

3 hours credit

Advances study of theoretical, cultural and social perspectives on education. Examines teaching as situated within particular social contexts and as affected by cultural structures. School-based observation proceeds in concert with theoretical

cal study to provide empirical grounding, scrutiny and synthesis of perspectives. **Prerequisite:** Admission to Ed.D. program. **Three hours per week.**

724 SOCIAL CONTEXT OF CURRICULUM
3 hours credit

Investigates major schools of thought through historical and contemporary lenses. Examines social, political and philosophical dimensions of education and their impact on instruction, curriculum design and evaluation. Curriculum inquiry and theoretical analysis provide avenues for discussion of crucial themes. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

728 UNDERSTANDING INSTRUCTION AND ASSESSMENT TO IMPROVE LEARNING
3 hours credit

Explores foundational psychological concepts through current research on teaching practices. Examines the intersection of neuroscience and educational practices. Investigates contrasting theories of learning and their utility for explaining and addressing educational problems. Provides advanced study of assessment for the reflective practitioner to collect, critique and utilize a broad range of assessment data to improve instruction and learning. Builds understandings of the diverse types of assessment data that can inform and support differentiated learning. Develops critical reflection on potential biases and benefits of various assessment tools and how those tools can be best used to make effective instructional decisions. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

730 LEARNING, INSTRUCTION AND TECHNOLOGY
3 hours credit

Explores the utility of technological products, processes and innovations for curriculum design, development, practice and assessment. Emphasizes effective instructional design and teaching methods when utilizing technology as a medium for learning. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

740 ORAL DISCOURSE, COGNITION AND DIVERSITY
3 hours credit

Examines cultural/social, historical, theoretical and cognitive perspectives on oral language use in societies. Investigates how oral discourse patterns in cultures/homes and in schools shape cognition and ways of communicating and understanding. Develops knowledge of the ways diverse oral discourse patterns and cognitive structures improve all students' literacy and learning when adaptations are made in classrooms. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

742 WRITING: THEORY, RESEARCH AND PRACTICE
3 hours credit

Develops in-depth knowledge of critical assumptions about writing and writing pedagogy from the perspectives of social, cultural and cognitive processes. Explores connections between writing and other communicative and literate processes. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

744 COMPREHENSION AND STRATEGIC LEARNING: THEORY, RESEARCH AND PRACTICE
3 hours credit

Examines research on comprehension and its instruction at all levels of development. Develops knowledge about comprehension, metacognition and strategic behavior, and focuses on applying that knowledge to enhance student learning. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

746 DIVERSITY, LITERATURE AND NEW MEDIA ACROSS THE CURRICULUM

3 hours credit

Examines theoretical and practical understandings of culturally responsive literacy practices, with an emphasis on expanding knowledge of children's and young adult literature and informational texts. Examines the potential use of both traditional and new media formats across the curriculum. Develops and applies understanding and appreciation of multicultural, multilingual and diverse literature. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

748 LANGUAGE, LITERACY AND REPRESENTATION AS TOOLS FOR INQUIRY ACROSS THE CONTENT AREAS

3 hours credit

Investigates speaking, listening, reading, writing, viewing and visually representing as tools to demonstrate thinking and learning across the curriculum. Provides strategies for teachers to encourage higher order thinking in content learning in P-12 classrooms through student-as-researcher models of inquiry-based learning. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

750 LITERACY POLICY AND PRACTICE ANALYSIS
3 hours credit

Examines the history of literacy paradigm shifts that influence global, national, state and local policies. Critically evaluates policy impact on literacy practices in schools and classrooms. Develops recommendations that empower educators to make instructional decisions that meet the literacy needs of diverse students in contemporary contexts. **Prerequisites:** Admission to Ed.D. program, EDCI 700. **Three hours per week.**

790. DOCTORAL INDEPENDENT STUDY
1-3 hours credit

Provides supervised experiences needed for doctoral students to prepare for dissertation research and/or career advancement in the field of higher education. **Prerequisites:** Admission to the Ed.D. program, permission of the Ed.D. director. **One to three hours per week.**

792. DOCTORAL INTERNSHIP IN EDUCATION
3 hours credit

Provides a field experience where theory and practice enrich and inform each other under the direction of a faculty supervisor and (where appropriate) cooperating professional organization. Provides opportunities to use practical research and applied theories as tools for change through on-the-job assignments, activities, guided experiences and observations. **Prerequisites:** Admission to the Ed.D. program, permission of the Ed.D. director. **Three hours per week.**

793. ADVANCED METHODS IN SURVEY RESEARCH
3 hours credit

An intensive exploration of survey research methods in the field of literacy. Develops a doctoral students' knowledge and application of survey research approaches, including designing and adapting a survey for a target population of interest. The culminated project is a survey instrument and pilot project development report to be conducted in EDCI 801. **Prerequisite:** Admission to the doctoral program and permission of the doctoral chair. **Three hours per week.**

794. ADVANCED METHODS AND QUALITATIVE RESEARCH
3 hours credit

An intensive exploration of issues and practices in qualitative research in the field of literacy education. Develops doctoral students' knowledge and application of multiple qualitative research approaches. Drawing upon foundational literature and empirical studies, emphasizes applied data gathering and analysis as informed by theoretical base. The culmination

projects is a draft proposal for a pilot project to be conducted in EDCI 801. **Prerequisite:** Admission to the doctoral program and permission of the doctoral chair. **Three hours per week.**

800. RESEARCH SEMINAR I: WRITING THE LITERATURE REVIEW

3 hours credit

Guided research seminar for conducting a pilot project that will lead to a dissertation proposal. Established as a Literacy Scholar Community (LSC) in which students are mentored in authentic research and academic writing discourses as they explore a significant literacy issue from their community of practice. **Prerequisites:** Admission to Ed.D. program, permission of Ed.D. director.

801. RESEARCH SEMINAR II: CONDUCTING A PILOT PROJECT

3 hours credit

Guided research seminar for completion of a comprehensive literature review that will lead to a pilot project and dissertation proposal. Established as a Literacy Scholar Community (LSC) in which students are mentored in authentic research and academic writing discourses as they explore a significant literacy issue from their community of practice. **Prerequisites:** Admission to Ed.D. program, permission of Ed.D. director, EDCI 801.

805 DISSERTATION I

3 hours credit

Development of proposal for dissertation research and submission of research protocol in Institutional Review Board for approval. **Prerequisites:** Admission to Ed.D. program, advancement to candidacy. **Three hours per week. (P/F)**

810 DISSERTATION II

6 hours credit

Dissertation research. **Prerequisites:** Admission to Ed.D. program, advancement to candidacy, EDCI 805. **Six hours per week. (P/F)**

815 DISSERTATION III

1-3 hours credit

Additional dissertation enrollment following the first nine hours until the semester of defense. Should a student not complete the dissertation work required during EDCI 810, then enrollment in this course is required each semester until completion. **Prerequisites:** Admission to Ed.D. program, advancement to candidacy, EDCI 805, EDCI 810. **One-three hours per week (P/F)**

820 DISSERTATION IV

3 hours credit

Completing research, production of the dissertation and defense. The student must enroll for three credits in the semester of the dissertation defense. **Prerequisites:** Admission to Ed.D. program, advancement to candidacy, EDCI 805, EDCI 810. **Three hours per week. (P/F)**

EDFN

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. May not receive credit for both EDUC 210 and EDFN 210. May not receive credit for both EDUC 305 and either EDUC 210 or EDFN 210. **Three hours per week.**

EDLD

510. EDUCATIONAL LEADERSHIP AND TECHNOLOGY

3 hours credit

Enables school administrators to utilize technology to increase student achievement as well as to understand the effective use of educational technology in the classroom. Students investigate the issues that surround the use of technology in an educational setting, as well as develop the skills and understandings needed to meet the national Technology Standards for Administrators. **Prerequisites:** Basic computer skills (file management, word processing, e-mail, Internet searches). **Three hours per week.**

512. EDUCATIONAL RESEARCH AND EDUCATIONAL LEADERSHIP

3 hours credit

Examination of the use of evaluation research as a basis for decisions about educational programs, products and goals with the aim of providing the educational leader with valid and reliable evidence upon which to base the program decisions. **Three hours per week.**

514. ALIGNING CURRICULUM, INSTRUCTION AND ASSESSMENT

3 hours credit

Equips candidates with skills to become educational leaders who have the knowledge and ability to promote the success of all students by providing an effective instructional program, monitoring the alignment of curriculum, instruction and assessment, and applying best practices to student learning. **Three hours per week.**

516. P-12 SCHOOL ADMINISTRATION

3 hours credit

Analysis of the responsibilities of the school administrator, including procedures for staff organization, professional development, curriculum development, scheduling, pupil personnel services and other facets of school administration. **Prerequisites:** EDLD 510, 512. **Three hours per week.**

517. SUPERVISION TO IMPROVE INSTRUCTION

3 hours credit

Designed to equip school administrators with the competencies and skills to improve instructional practices through the purposeful observation and evaluation of teachers and other school personnel resulting in the design of comprehensive professional growth plans and effective professional development strategies. **Prerequisite:** EDLD 510, 512. **Three hours per week.**

550. LEADERSHIP AND CHANGE

3 hours credit

Focuses on the need for educational leaders to develop the knowledge and ability to promote the success of all students by facilitating the development, articulation, implementation and stewardship of a school vision. Emphasis is placed upon the use of collaboration to develop a culture of learning focusing upon the change process and continuous improvement. **Prerequisite:** EDLD 516. **Three hours per week.**

552. DIVERSITY AND GROUP DYNAMICS IN SCHOOL ADMINISTRATION

3 hours credit

Content consists of the study of diversity and group development within educational settings. An emphasis is placed on diverse communities, collaboration, decision making and communication theory, and the development of programs that address student diversity, community relations and the media. **Prerequisites:** EDLD 516, 517. **Three hours per week.**

555. PUBLIC SCHOOL FISCAL AND HUMAN RESOURCE MANAGEMENT

3 hours credit

Focuses on the need for educational leaders to use their knowledge of organizational theory to create a learning environment that promotes the success of all students. Emphasis is placed on the allocation of resources such as personnel, facilities and technology to create an effective learning environment. Students investigate management issues dealing with the alignment of fiscal and human resource functions to the success of all students. **Prerequisites:** EDLD 516, 517, 552. **Three hours per week.**

566. EDUCATIONAL LEADERSHIP INTERNSHIP / ISSUES ANALYSIS

3 hours credit

Provides significant opportunities for candidates to synthesize and apply the knowledge and practice of effective school leaders in educational settings. Each candidate selects an issue to analyze and develops appropriate strategies throughout the internship to improve student learning. Must be taken two successive semesters to successfully complete internship requirements. Repeatable for a maximum of six credits. **Prerequisites:** Completion of all courses in the M.Ed. in School Administration and Supervision Program sequence or by permission of the instructor. **Nine hours internship per week.**

EDUC

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.**

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)**

470. PRACTICUM IN MIDDLE SCHOOL SCIENCE EDUCATION

3 hours credit

Provides theoretical background and practical experience with current trends and issues in middle school science education. Consists of a distributed practicum in which candidates take part in a series of encounters in middle school classrooms, schools and/or afterschool programs requiring at least three hours per week in field placements. Not all of those encounters are necessarily in the same placement, but all are under the mentorship of a middle school science teacher. In conjunction with the practical encounters, candidates read appropriate background literature relating to middle school science instruction and complete assignments that combine ideas from reflections from their practical experiences, readings and additional resources located by the candidate. Additional 1.5 hours per week meeting with the instructor may be scheduled as needed. **Prerequisites:** EDFN 210, EDUC 304, ELED 312, 15 credits of science from at least three science department prefixes and junior standing, admission to Professional Teacher Education Program (PTEP) or permission of instructor. Candidates not accepted into the PTEP have to demonstrate readiness to work directly with middle school candidates in terms of knowledge, skills and dispositions, and may have to meet other requirements

imposed by the school system for individuals working with children in the school. **Four hours per week.**

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. Gain experience in the use, interpretation and application of research to solve organizational and instructional problems. Must be taken within the first 12 hours of M.Ed. program. **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. **Prerequisite:** Admission to graduate study. **Three hours per week.**

504. DIVERSITY IN A DEMOCRACY

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. Must be taken within the first 12 hours of M.Ed. program. **Prerequisite:** Admission to graduate study. **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 Core. **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 Core. **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 Core. **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.**

515. EASTERN SHORE WRITING PROJECT SUMMER INSTITUTE**3-6 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. **Three or six hours per week.**

527. SPECIAL TOPICS IN MATHEMATICAL PEDAGOGY**3 hours credit**

Examines current trends and issues in elementary/early childhood mathematics pedagogy. Focuses on helping educators understand and facilitate mandated and non-mandated curricular changes that have the real potential to improve the teaching and learning of mathematics at the elementary and early childhood levels. Focuses on research-based teaching/learning processes that facilitate conceptual and critical understandings of mathematics as well as the required mathematical understandings that teachers need in order to teach in conceptual ways. **Prerequisite:** Admission to graduate study. **Three hours per week.**

531. CREATIVITY AND THE ARTS IN EDUCATION**3 hours credit**

The arts are a vital element in education. Numerous studies from the past decade suggest that the arts increase student achievement. Explore those studies and the understanding of the brain research behind creativity and arts integration in education through readings, discussion and analyses of multiple texts. **Prerequisite:** Admission to graduate study. **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.**

545. LEARNING, INSTRUCTION AND ASSESSMENT IN THE SCHOOLS**3 hours credit**

Identification of classroom problems and issues related to and involving instruction, learning and student assessment; 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; and the exploration of the relationship between assessment and instruction. Must be taken within the first 12 hours of M.Ed. program. **Prerequisite:** Admission to graduate study. **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.**

558. 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 for those who already hold certification in one area. Interns will observe teaching, participate in work with children, participate in planning sessions, teach and participate in all activities for which regularly employed teachers are responsible. **Prerequisites:** Teaching certification, all requirements for the additional certification area sought, at least six graduate credits at SU, graduate GPA 3.0 or higher, permission of M.Ed program coordinator. **Three hours per week.**

559. THE HOLOCAUST AND SOCIAL JUSTICE ACROSS THE DISCIPLINES**3 hours credit**

Educators from all disciplines engage in interdisciplinary examination of methods of teaching the Holocaust and social justice issues. Emphasis is placed on pedagogical choices when teaching social justice topics. Creative and writing-intensive strategies are emphasized. **Three hours per week.**

560. COLLEGE TEACHING**3 hours credit**

Research-based investigation of theories and practices involved in teaching in institutions of higher education. Intended for graduate students aspiring to college teaching or academic leadership positions. Examines the roles and responsibilities of college instructors with emphasis on practical applications in college and university settings. **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 interests. **Three hours per week.**

562. COLLEGE STUDENT DEVELOPMENT THEORY

3 hours credit

Explores college student development, utilizing the approach of practice to theory to practice. Students conceptualize how college students grow and develop during the critical college years. Students are challenged to hypothesize and theorize en route to creating developmentally based practical applications. The process results in the practitioner's ability to consider developmental implications for all student interactions. **Prerequisite:** EDUC 502. **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.**

564. HISTORY OF AMERICAN HIGHER EDUCATION

3 hours credit

Introduction to the history of higher education in the United States for emerging and established higher education professionals. Examines the ways in which the current structures and functions of the modern university have been informed by events of the past. **Prerequisite:** Admission to graduate studies. **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

Examines selected current issues in educational technology. Focuses on the impact of technology on schools and global society, safety issues, the digital divide and the impact of distance learning. Introduces a framework for teacher knowledge of technology integration. Research topics and prepare multimedia presentations. Must be taken within the first 12 hours of M.Ed. program. **Prerequisites:** Admission to graduate study and basic computer skills (file management, word processing, Web-based communication and researching skills). **Three hours per week.**

571. WEB-BASED TEACHING AND LEARNING

3 hours credit

Examines the use of emerging Web-based technologies that enhance learning environments. Develops pedagogy to use Web-based tools that promote collaborative projects, global correspondence with teachers and students, gathering and analyzing data, and conducting research in K-16 learning environments. Explores lesson design for integrating Web-based technology into classrooms. **Prerequisites:** Admission to graduate study, EDUC 570 and basic computer skills (file management, word processing, Web-based communication and researching skills). **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.**

585. TECHNOLOGY TOOLS FOR TEACHING AND LEARNING

3 hours credit

Examines the use of graphics, productivity tools and interactive technologies to enhance learning. Develops ability to plan, organize and design products that effectively communicate information and challenges the use of specific tools to solve problems. Uses technology applications to design and develop interactive learning environments to support authentic, constructivist, problem-based learning for all learners. Critically evaluates tools appropriate for learners. **Prerequisites:** Admission to graduate study, EDUC 570 and basic computer skills (file management, word processing, Web development, Web-based communication and researching skills). **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 school. 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.**

620. LEGAL ISSUES IN HIGHER EDUCATION**3 hours credit**

Introduction to important legal concepts and case law that influence decision making in post-secondary educational contexts. Topics include a general overview of legal concepts and case law (mainly federal case law) from around the country on the following issues: college governance, faculty freedom and tenure, student rights and responsibilities, liability, disability access, and athletics. **Prerequisite:** Admission to graduate study. **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.**

665. 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 audio, video, graphics, interactive PowerPoint and Web 2.0 multimedia tools. Examines principles of constructivism, lesson design for project-based learning and assessment strategies. **Prerequisite:** Intermediate computer skills (file management, word processing, Internet searching, PowerPoint), EDUC 570, 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. LEADERSHIP AND 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, professional development standards and use of technology to address goals for school improvement. Examines strategies for providing effective professional development and creates professional development plans for the school setting. **Prerequisite:** EDUC 570, any two additional graduate-level technology 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.

ELED**201. INTRODUCTION TO TEACHING****1 hour credit**

Provides a comprehensive orientation to the teaching profession. The theoretical content and field-based experience help candidates gain an informed overview of the dimensions of public education in the United States. Examine and critique historical, philosophical and intellectual foundations of the American education system that includes school organization and governance, ethical and legal matters, social roles, curriculum, major trends, and current educational issues. Develop a broad understanding of teaching certification and licensure and reflect on personal interests in a teaching career. **One hour per week.**

202. TECHNOLOGY IN EDUCATION**4 hours credit**

Emphasizes the role of technology for teaching and learning in pre-K-6 classrooms. Provides experiences with computer-based and mobile applications. Explores traditional and

emerging technologies that enhance the learning experience for students, including digital images, video, Internet and interactive technologies as a means of developing meaningful learning experiences. Addresses Maryland state technology standards for teachers as well as national technology standards for teachers and students. Includes clinical experiences. **Prerequisites:** Declared elementary education, early childhood or double major. Must be taken during semester prior to applying to the Professional Teacher Education Program. **Early Childhood and Double Major Corequisite:** ECED 251. **Three hours per week with enhancement.**

302. INTEGRATED READING AND LANGUAGE ARTS GRADES K-3

4 hours credit

Introduces the teaching of language acquisition and literacy processes for education candidates. Includes language development, word recognition, vocabulary and comprehension through the integrated language arts of reading, writing, speaking, listening, visualizing and visually representing. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Early Childhood and Double Major Prerequisites:** ECED 352, ELED 305/202, 317, 397. **Three hours per week with enhancement.**

305. LEARNING AND ASSESSMENT FOR DIVERSE CLASSROOMS

4 hours credit

Examines concepts, principles, theories and research related to the teaching and learning of children in grades pre-K-6. Focuses on research as it relates to learning theories, cognitive processes, motivation and learner differences. Explores formative and summative assessment strategies to support, verify and document student learning and improve teacher performance. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Three hours per week with enhancement.**

317. INTEGRATING AESTHETIC EXPERIENCES INTO TEACHING AND LEARNING

4 hours credit

Introduces aesthetic educational theory as it relates to the aims, curriculum, organization and teaching/learning of the arts (music, drama, dance and visual arts). Presents a basic working knowledge of the arts and the pedagogical strategies used to implement and integrate the arts into and through the pre-K-6 curriculum. Emphasis is placed on state and national standards and curricular integration. A focus is placed on theories that ground creative arts instruction, research-based benefits that are shown to improve academic achievement, and pedagogical strategies that focus on hands-on learning and creativity development. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Three hours per week with enhancement.**

320. TEACHING DIVERSE LEARNERS

4 hours credit

Introduces core concepts and contemporary perspectives in the field of special education. Explores important topics that include the history of special education, current legislation, personnel and procedures, collaboration with parents/guardians and service providers, and needs of diverse learners, including English Language Learners and those who are gifted and talented. Identifies, applies and critiques effective research-based instructional approaches to teaching learners who have different needs. Incorporates realities of inclusive practices and provides opportunities for candidates to triangulate and reflectively apply course content through clinical experiences. Emphasizes the development of a professional disposition that values human differences. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Early Childhood and Double Major Prerequisites:** ECED 352, ELED 305/202, 317, 397. **Elementary Major Prerequisites:**

ELED 302, 305/202, 317, 397. **Three hours per week with enhancement.**

330. INTEGRATED READING AND LANGUAGE ARTS GRADES 3-6

4 hours credit

Introduces the teaching of language and literacy processes for grades 3-6. Designed for elementary teacher education candidates. Covers content related to continued development of language and vocabulary, and comprehension through the integrated language arts of reading, writing, speaking, listening, visualizing and visually representing. Apply knowledge of reading and writing strategies, as well as oral language development, to design and implement lessons and teaching activities. Analyze and respond to classroom situations considering different aspects of diversity and how it is framed within the schooling system. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Elementary Major Prerequisites:** ELED 302, 305/202, 317, 397. **Double Major Prerequisites:** ELED 302, 320, 340, 350, 398. **Three hours per week with enhancement.**

340. BUILDING CLASSROOM COMMUNITY

4 hours credit

Examines philosophical, theoretical and practical models of classroom management to develop positive learning communities and manage student behavior. Includes assessing stages of group development, analyzing use of classroom space, establishing rules and procedures, communicating effectively with stakeholders, monitoring dimensions of wellness and resiliency, and applying best strategies to create a classroom management plan. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Elementary Education Prerequisites:** ELED 302, 305/202, 317, 397. **Double Major Prerequisites:** ECED 352, ELED 305/202, 317, 397. **Three hours per week with enhancement.**

350. LITERATURE FOR CHILDREN

4 hours credit

Emphasizes knowledge necessary for an appreciation and understanding of children's literature, its historical development, major genres in the field, contemporary issues, debates about children and literature written for them, and the literacy terms relevant to the study of literature written for children. In addition to reading critically acclaimed works of both fiction and nonfiction, examine poetry, folklore and digital stories and the relationship between graphic narrative and text. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Early Childhood and Double Major Prerequisites:** ECED 352, ELED 305/202, 317, 397. **Elementary Major Prerequisites:** ELED 302, 305/202, 317, 397. **Three hours per week with enhancement.**

390. STUDIES IN ELEMENTARY EDUCATION

1-4 hours credit

Focused study of a particular topic, trend and/or issue relevant to elementary education. May be taken twice under different course titles. **Prerequisite:** Permission of the instructor. **Three hours per week.**

396. APPLIED TEACHING STUDY

3 hours credit

Provides a comprehensive study of the expectations of the Educative Teacher Performance Assessment (edTPA). Engage in formative experiences that model and support practical teaching skills and professional dispositions in preparation for demonstration and assessment of readiness to teach. Course is offered as an elective. May be taken twice for credit. **Prerequisites:** ECED 352; ELED 202, 302, 305, 317, 397. **Three hours per week.**

397. DIVERSITY AND THE SELF**1 hour credit**

Reviews theories and aspects of cultural competence most relevant to teaching in diverse classrooms. Explores the ideals of freedom, democracy, justice, equality, equity and human dignity from the perspective of the individual. Provides experiences that heighten candidates' diversity awareness and sensitivity. Examines different kinds of beliefs, attitudes, values and practices that foster cultural and linguistic competence at the individual level. The instructor may use different medium to study the topic. **One hour per week.**

398. DIVERSITY AND THE FAMILY**1 hour credit**

Reviews theories and aspects of cultural competence most relevant to teaching in diverse classrooms. Explores the ideals of freedom, democracy, justice, equality, equity and human dignity from the perspective of the family. Provides experiences that heighten candidates' diversity awareness and sensitivity. Examines different beliefs, attitudes, values and practices that foster cultural and linguistic competence at the family level. The instructor may use different medium to study the topic. **One hour per week.**

403. TEACHING SCIENCE IN ELEMENTARY CLASSROOMS**4 hours credit**

Introduces dimensions of science instruction that facilitate student learning in elementary schools. Attention is given to the skills necessary for placing learners in the position of investigator, planning and teaching inquiry-based lessons, and conducting formative and summative assessment. Emphasis is on aligning to state and national science education standards and initiatives, such as STEM education and environmental literacy. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Elementary Major Prerequisites:** ELED 320, 330, 340, 350, 398. **Double Major Prerequisites:** ECED 356, 366, ELED 330, 499. **Three hours per week with enhancement.**

405. TEACHING SOCIAL STUDIES IN ELEMENTARY CLASSROOMS**4 hours credit**

Introduces discipline-based inquiry for promoting democratic citizenship through the social studies. Focuses on building content knowledge and instructional strategies in history, geography, political science, cultural studies and economics. Course objectives and activities are based on the College, Career and Civic Life four-stage model of inquiry from the National Council for the Social Studies and align with Maryland state standards for elementary social studies. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Elementary Major Prerequisites:** ELED 320, 330, 340, 350, 398. **Double Major Prerequisites:** ECED 356, 366, ELED 330, 499, completion of General Education Group IIIB. **Three hours per week with enhancement.**

406. TEACHING MATHEMATICS IN ELEMENTARY CLASSROOMS**4 hours credit**

Emphasizes the teaching of mathematics to students in grades 1-6. Focuses on developmentally appropriate instructional strategies that align to national standards and promote conceptual understandings. Attention is placed on the teaching and learning of mathematics as it relates to research, theory, pedagogy, content, diversity, assessment, technology, literacy and integration. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Elementary Major Prerequisites:** ELED 320, 330, 340, 350, 398. **Double Major Prerequisites:** ECED 356, 366, ELED 330, 499. **Three hours per week with enhancement.**

410. LITERACY ASSESSMENT AND INTERVENTION**4 hours credit**

Introduces and applies formal and informal literacy assessment tools that can be used to make appropriate instructional decisions for learner differences. Includes information and practices in administering research-based intervention strategies for early literacy, phonemic awareness, phonics, vocabulary, fluency, comprehension and writing. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Early Childhood Major Prerequisites:** ECED 356, ELED 302, 320, 350, 398. **Elementary Major Prerequisites:** ELED 320, 330, 340, 350, 398. **Double Major Prerequisites:** ECED 356, 366, ELED 330, 499. **Three hours per week with enhancement.**

411. CLINICAL PRACTICE SEMINAR**4 hours credit**

Complements student teaching internship for elementary education/early childhood/double education majors. Integrates theory and practice, facilitates the process of learning to reflect upon one's teaching, and provides support for candidates making the transition from teacher candidate to professional educator. Meets at school sites on a schedule to be announced as part of SU's Professional Development School partnership. Includes clinical experiences. **Prerequisite:** Admission to Professional Teacher Education Program. **Early Childhood Prerequisites:** ECED 451, 452, 453, ELED 410, 499. **Elementary Major Prerequisites:** ELED 403, 405, 406, 410, 499. **Double Major Prerequisites:** ELED 404, 405, 406, 410, 499. **Early Childhood Major Corequisites:** ECED 455, 456. **Elementary Major Corequisites:** ELED 421, 422. **Double Major Corequisites:** ECED 455, ELED 422, 423. **Three hours per week with enhancement.**

419. TEACHING MUSIC AND READING IN THE ELEMENTARY SCHOOL**4 hours credit**

Techniques for teaching music and reading content in pre-school 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. **Three hours lecture and three hours field experience per week.**

421. ELEMENTARY EDUCATION CLINICAL PRACTICE I**5 hours credit**

Engages in full-time clinical experience with designated mentors in Professional Development School (PDS) sites, progressively assuming the lead-teacher role in the classroom while planning and co-teaching with the mentor. Direct supervision under the direction of a mentor teacher and University supervisor. One, eight-week, full-time, supervised clinical experience in a school. Clinical Practice in lower (grades 1-3) or upper elementary (grades 4-6) grade levels. **Prerequisites:** ELED 403, 405, 406, 410, 499, admission to Clinical Practice. **Corequisite:** ELED 411. **Minimum of 30 hours per week for eight weeks. (P/F)**

422. ELEMENTARY EDUCATION CLINICAL PRACTICE II**5 hours credit**

Engages in full-time clinical experience with designated mentors in Professional Development School (PDS) sites, progressively assuming the lead-teacher role in the classroom while planning and co-teaching with the mentor. Direct supervision under the direction of a mentor teacher and University supervisor. One, eight-week, full-time, supervised clinical experience in a school. Clinical Practice in lower (grades 1-3) or upper elementary (grades 4-6) grade levels. **Prerequisites:** ELED 403, 405, 406, 410, 421, 499, admission to Clinical Practice. **Corequisite:** ELED 411. **Minimum of 30 hours per week for eight weeks. (P/F)**

**423. DOUBLE EDUCATION MAJOR CLINICAL PRACTICE
2 hours credit**

Engages in full-time clinical experience with designated mentors in Professional Development School (PDS) sites, progressively assuming the lead-teacher role in the classroom while planning and co-teaching with the mentor. Direct supervision under direction of a mentor teacher and University supervisor. One, three-week, full-time supervised clinical experience in a school. Clinical practice in upper elementary (grades 4-6) grade level. **Prerequisites:** ELED 403, 405, 406, 410, admission to Clinical Practice. **Corequisite:** ELED 411. **Minimum of 30 hours per week for three weeks. (P/F)**

**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)**

**499. DIVERSITY AND THE COMMUNITY
1 hour credit**

Reviews theories and aspects of cultural competence most relevant to teaching in diverse classrooms. Explores the ideals of freedom, democracy, justice, equality, equity and human dignity from the perspective of the community. Provides experiences that heighten candidates' diversity awareness and sensitivity. Examines different kinds of beliefs, attitudes, values and practices that foster cultural and linguistic competence at the Community level. The instructor may use different medium to study the topic. **One hour per week.**

EMAT

**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, class work, student projects, assignments and exams. **Prerequisite:** Admission to M.A.T. program. **Three hours per week.**

**502. FOUNDATIONS OF EDUCATION IN A DIVERSE
AND DEMOCRATIC SOCIETY**

3 hours credit

A comprehensive overview of the foundation of education in a diverse and democratic society. It is an interdisciplinary approach, incorporating the social, philosophical, economic, political, historical and curricular foundations to provide a clear understanding of the teaching profession. Special attention is given to cultural problems and issues that influence opportunities and performance in educational institutions, including controversies confronting American education today. Field experiences are required. **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.**

**506. THE INCLUSIVE CLASSROOM
3 hours credit**

Learn the fundamentals of inclusive teaching. Study the history of special education, legal and ethical foundations for individuals with disabilities; accommodations; modifications of students with high, low, multiple incidence disabilities; effective teaching/ management skills; and an overview of specific strategies that promote learning within the content areas. Identify specific problems in content areas and learn how to effectively address them. Learn how to create assessments that provide immediate feedback in a variety of formats. Field experiences in inclusive content classrooms are required. **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, eight-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:** EMAT 501, 503, 505, 506, 512, 515 and required methods courses. **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:** EMAT 501, 503, 505, 506, 512, 515 and required methods courses. **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.**

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

3 hours credit

Techniques for teaching music and reading content in pre-school 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.**

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 of 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 writing—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 liter-

acy 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 instructions 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.**

537. EDUCATIONAL RESEARCH

3 hours credit

Introduction to quantitative and qualitative methods of inquiry as they apply to the needs of teacher-researchers. Attention is given to reading, analyzing and interpreting scholarly research to solve instructional problems. Includes the design of an action research project that addresses an area of current concern in the field of P-12 education. **Prerequisite:** Admission to M.A.T. program. **Three hours per week.**

538. TECHNOLOGY IN EDUCATION

3 hours credit

Examines educational technology and its current and potential impact on schools. Provides an introduction to the role of technology in the teaching and learning process as well as how to the use of technology can enhance teacher productivity and professional development. Examines current issues in the use of educational technology, the impact of technology on society and techniques for integrating technology into the classroom. Examines Internet, audio, video and graphic technologies, as well as tools for collecting and analyzing student data. **Prerequisite:** Admission to M.A.T. program. **Three hours per week.**

539. INSTRUCTION AND ASSESSMENT FOR STUDENT LEARNING

3 hours credit

Focuses on the appropriate selection, construction, adminis-

tration and use of effective educational assessment, particularly as it impacts student learning. Using the curriculum-instruction-assessment cycle, explores these important connections to better understand roles and responsibilities as classroom teachers in the assessment process. **Prerequisite:** Admission to M.A.T. program. **Three hours per week.**

540. TEACHING LANGUAGE IN MIDDLE AND HIGH SCHOOL ENGLISH CLASSROOMS

3 hours credit

Study of materials and methods for teaching language arts in middle and high schools, with attention to aspects of language study for native speakers of standard English, speakers of non-standard English and English language learners. Various models and strategies for teaching language arts at this level are demonstrated and analyzed. Field experience concurrent with EMAT 528. **Prerequisite:** EMAT 526. **Co-requisite:** EMAT 528. **Three hours per week. (fall semester only)**

ISED

208. GREAT INVENTIONS

3 hours credit

Explore at least eight inventions that have significantly influenced modern societies and their potential use as the focus of K-8 curricula. Analyze ways in which the technologies resulting from various inventions function by applying disciplinary core ideas from STEM fields at a conceptual level, especially in physical sciences, as well as the practices in STEM fields that supported the development of the technologies. The specific inventions that will be the focus of the course will change. **Prerequisite:** C or better in ELED 304, MATH 130. **Three hours per week.**

209. FIELD EXPERIENCE IN STEM EDUCATION

1-3 hours credit

Take part in field experience focused on gaining understanding and facility with the Maryland STEM Standards of Practice. Takes place under the combined supervision of a faculty member and an on-site STEM mentor who can support the development of skills in STEM education. Take part in STEM education experiences, including the development and presentation of STEM instruction activities appropriate to the setting. **Document three hours in the field placement per week for each credit hour.**

390. STUDIES IN INTEGRATED STEM EDUCATION

1-4 hours credit

Focused study of a particular topic, trend and/or issue relevant to integrated STEM education. May be taken twice under different course titles. **Variable hours per week.**

REED

500. LITERACY: HISTORY AND THEORY

3 hours credit

Develop knowledge and understanding of historical perspectives and major literacy theories, research on the development of reading/literacy, and becoming a member of a professional literacy community. **Three hours per week.**

510. WRITING: PROCESSES AND PRODUCTS

3 hours credit

Develops perspectives on writing instruction in grades K-12. Topics include theory and development, instructional processes, methods, analysis of products, writing to learn disciplinary content, and writing in response to texts. For school personnel seeking a deeper understanding of writing and its relationship with other literacies. Provides a foundation for the M.Ed. Reading Specialist certification candidates. **Prerequisite:** Admission to graduate study. **Three hours per week.**

515. EMERGENT LITERACIES

3 hours credit

Emphasizes current theories and research on language and literacy development, including oral and written language practices pre-K-3. Emphasizes instructional strategies and materials for emergent literates and development of oral language, including linguistic variation. Content focuses on phonemic awareness, phonics, fluency, vocabulary and comprehension. **Three hours per week.**

516. ELEMENTARY LITERACIES

3 hours credit

Develop a wide range of theoretical and applied perspectives on multi-model literacy instruction, development and motivation, methods, materials, contexts, and strategies for students in grades 3-6. Content focuses on phonemic awareness, phonics, fluency, vocabulary, comprehension and critical thinking. **Three hours per week.**

517. ADOLESCENT LITERACIES

3 hours credit

Develop a wide range of theoretical and applied perspectives of adolescent literacy learners. Topics include motivation and engagement, multi-modal literacies, reading and writing in the disciplines, and oral language discourse. **Three hours per week.**

518. DIVERSITY AND LITERACY

3 hours credit

Develop knowledge of the importance of linguistic, sociocultural and socioeconomic diversity of students. Examine theoretical perspectives and ways to maximize the rich potential of all learners across home, school and community contexts. **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. LITERACY ASSESSMENTS

3 hours credit

Examines models for assessment and a wide range of reading, writing and oral language and spelling assessment tools for emergent literates and students, pre-K through grade 12. Topics include data collection and analysis, and planning for instruction based upon assessment results. Quantitative and qualitative measures are explored. **Prerequisites:** REED 500, 515, 516, 517. **Three hours per week.**

611. LITERACY PRACTICUM I

3 hours credit

Emphasizes application of knowledge and expertise in planning effective individualized literacy instruction for students through an ongoing cycle of assessing, planning, teaching and debriefing. Videotaping, peer coaching and conferencing are used to enhance candidates professional learning. **Prerequisites:** REED 518, 610. **Three hours per week.**

612. LITERACY PRACTICUM II

3 hours credit

Engages candidates in advanced work in literacy assessment and instructional techniques with strategies for flexible grouping of diverse learners and/or individuals who experience difficulty in literacy learning. Reflective practice and peer coaching are developed through lesson study. **Prerequisite:** REED 611. **Three hours per week.**

614. LEADERSHIP FOR LITERACY PROFESSIONALS**3 hours credit**

Develops knowledge of adult learning theory, organizational change, school culture and literacy policy processes. Topics include organizing and enhancing a school-wide literacy program through professional development, communication and collaboration with diverse constituencies, and supervising professionals and paraprofessionals. **Prerequisite:** REED 612. **Three hours per week.**

620. SEMINAR IN LITERACY**3 hours credit**

Engages professional personnel in examination of selected issues of literacy development and instruction. Demonstrates achievement of competencies of a reading professional through portfolio presentation and preparation of a professional conference and/or publication. **Prerequisite or Corequisite:** REED 612. **Three hours per week.**

SCED
101. LEARNING LEADERSHIP**3 hours credit**

Teaches the knowledge, skills, behaviors and dispositions needed for leaders in a variety of settings and organizations. Prepare for leadership roles in the community and professions. Develop a fundamental understanding of the theoretical and learnable skills necessary for success in personal and professional areas. **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 SCED 300 and ELED 304 or EDUC 300. **Three hours per week.**

318. COMPUTERS IN EDUCATION**3 hours credit**

Overview of the role of computers in education. Examination of computer applications as they relate to specific teaching/learning operations and educational functions in the pre-K-12 classroom. May not receive credit for both SCED 318 and EDUC 318. **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. May not receive credit for both SCED 319 and EDUC 319. **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.**

320. TECHNOLOGY IN MATHEMATICS EDUCATION**3 hours credit**

Overview of the role of technology in mathematics education. Examination of computer applications as they relate to specific teaching/learning situations in grades 7-12 classrooms. **Prerequisite:** Admission to the Professional Teacher Education Program, MATH 201, 213, 214. **Three hours per week. (spring semester only)**

340. TEACHING LANGUAGE IN MIDDLE AND HIGH SCHOOL ENGLISH CLASSROOMS**3 hours credit**

Study of materials and methods for teaching language arts in

middle and high schools, with attention to aspects of language study for native speakers of standard English, speakers of non-standard English and English language learners. Various models and strategies for teaching language arts at this level are demonstrated and analyzed. Field experience concurrent with SCED 471. **Prerequisites:** SCED 371, SCED 318 or SCED 319. **Corequisite:** SCED 471. **Three hours per week. (fall semester only)**

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. **Prerequisite/Corequisite:** SCED 371 or 372 or 373 or 374 or 376 or 429 or 447 or HLTH 461. **Three hours per week.**

371. TEACHING READING AND TEXTS IN MIDDLE AND HIGH SCHOOL ENGLISH CLASSROOMS**4 hours credit**

Study of materials and methods for teaching language arts in the middle and high school, with attention to strategies and materials that support reading. Various models and strategies for teaching traditional and young adult literature and media for these levels demonstrated and analyzed. Required classroom visitations and field experiences for students in order to complete assignments. **Prerequisite:** Admission to Professional Teacher Education Program. **Prerequisite/Corequisite:** SCED 318 or SCED 319. **Three hours lecture, three hours field experience per week. (spring semester only)**

372. SOCIAL STUDIES AND READING METHODS IN MIDDLE AND HIGH SCHOOL, PART I**4 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. Required classroom visitations and field experience in order to complete assignments. **Prerequisite:** Admission to Professional Teacher Education Program. **Corequisite:** SCED 318 or SCED 319. **Three hours lecture, three hours field experience per week. (spring semester only)**

373. MATHEMATICS AND READING METHODS IN MIDDLE AND HIGH SCHOOL, PART I**4 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. Required classroom visitations and field experience as necessary to complete assignments. **Prerequisite:** Admission to Professional Teacher Education Program. **Prerequisite/Corequisite:** SCED 320. **Three hours lecture, three hours field experience per week. (spring semester only)**

374. SCIENCE AND READING METHODS IN MIDDLE AND HIGH SCHOOL, PART I**4 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. Required classroom visitations and field experiences as necessary to complete assignments. **Prerequisite:**

Admission to Professional Teacher Education Program. **Corequisite:** SCED 318 or SCED 319. **Three hours lecture, three hours field experience per week.** (spring semester only)

376. WORLD LANGUAGE AND READING METHODS IN MIDDLE AND HIGH SCHOOLS, PART I

4 hours credit

Study of the philosophy, aims and methods of teaching world languages in the middle and high school with emphasis on the theories, techniques and materials in current use. Emphasis on strategies, skills and instruction in reading. Required classroom visitations and field experience as necessary to complete assignments. **Prerequisite:** Admission to Professional Teacher Education Program. **Prerequisite/Corequisite:** SCED 318 or SCED 319. **Three hours lecture, three hours field experience 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 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.**

426/428. INTERNSHIP IN MIDDLE OR HIGH SCHOOL EDUCATION

6 hours credit each experience

Engages pre-service teachers in planning, teaching, assessment and collaboration in order to support and enhance student learning and well-being. Participation in activities required of fully employed teachers. **Prerequisite:** Admission to internship. **Corequisite:** SCED 433. **Two, eight-week, full-time, supervised clinical experiences under the direction of the mentor teacher and University supervisor. One placement each in middle and high school.** (P/F, IP)

429. TEACHING MUSIC AND READING IN THE MIDDLE AND HIGH SCHOOL

4 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 materials and their application to the secondary school curriculum. **Prerequisite:** Admission to Professional Teacher Education Program. **Three hours lecture and three hours field experience per week.** (fall semester only)

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

2 hours credit

Forum for discussion of issues pertinent to current practices, trends and issues in the middle and high school during the internship. **Prerequisite:** Admission to internship. **Corequisites:** SCED 426, 428. **Three hours per week for 10 weeks.** (spring semester only)

434. CLASSROOM MANAGEMENT

3 hours credit

Explores the ability to create and maintain productive learning environments in the middle and high schools. 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 activity required. **Prerequisite:** Admission to Professional Teacher Education Program. **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 Core 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. INTEGRATING WRITING AND READING IN MIDDLE AND HIGH SCHOOL ENGLISH CLASSROOMS

4 hours credit

Study of strategies and materials that support reading and writing in content area study of English language arts, with emphasis on methods of teaching writing. Long-range planning and assessment are examined as elements for integrating the language arts. Required classroom visitations and field experiences as necessary to complete assignments.

Prerequisites: Admission to Professional Teacher Education Program, SCED 371. **Corequisite:** SCED 340. **Pre- or Corequisite:** SCED 367. **Three hours lecture, six hours internship per week. (fall semester only)**

472. SOCIAL STUDIES AND READING METHODS IN MIDDLE AND HIGH SCHOOL, PART II

4 hours credit

Continuing analysis of middle and high school programs in social studies. Emphasis on methods of teaching history, geography, economics 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. Required classroom visitations and field experience as necessary to complete assignments. **Prerequisites:** Admission to Professional Teacher Education Program, SCED 372. **Three hours lecture, six hours internship per week. (fall semester only)**

473. MATHEMATICS AND READING METHODS IN MIDDLE AND HIGH SCHOOL, PART II

4 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. Required classroom visitations and field experience as necessary to complete assignments. **Prerequisites:** Admission to Professional Teacher Education Program, SCED 320, 373. **Three hours lecture, six hours internship per week. (fall semester only)**

474. SCIENCE AND READING METHODS IN MIDDLE AND HIGH SCHOOL, PART II

4 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. Required classroom visitations and field experiences as necessary to complete assignments. **Prerequisites:** Admission to Professional Teacher Education Program, SCED 374. **Prerequisite/Corequisite:** SCED 367. **Three hours lecture, six hours internship per week. (fall semester only)**

476. WORLD LANGUAGE AND READING METHODS IN MIDDLE AND HIGH SCHOOLS, PART II

4 hours credit

The study of the philosophy, aims and methods of teaching world languages in the middle and high school setting with emphasis on the theories, techniques and materials in current use. Emphasis on strategies, skills and instruction in reading in the content area. Required classroom visitations and field experience as necessary to complete assignments. **Prerequisites:** Admission to Professional Teacher Education Program, SCED 376. **Prerequisite/Corequisite:** SCED 367. **Three hours lecture, six hours internship 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. **Prerequisite or Corequisite:** PHYS 221. **Four hours lecture/activity 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. **Prerequisite:** PHYS 221. **Prerequisite/Corequisite:** MATH 202. **Three hours per week.**

220. MECHANICS OF MATERIALS

3 hours credit

Study stress and deformation of beams, shafts, columns, tanks and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle, centroids and moments of inertia, shear and bending moment diagrams, derivation of elastic curves, and Euler's buckling formula. Complete design project related to the material. **Prerequisite:** ENGR 110. **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:** ENGR 110, MATH 202. **Three hours per week.**

232. THERMODYNAMICS

3 hours credit

Introduction to the principles of thermodynamics and thermodynamic properties of matter. Topics include the first and second laws of thermodynamics, heat, work, temperature, entropy, enthalpy, cycles, reactions, mixtures, energy balances, and mass balances. A design project related to the material is given. **Prerequisites:** C or better in ENGR 110, MATH 202, PHYS 225. **Three hours per week.**

306. INTRODUCTION TO MATLAB

1 hour credit

Prepares physics and engineering students for subsequent courses requiring computation with MATLAB. Covers the basics of MATLAB, including simple commands, variables, solving equations, graphing differentiation and integration, matrices and vectors, functions, M-files and fundamentals of programming in the MATLAB environment. **Prerequisite:** C or better in MATH 202. **One hour per week.**

331. FLUID MECHANICS

3 hours credit

Introduction to the principles of fluid mechanics. Topics include mass, momentum and energy conservation, hydrostatics, control volume analysis, internal and external flow, boundary layers, and modern measurement techniques. A design project related to the material is given. **Prerequisites:** C or better in ENGR 221, MATH 310 and PHYS 225. **Four hours lecture/activity per week.**

332. HEAT TRANSFER

3 hours credit

Introduction to the principal concepts and methods of heat

transfer. The objectives of this integrated subject are to develop the fundamental principles and laws of heat transfer and to explore the implications of these principles for system behavior; to formulate the models necessary to study, analyze and design heat transfer systems through the application of these principles; and to develop the problem-solving skills essential to good engineering practice of heat transfer in real-world applications. Topics include conduction in solids, convection, radiation and modern measurement techniques. **Prerequisite:** ENGR 232. **Four hours lecture/activity per week.**

361. VIBRATIONS, CONTROL AND OPTIMIZATION 3 hours credit

Introduction to modeling, analysis and simulation techniques for the design of vibratory systems. Identification and prevention of unwanted oscillations or engineering of the desired oscillations in mechanical systems, civil structures, biomechanical systems and microelectromechanical systems. Topics include modeling of vibratory systems; single degree-of-freedom systems: governing equations, free response, periodic excitations and transient excitation; and multiple-degree-of-freedom systems: natural frequencies, mode shapes and forced oscillations. **Prerequisites:** ENGR 220, ENGR 221, MATH 311. **Four hours lecture/activity per week.**

395. INTERMEDIATE ENGINEERING RESEARCH 1-3 hours credit

Intermediate level, individual research project in engineering with supervision of a member of the faculty. May be repeated for up to six credits. **Prerequisites:** Eight credits of physics and/or engineering and departmental approval. **Two hours per week per credit.**

399. INTERMEDIATE SPECIAL TOPICS IN ENGINEERING 1-3 hours credit

Study of specific area of engineering at the sophomore or junior level. Topic varies semester to semester. May be repeated for up to six credits. **Prerequisite:** Permission of instructor. **One hour lecture per week per credit.**

409. ACOUSTICS 3 hours credit

Introduction to the principles of acoustics. Topics include the physics of sound, aeroacoustics, hydroacoustics, passive and active sonar systems, biosonar, architectural acoustics, sound isolation chambers, sound absorption, sound reflection, noise cancellation, underwater communication, cavitation, rectified diffusion, supersonics, and hypersonics. **Prerequisite:** C or better in PHYS 309. **Three hours per week.**

490. RESEARCH IN ENGINEERING 2 hours credit

Research project in engineering 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, 40 credits of physics/engineering (or senior standing), department chair approval. **Six 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.**

499. SPECIAL TOPICS IN ENGINEERING 1-3 hours credit

Study of specific advanced area of engineering. Topic varies semester to semester. May be repeated for up to six credits.

Prerequisite: Senior standing and department chair approval. **One hour lecture per week per credit.**

ENGLISH (ENGL)

103. COMPOSITION AND RESEARCH 4 hours credit

A course in college-level academic writing. Focus on argument, critical reading and writing, and information literacy. **Three hours per week with enhancement. Meets General Education IA (required C or better).**

220. INTRODUCTION TO FILM 4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

221. LITERATURE AND FILM 4 hours credit

The relation of film to literature as narrative, dramatic and poetic means of expression; the translation of literary works into film. **Prerequisite:** C or better in ENGL 103. **Two hours lecture, two hours screening per week with enhancement. Meets General Education IB.**

240. INTRODUCTION TO THE STUDY OF LANGUAGE 4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

250. UNDERSTANDING POETRY (GENRE) 4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

251. THE ART OF THE DRAMA (GENRE) 4 hours credit

An introduction to the types of drama in the American, British and Continental traditions. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

252. ASPECTS OF THE NOVEL (GENRE) 4 hours credit

Analysis of American, British and Continental novels; the form of the novel and its variations. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

253. THE SHORT STORY (GENRE) 4 hours credit

A study of the historical development of the short story, its forms, characteristics and its most successful practitioners. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

254. SATIRE (GENRE) 4 hours credit

The nature of satire and its historical forms. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

255. AFRICAN-AMERICAN SHORT STORY**4 hours credit**

Survey of African-American short fiction designed to inform students of the history of the sub-genre as well as highlight the canonical literature written in this form. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

256. LATINA/O LITERATURE**4 hours credit**

Study of literature (written in English) by Latina and Latino writers, including, but not limited to, Mexican American (Chicana/o), Puerto Rican American, Cuban American and Dominican American authors. May not receive credit for both ENGL 256 and ENGL 370. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

257. ETHNIC LITERATURE OF THE UNITED STATES**4 hours credit**

Explores literature of America's ethnic cultures and their historical and literary contexts. May include literature written by Americans of African, Asian, Arab, Latina/o and/or Native American ancestry. May not receive credit for both ENGL 257 and ENGL 385. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

258. AMERICAN WOMEN WRITERS OF COLOR**4 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 258 and ENGL 386. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

300. STUDIES IN ENGLISH LITERATURE**4 hours credit**

Study of a literary figure, period, genre, movement or theme. May be repeated under different subtitles. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

301. STUDIES IN ENGLISH: LANGUAGE, FILM OR WRITING**4 hours credit**

Study of a topic in language, film or writing. May be repeated under different subtitles. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

302. INTERNSHIP IN ENGLISH I**1-4 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 four credits may be applied to English major. May be taken for a maximum of four hours credit. **Prerequisites:** ENGL 103; junior standing English major or minor with minimum 3.0 cumulative GPA; written permission of department chair.

303. INTERNSHIP IN ENGLISH II**1-4 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 four hours of elective credit toward degree requirements and not major requirements. **Prerequisites:** ENGL 103, 302; junior standing English major or minor with minimum 3.0 cumulative GPA; written permission of department chair.

305. TECHNICAL WRITING AND EDITING**4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

306. WRITING FOR THE DISCIPLINES**4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

307. WRITING FOR DIGITAL ENVIRONMENTS**4 hours credit**

Focus on rhetorically analyzing established and emerging digital genres in order to gain the theoretical and practical background necessary to approach the production of writing for digital platforms. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

308. COMPOSITION III**4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

317. GERMAN SHORT STORIES**4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

318. TOPICS IN HISPANIC LITERATURE IN TRANSLATION**4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

323. MAJOR FILM DIRECTORS**4 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. May not receive credit for ENGL 405 and 323. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

324. FILM GENRE**4 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 103. **Three hours per week with enhancement.**

335. GOTHIC FICTION**4 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 reinvigora-

tion. Among authors studied are Horace Walpole, Ann Radcliffe, "Monk" Lewis, Poe, James, Bram Stoker and Stephen King. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

338. LITERATURE OF THE QUEER

4 hours credit

Study of literature written by and about "queers," including gay, lesbian, bisexual, transgender, gender-transcendent and intersexed identities. Selected readings derive from antiquity through the present, and are considered in their proper cultural and historical contexts. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

341. THE BIBLE AS LITERATURE

4 hours credit

The literature of the Bible: various forms, stylistic features and relation to culture. Emphasis on the Old Testament, King James version. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

342. WOMEN IN LITERATURE

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

344. LITERATURE OF A DECADE

4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

345. SCIENCE FICTION

4 hours credit

A survey of representative works of science fiction on a persistent theme or theme, such as artificial intelligence, time travel or alien cultures by major authors of the genre. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

348. NATURE IN LITERATURE

4 hours credit

A detailed study of attitudes toward and representations of nature and the natural in literature, especially of the 19th and 20th centuries. Topics may include the hostile relationship between nature and culture, the image of the animal "other," the human as animal, the personification of nature and/or the animal, the perilous position of human in nature, and the impact of eco-criticism. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

349. NORSE LITERATURE IN TRANSLATION

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

351. CREATIVE WRITING

4 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 sto-

ries. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

356. BRITISH LITERATURE I: BEGINNINGS TO 1660

4 hours credit

Survey of British literature from the Beowulf poet to the Restoration. Readings may include, but are not limited to, *The Canterbury Tales*, Spenser, Marlowe and Milton. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

357. BRITISH LITERATURE II: 1660-PRESENT

4 hours credit

Survey of British literature from the Restoration in 1660 to the present day. Readings may include, but are not limited to, Swift, Pope, Austen, Wordsworth, Keats, the Brownings, Hardy, Yeats, Woolf and Greene. Poetry and fiction included. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

363. WORLD LITERATURE I

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

364. WORLD LITERATURE II

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

365. LITERATURE OF THE GLOBAL SOUTH

4 hours credit

An introduction to literature by authors with a connection to the Global South: Africa, Asia and Latin America. Study diverse writers who use diverse literary techniques to represent and question some of the most urgent social, national and global issues of their times. Topics include, but are not limited to, nation, cultural identity, ethics, religion, race, imperialism, colonialism, post-colonialism, globalization, major historical events and global citizenship. Choice of authors and nations to be made by the instructor and will include both established and emerging voices. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

366. WORLD MYTHOLOGY

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

369. GLOBAL LITERATURE AND JUSTICE

4 hours credit

Introduction to the intersections between literature and justice. Explores how literature can represent and help achieve justice, and how literature can teach thinking globally. Considers a variety of topics, including, but not limited to, human rights, activism, economic rights, education rights, gender rights, group rights, social justice, race and globaliza-

tion. Choice of writers is made by the instructor. These writers include, but are not limited to, those who have connection to the Global South: Asia, Africa and Latin America. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

371. TOPICS IN LATINA/O LITERATURE **4 hours credit**

Study of selected topics in Latina/o literature (written in English). Such topics may include a specific region, national group, period, set of authors, theme, genre or issue. May be taken twice under different subtitles. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

377. INTRODUCTION TO AFRICAN LITERATURE **4 hours credit**

A study of selections from the range of literature central to the sub-genre of the literature of the African Diaspora, texts written in English by African authors. Engages these texts in an effort to better understand this history and cultures of pre-colonial Africa, as well as the impacts of colonization and post/neo-colonization through reading and discussion. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

378. LITERATURE OF THE AFRICAN DIASPORA **4 hours credit**

A study of selections from the range of literature that comprises the sub-genre of the African Diaspora. Engages texts in an effort to better understand and interpret the complex nature of chattel slavery, emancipation, reconstruction, colonialism and post-colonialist motivations through reading, discussion and cultural immersion. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

379. LITERATURE OF THE HARLEM RENAISSANCE **4 hours credit**

Study in literature written by American authors during the Harlem Renaissance period, beginning with the key concept of the period, W.E.B. DuBois' *Double Consciousness*. Readings include, but not limited to, the poetry of Hughes, McKay, Bennet, Fauset and Cullen; the fiction of Nugent, Fisher, Toomer, Larsen and Walter White. **Prerequisites:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

380. AMERICAN LITERATURE I: BEGINNINGS TO 1860 **4 hours credit**

Study of major American literature from the nation's origins to 1860. Authors to be studied may include, but are not limited to, Edwards, Franklin, Hawthorne, Irving, Melville, Poe and Whitman. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

381. AMERICAN LITERATURE II: 1860-PRESENT **4 hours credit**

Study of major American literature from 1860 to the present. Authors to be studied may include, but are not limited to, Crane, London, Chopin, T.S. Eliot, Gilman, Faulkner, O'Neill, Hurston, Hughes, Welty, Ellison, Baldwin, Barthelme and Morrison. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

382. AFRICAN-AMERICAN LITERATURE I **4 hours credit**

Study of major African-American literature from America's inception to the Harlem Renaissance. May include such writers as Terry, Equiano, Smith, Wheatley, Douglass, Jacobs, Brown, Harper, Hopkins, Dunbar, Chesnut, Grimke. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

383. AFRICAN-AMERICAN LITERATURE II **4 hours credit**

Study of major African-American literature from the Harlem Renaissance to present. May include such writers as Hughes, Hurston, Wright, Ellison, Petry, Madhubuti, Sanchez, Morrison, Walker, Wilson, Jones and Trethewey. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

384. NATIVE AMERICAN LITERATURE **4 hours credit**

A study of Native American literature (mostly in the "Western" genres of fiction and/or poetry) in the context of Native American peoples' experiences and their distinctive world-views. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

388. AMERICAN DRAMA **4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

389. TOPICS IN NATIVE AMERICAN LITERATURE **4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

399. INTERNATIONAL STUDIES IN LITERATURE **4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

401. STUDIES IN FILM **4 hours credit**

Study of a director, period, genre, movement or theme in the area of film. May be repeated twice under different subtitles. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

402. FILM HISTORY **4 hours credit**

The history of motion pictures with a focus on technical and artistic trends and the work of important artists and directors. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

404. INTERNATIONAL CINEMA **4 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 103. **Three hours per week with enhancement.**

405. HEARING CINEMA **4 hours per week**

Advanced introduction to film sound tracks, including analysis of music, sound effects and dialogue through various perspectives. Develop audiovisual literacy and expand under-

standing of cinema through analyzing its sonic impact. **Prerequisite:** C or better in ENGL 103. **Four hours per week.**

406. DOCUMENTARY CINEMA STUDIES

4 hours credit

Study of documentary cinema, with particular emphasis on critical and theoretical issues that documentary has historically faced, such as the representation of reality, the politics of representation, the intersection of individual and cultural memory, and the rhetoric of cinematic arguments, among other potential subjects. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

408. FILM POLITICS

4 hours credit

Introduction to applying advanced approaches to cinema, such as contemporary cultural and racial politics, psychoanalysis, feminism, queer theory, and post-colonial criticism. Includes a range of screenings and encourages students to read films in terms of various social and personally informed perspectives. **Prerequisite:** ENGL 220 or 221 or 402 or 403 or 404 or 405. **Three hours per week with enhancement.**

410. INDIVIDUAL AUTHORS

4 hours credit

An intensive study of one to three writers of major stature (choice to be made by the instructor). **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

411. CHAUCER

4 hours credit

Study of representative works by the 14th-century poet Chaucer, taught in their original language, Middle English, with a special emphasis on *The Canterbury Tales*. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

412. MILTON

4 hours credit

The sonnets, companion poems, essays and drama. Emphasis on *Paradise Lost*. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

413. SHAKESPEARE

4 hours credit

A study of the major comedies and histories with an emphasis on the tragedies. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

415. FICTION WORKSHOP

4 hours credit

Read, discuss and analyze contemporary fiction to observe techniques in craftsmanship and present fiction for intensive examination by workshop participants. May be taken twice for credit. **Prerequisite:** ENGL 351 or permission of instructor. **Three hours per week with enhancement.**

416. POETRY WORKSHOP

4 hours credit

Read, discuss and analyze contemporary poetry to observe techniques in craftsmanship and present poetry for intensive examination by workshop participants. May be taken twice for credit. **Prerequisite:** ENGL 351 or permission of instructor. **Three hours per week with enhancement.**

417. WRITER'S CRAFT

4 hours credit

The capstone course of the creative writing track. Designed to help students gain a deeper understanding of their chosen genre (poetry, fiction or nonfiction) and to learn how to "professionalize" as writers by gaining experience in the fields of

teaching and publishing, as well as writing. Workshop and complete publication-ready creative and critical work in preparation for graduate study and contextualize writing within a creative heritage. **Prerequisite:** ENGL 496 or 498 or approval of instructor. **Three hours per week with enhancement.**

428. ESOL TESTS AND MEASUREMENTS

4 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 432 or 434 or permission from instructor. **Three hours per week with enhancement.**

430. PRINCIPLES OF LINGUISTICS

4 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 103. **Three hours per week with enhancement.**

431. SURVEY OF MODERN ENGLISH GRAMMAR

4 hours credit

A 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 with enhancement.**

432. LITERACY AND ESOL READING

4 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 included are models for acquiring foreign language reading skills, teaching strategies 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:** C or better in ENGL 103. **Three hours per week with enhancement.**

433. LANGUAGE AND CULTURE

4 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 103. **Three hours per week with enhancement.**

434. LITERACY AND ESOL WRITING

4 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. **Prerequisite:** ENGL 431 or permission of instructor. **Three hours per week with enhancement.**

438. BILINGUALISM

4 hours credit

A 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, aca-

demic and language learning consequences of growing up bilingual in the U.S.A. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

439. SECOND LANGUAGE ACQUISITION

4 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:** C or better in ENGL 103. **Three hours per week with enhancement.**

447. CURRENT APPROACHES IN ESOL INSTRUCTION

4 hours credit

Familiarizes students with the foundations of teaching English to speakers of other languages (ESOL). Provides for examination of current theory and empirical data on language learning and teaching. Examine pedagogical implications/applications of teaching methodologies intended for non-native speakers of English by examining the latest research data. Seeks to meet the needs of practicing or prospective teachers enrolled in an undergraduate program. **Prerequisite:** ENGL 428 or permission of instructor. **Three hours per week with enhancement.**

453. MODERN POETRY

4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

454. WRITING CENTERS: THEORY AND PRACTICE

4 hours credit

Introduces students to peer tutoring as a mode of collaborative learning. Focuses on preparing students to lead writing center consultations. **Prerequisite:** C or better in ENGL 103, consent of instructor. **Three hours per week with enhancement.**

455. NON-FICTION WORKSHOP

4 hours credit

Read, discuss and analyze contemporary nonfiction to observe techniques in craftsmanship and present nonfiction for intensive examination by workshop participants. May be taken twice for credit. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

461. FEMINIST LITERATURE AND THEORY

4 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. **Prerequisites:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

463. LITERARY ANALYSIS

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

464. RHETORICAL CRITICISM

4 hours credit

Introduces critical methods for analyzing persuasive mes-

sages in a variety of genres and contexts. **Prerequisite:** C or better in ENGL 306 or 308. **Three hours per week with enhancement.**

465. COMPOSITION THEORY

4 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 103. **Three hours per week with enhancement.**

466. METHODS FOR COMPOSITION AND RHETORIC RESEARCH

4 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 with enhancement.**

467. HISTORY AND THEORY OF RHETORIC

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement.**

469. TOPICS IN GLOBAL SOUTH LITERATURE

4 hours credit

Study of select topics in literature of the Global South (Africa, Asia, Latin America) that may include a specific region, genre, theme, period or movement. Topics vary according to instructors. May be repeated under different subtitles. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

470. TOPICS IN AFRICAN-AMERICAN LITERATURE

4 hours credit

Study of select topics in African-American literature that may include a specific region, genre, theme, period or movement. Topics vary according to instructors. May be repeated under different subtitles. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

471. MEDIEVAL ENGLISH LITERATURE

4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

472. LITERATURE OF THE BRITISH RENAISSANCE

4 hours credit

A study of English literature, exclusive of Shakespeare, from 1500 to 1660. Authors studied may include, but are not limited to, More, Sidney, Spenser, Marlowe, Donne, Jonson, Lanier, Marvell and Milton. Pays special attention to the period's rich and varied modes of poetry, fiction, drama and nonfictional prose. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

473. RESTORATION AND 18TH CENTURY LITERATURE

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

474. ROMANTIC LITERATURE

4 hours credit

A 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

475. VICTORIAN LITERATURE

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

476. BRITISH NOVEL I: BEGINNINGS TO 1837

4 hours credit

A study of the history and development of the British novel from the beginnings to the coronation of Victoria. Novels may include, but are not limited to, works by Sidney, Behn, Defoe, Richardson, Fielding, Sterne, Burney, Austen and Mary Shelley. A variety of theoretical models are considered. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

477. BRITISH NOVEL II: 1837 TO THE PRESENT

4 hours credit

A study of the British novel from the coronation of Queen Victoria to the present day. Authors may include, but are not limited to, Charles Dickens, George Eliot, Thomas Hardy, Joseph Conrad, Virginia Woolf, Graham Greene and Martin Amis. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

479. CONTEMPORARY TRENDS IN BRITISH LITERATURE

4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

480. COLONIAL AMERICAN LITERATURE

4 hours credit

A study of American literature prior to 1820. Writers studied may include Bradford, Bradstreet, Taylor, Edwards, Franklin, Irving and Cooper. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

481. THE AMERICAN RENAISSANCE

4 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. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

482. AMERICAN REALISM AND NATURALISM (1865-1925)

4 hours credit

Investigates the rise of Realism and Naturalism (1865-1925) in American literature and the relationship between the development of these forms and the historical and cultural atmospheres from which they emerged. Authors to be studied may include Henry James, William Dean Howells, Frank Norris, Stephen Crane, Charles Chesnutt, Edith Wharton and Theodore Dreiser. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

483. AMERICAN SOUTHERN WRITERS: MODERN TO PRESENT

4 hours credit

A study of literature produced in the South from 1930 to the present. Writers may include Faulkner, O'Connor, Welty, Porter, Warren, Percy, Capote, Taylor, Grau, Styron and Young. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

484. AMERICAN NOVEL I: BEGINNINGS TO 1900

4 hours credit

A study of major American novels through 1900. Writers studied may include Crane, Hawthorne, Melville and Twain. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

485. AMERICAN NOVEL II: 1900 TO THE PRESENT

4 hours credit

A study of major American novels from 1900 to the present, with a focus on Realism, Modernism and Postmodernism. Authors to be studied may include, but are not limited to, Wharton, Dreiser, Faulkner, Barnes, Capote, DeLillo and Morrison. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

488. CONTEMPORARY TRENDS IN AMERICAN LITERATURE

4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

491. TOPICS IN LINGUISTICS AND LANGUAGE LEARNING

4 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:** C or better in ENGL 103. **Three hours per week with enhancement.**

492. PRACTICUM IN ENGLISH

1-4 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 coursework in that option and approval of department chair. **Variable hours per week.**

493. INDEPENDENT STUDY

4 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. **Three hours per week with enhancement.**

494. TOPICS IN ENGLISH: WRITING OR FILM

4 hours credit

Intensive study in language or film. May be repeated for credit in different areas of study. **Prerequisite:** C or better in ENGL 103 or permission of instructor. **Three hours per week with enhancement.**

495. TOPICS IN WRITING AND RHETORIC

4 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. **Three hours per week with enhancement.**

496. TOPICS IN POETRY

4 hours credit

Deeply engage with contemporary poetry and its trends, produce publishable work and become fluent in the language of contemporary poetry broadly and in one particular aspect of that conversation specifically. Read some of the classic poems online and, through four monograph books, explore the range of technique in the contemporary collections. Explore advanced poetry techniques and gain a critical understanding of the important aspects of the discourse of contemporary poetry. Learn how to initiate, develop and complete a marketable project and become extremely well versed in one particularly important technique or topic. May be taken twice for credit with different topics. **Prerequisite:** ENGL 416 or 498 or approval of instructor. **Three hours per week with enhancement.**

497. UNDERGRADUATE RESEARCH

1-4 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 four credits. **Prerequisites:** C or better in ENGL 103, permission of instructor and department chair.

498. TOPICS IN PROSE

4 hours credit

Deeply engage with contemporary prose and its trends, produce publishable work and become fluent in the language of contemporary prose broadly and in one particular aspect of that conversation specifically. Read classic and contemporary prose, learn advanced prose techniques, and develop a critical understanding of contemporary prose and its discourse. May be taken twice for credit with different topics. **Prerequisite:** ENGL 415 or 455 or 496 or approval of instructor. **Three hours per week with enhancement.**

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 century. 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.**

508. METHODS AND THEORIES FOR LITERARY RESEARCH

3 hours credit

Introduces students to the methods and theories that are foundational to the study of literature at the graduate level and the application of those theories to literature. Beginning with New Criticism, the course explores dominant theoretical trends of the 20th century, including, but not limited to, Marxism, Feminism, Psychoanalysis and Multiculturalism. Examine key literary, critical and theoretical terms/concepts as well as learn to analyze secondary sources in the process of producing critically informed work. **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-syntax, 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. **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

Study of representative works by the 14th-century poet Chaucer, taught in their original language, Middle English, with a special 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**

3-6 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. **Three or six hours per week.**

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.**

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 532 or 534 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. **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 sociolin-

guistic 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. **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 537 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. **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. **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. **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. **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 lan-

guage and, hence, how one learns a second language. **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. **Prerequisite:** ENGL 428/528 or permission of instructor. **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.**

564. RHETORICAL CRITICISM
3 hours credit

Introduces critical methods for analyzing persuasive messages in a variety of genres and contexts. **Three hours per week.**

565. COMPOSITION THEORY
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. METHODS FOR COMPOSITION AND RHETORIC 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.**

569. TOPICS IN GLOBAL SOUTH LITERATURE
3 hours credit

Study of select topics in literature of the Global South (Africa, Asia, Latin America) that may include a specific region, genre, theme, period or movement. Topics vary according to instructors. May be repeated under different subtitles. **Three hours per week.**

570. TOPICS IN AFRICAN-AMERICAN LITERATURE
3 hours credit

Study of select topics in African-American literature that may include a specific region, genre, theme, period or movement. Topics vary according to instructors. May be repeated under different subtitles. **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 include Behn, Rochester, Dryden, Defoe, Swift, Pope, Johnson, Boswell, Goldsmith, Burns and Blake. **Three hours per week.**

574. ROMANTIC LITERATURE
3 hours credit

A 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 1837
3 hours credit

A study of the history and development of the British novel from the beginnings to the coronation of Victoria. Novels may include, but are not limited to, works by Sidney, Behn, Defoe, Richardson, Fielding, Sterne, Burney, Austen and Mary Shelley. A variety of theoretical models are considered. **Three hours per week.**

577. BRITISH NOVEL II: 1837 TO THE PRESENT
3 hours credit

A study of the British novel from the coronation of Queen Victoria to the present day. Authors may include, but are not limited to, Charles Dickens, George Eliot, Thomas Hardy, Joseph Conrad, Virginia Woolf, Graham Greene and Martin Amis. **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 REALISM AND NATURALISM
(1865-1925)**

3 hours credit

Investigation of the rise of Realism and Naturalism (1865-1925) in American literature and the relationship between the development of these forms and the historical and cultural atmospheres from which they emerged. Authors to be studied may include Henry James, William Dean Howells, Frank Norris, Stephen Crane, Charles Chesnutt, Edith Wharton and Theodore Dreiser. **Three hours per week.**

**583. 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.**

584. 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.**

585. AMERICAN NOVEL II: 1900 TO THE PRESENT

3 hours credit

A study of major American novels from 1900 to the present, with a focus on Realism, Modernism and Postmodernism. Authors to be studied may include, but are not limited to, Wharton, Dreiser, Faulkner, Barnes, Capote, DeLillo and Morrison. **Three hours per week.**

**588. 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. **Three hours per week.**

590. 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.

**591. 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. **Three hours per week.**

592. 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.**

594. TOPICS IN ENGLISH: WRITING OR FILM

1-3 hours credit

Intensive study in language or film. May be taken for credit in different areas of study.

595. TOPICS IN WRITING AND RHETORIC

3 hours credit

Intensive study of selected topics in writing and rhetoric. May be taken in different areas of study for a total of six hours of credit. **Three hours per week.**

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 IVB.**

**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 assess-

ment, 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 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 STUDIES (ENVR)**102. INTRODUCTION TO SUSTAINABILITY****4 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. **Three hours per week with enhancement. Meets General Education IVB.**

150. ENVIRONMENTAL PERSPECTIVES**4 hours credit**

Interdisciplinary study of environmental issues with content that may vary semester to semester. A selected environmental topic is covered in depth from the perspective of different disciplines. Challenges students to evaluate environmental issues under differing contexts and perspectives. May be taken twice under different course topics. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

200. ENVIRONMENTAL STUDIES IN THE AMAZON**3 hours credit**

Central course for the environmental studies winter program in Brazil. An intensive five-week introduction to the history, politics, geography, culture and biology of the Amazonian

region of Brazil. Interdisciplinary approach includes lectures, field excursions and applied projects in Brazil. **Over five weeks, 15 three-hour classes and 10 extended day trips.**

205. ART, NATURE, CULTURE

4 hours credit

Considers how humans – individually and collectively – have understood nature, primarily drawing from philosophy, literature, history and the arts. Special emphasis upon the genre of natural history as a bridge between the questions raised by the humanities about the living world and the natural sciences. **Three hours per week with enhancement.**

210. PRINCIPLES OF ENVIRONMENTAL ECONOMICS

4 hours credit

Introduction to the ideas and tools economists use to understand human behavior that is constrained by scarce resources with applications to environmental policy. Analytic tools, including demand and supply analysis, will be used to introduce students to policies to address externalities, including the use of taxes, subsidies and marketable pollution permits. **Three hours per week with enhancement.**

**300. ENVIRONMENTAL STUDIES:
METHODS AND ANALYSIS**

4 hours credit

Provides an overview of methodologies for the study of the interactions between human societies and the environment. Guides students in the focused preparation of a research paper and formal research presentation. **Prerequisite:** ENVR 102. **Four hours per week.**

302. SOCIETY AND ENVIRONMENT

4 hours credit

Focuses on the interlinked natural and social systems of the contemporary world. Particular attention is given to the qualitative social sciences and history, and to analyzing the public and political discourses surrounding environmental regimes. **Prerequisite:** ENVR 102. **Three hours per week with enhancement.**

305. TOPICS IN HUMANITIES/SOCIAL SCIENCES

4 hours credit

Interdisciplinary investigation of a topic in the environmental humanities or social sciences. May be taken three times under different course titles. **Prerequisites:** ENVR 102 and ENVR 205, 210 or 300. **Three hours per week with enhancement.**

315. GARBAGE AND EVERYDAY LIFE

4 hours credit

Interdisciplinary investigation of the political, social and economic relations of waste. Considers what our wasting practices can tell about the causes and consequences of environmental degradation. **Prerequisite:** Junior standing. **Three hours per week with enhancement.**

320. ENVIRONMENTAL JUSTICE

4 hours credit

Questions how human systems of distribution of resources, of space and of pollution intersect with environmental degradation, human health concerns and access to environmental amenities. Central to this framing of environmental studies is the question of equity – what is fair and just? How do environments replicate systems of human injustice or exploitation? Focus is historical and contemporary, analyzing current environmental justice concerns and considering their historical antecedents. **Prerequisites:** Two courses in ENVR or junior standing. **Three hours per week with enhancement.**

325. WILDERNESS AND ENVIRONMENTALISM

4 hours credit

Investigates the role of wilderness in contemporary and historical conceptions, of attitudes toward, and in conversation of nature. Drawing from history, literature, philosophy, the

arts, cultural studies, public policy and conservation biology, explore the emergence and impact of wilderness preservation as a key component of both the environmental movement and global conservation politics. **Prerequisites:** Two courses in ENVR or junior standing. **Three hours per week with enhancement.**

**349. INTERNATIONAL STUDY OF POLICY, VALUES
AND ENVIRONMENT**

4 hours credit

On-site study of the interactions between social values, public policy and the environment, with a focus on a particular international context (for example, sustainable development in Costa Rica) at an affiliated institution (for example, School for Field Studies). **Prerequisite:** Admission to relevant program. **Four hours lecture per week.**

350. TOPICS IN THE NATURAL SCIENCES

4 hours credit

Interdisciplinary investigation of a topic in the environmental natural sciences. May be taken three times under different course titles. **Prerequisite:** Two lab science courses in different departments. **Three hours per week with enhancement.**

353. CONSERVATION AND BIODIVERSITY

4 hours credit

Focuses on why preserving biodiversity is critical for nature and humankind. Learn ways to describe biodiversity at different scales, discuss major threats to biodiversity, and explore methods for conserving and preserving biodiversity. Focuses on the role that local communities play in conservation, with visits to local conservation organizations and researchers. **Prerequisite:** Two lab science courses in different departments. **Three hours lecture, two hours laboratory per week.**

**355. WILDLIFE MANAGEMENT AND
FIELD TECHNIQUES**

4 hours credit

Focuses on the theoretical and practical issues surrounding wildlife management. Field trips permit visits to local agencies managing natural areas and give hands-on experience in techniques that commonly are used to assess, monitor and quantify wildlife populations and their habitats. Focuses on the ever-increasing importance of “human dimensions” of wildlife management. **Prerequisite:** Two lab science courses in different departments. **Three hours lecture, two hours laboratory per week.**

**399. INTERNATIONAL FIELD STUDY OF RESOURCE
MANAGEMENT AND SUSTAINABILITY**

4 hours credit

On-site study of the principles of resource management, with a focus on a particular international context (for example, in the tropical forest of Costa Rica) at an affiliated institution (for example, School of Field Studies). **Prerequisite:** Admission to relevant program. **Four hours lecture per week.**

400. CONTEMPORARY ENVIRONMENTAL ISSUES

1 hour credit

Discussion seminar focused upon the review and analysis of environmental topics in the mainstream media. **Prerequisite:** ENVR 102. **One hour per week.**

460. TOPICS IN CHESAPEAKE BAY STUDIES

3-4 hours credit

Interdisciplinary investigation of the social, cultural and physical aspects of the Chesapeake Bay and its associated human communities. Special attention to the environmental impacts of human actions and decisions in the Chesapeake Bay watershed and the ways in which environmental factors have in turn impacted human communities. May be taken twice under different course titles. **Prerequisites:** Sophomore standing. **Three to four hours per week.**

480. INTERNSHIP IN ENVIRONMENTAL STUDIES**3-8 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. May be taken twice for a maximum of eight credits. **Prerequisite:** Permission of environmental studies advisor. **Forty-five hours of supervised work per credit hour required.**

485. DIRECTED STUDY IN ENVIRONMENTAL STUDIES**1-4 hours credit**

Supervised independent study in preparation to complete ENVR 490 or as a means for additional in-depth study of a particular topic under the direction of a faculty member. **Prerequisites:** Junior standing, permission of instructor. **One to four hours per week.**

486. DIRECTED RESEARCH IN ENVIRONMENTAL STUDIES**1-4 hours credit**

Provides advances students the opportunity to complete an independent supervised research project. Students will present their findings in a public forum. **Prerequisites:** Junior standing, permission of instructor. **One to four hours per week.**

490. SENIOR THESIS IN ENVIRONMENTAL STUDIES**4 hours credit**

Independent study undertaken for senior thesis at the invitation of the department. Students design and complete a research project, and present their findings in a public forum. **Prerequisites:** ENVR 485, junior standing, permission of the chair and the instructor.

495. ENVIRONMENTAL FIELD STUDIES**1-4 hours credit**

Field course taught abroad or in a remote setting within the United States. Particular attention to the interdisciplinary environmental issues associated with a particular location in which the field study occurs from a primarily humanistic or social science perspective. May be taken twice for different field courses. **Prerequisites:** Sophomore standing. **Variable hours per week.**

499. ENVIRONMENTAL SENIOR SEMINAR**4 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:** ENVR 300, junior status and completion of 20 core credits in environmental studies major. **Three hours per week with enhancement.**

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.**

213. INJURY PREVENTION AND EMERGENCY MANAGEMENT**4 hours credit**

Basic first aid and emergency concepts (CPR), as well as prevention, recognition, treatment and management of

injuries and physical disabilities that effect exercise. Initial and follow-up care are studied, along with the influence of training and program design on adaptations associated with diseases, functional disabilities and injuries that affect strengthening techniques. **Four hours per week.**

240. FITNESS TESTING**4 hours credit**

Presents practical as well as theoretical knowledge about the various models and protocols used in health-related fitness assessment. Focuses on developing expertise in preparation of clients for fitness testing, utilization of various modes of exercise testing and test interpretation. **Three hours lecture, two hours lab per week.**

250. STRENGTH TRAINING TECHNIQUES AND PROGRAM DESIGN**4 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. Gain experience in the theoretical and practical aspects of designing individual workout sessions, periodization and programming to enhance progression. May not receive credit for both EXSC 250 and EXSC 312. **Prerequisite:** FTWL 106/PHED 175. **Three hours lecture, two hours lab per week.**

295. FITNESS INSTRUCTION**4 hours credit**

Learn to design and lead group exercise sessions and one-on-one personal fitness training exercise sessions offered in community and wellness settings. Demonstrate or lead exercise screening and clearance, assessment, evaluation, prescription and instruction for individualized and group exercise programming. Learn physiological and biomechanical principles related to group and individual exercise sessions as well as safety, motivation and adherence, and modifications for diverse populations. Progressive exercise programming for both individual and group exercise settings is applied through laboratory experiences. Assists in meeting the requirements to be eligible for and pass a group fitness instruction, personal fitness training, or strength and conditioning certification. **Prerequisite:** EXSC 240, 250. **Three hours lecture, two hours lab per week.**

300. HEALTH-FITNESS PROGRAMS AND PROFESSIONS**4 hours credit**

Introduction to the exercise science discipline, including certification and licensure, organizations, and employment opportunities. Examines the health-fitness specialist's role in facility administration and program management, including health promotion programming, marketing, equipment maintenance, facility design and documented safety procedures. May not receive credit for both EXSC 300 and EXSC 335. **Prerequisite:** FTWL 106. **Four 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.**

308. RESEARCH IN EXERCISE SCIENCE**3 hours credit**

Designed to help students understand, evaluate and conduct exercise science research. Examine the basic concepts and procedures used for conducting research, acquire skills required to become better consumers of research and develop an understanding of how to apply research findings. Collaborate to design and present an original research study. **Prerequisite:** Permission of the instructor. **Nine hours per week.**

317. NUTRITION, HEALTH AND HUMAN PERFORMANCE
4 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. May not receive credit for more than one of the following: EXSC 317, HLTH 217, HLTH 317. **Prerequisite:** C or better in both BIOL 215 and BIOL 216. **PHED Major Prerequisite:** C or better in BIOL 205. **Four hours per week.**

333. KINESIOLOGY
4 hours credit

Examination of the structure and function of the human body and the mechanical principles affecting its movement. Review of the musculoskeletal system followed by an in-depth study of how human movement occurs. Presentation of nomenclature of the body planes, axes and movement. May not receive credit for both PHEC 333 and PHEC 433. **Prerequisite:** C or better in BIOL 215. **PHED Major Prerequisite:** C or better in BIOL 205. **Five hours per week.**

344. EXERCISE PHYSIOLOGY
4 hours credit

In-depth study of changes that occur due to acute and chronic exercise. Emphasis on circulatory, nervous and muscular systems. May not receive credit for both EXSC 344 and EXSC 332. **Prerequisite:** C or better in both BIOL 215 and BIOL 216. **PHED Major Prerequisite:** C or better in BIOL 205. **Five hours per week.**

462. CLINICAL EXERCISE PHYSIOLOGY
4 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 physiologic differences among individuals with various medical conditions. Behavioral modification counseling skills for various populations are developed. **Prerequisites:** EXSC 240, 250, 344. **Four hours per week.**

472. STRESS TESTING AND EXERCISE PRESCRIPTION
4 hours credit

Presents practical as well as theoretical knowledge about the various modes and protocols used in graded exercise testing, basic electrocardiography and exercise prescription based on testing results. Laboratory sessions provide opportunities for students to gain practical experience in performing various physiological testing procedures. May not receive credit for both EXSC 472 and EXSC 481. **Prerequisites:** C or better in EXSC 240, 250, 295, 344. **Three hours lecture, two hours lab per week.**

479. INTERNSHIP IN EXERCISE SCIENCE
1-10 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 375 hours of work, completing assignments as outlined in the *Exercise Science Internship Manual*. **Prerequisites:** EXSC 333, 344 and 90 credit hours or departmental approval. **Corequisite:** EXSC 480. **37.5 hours per credit. (P/F)**

480. EXERCISE SCIENCE SEMINAR
2 hours credit

Review of the American College of Sports Medicine's knowledge, skills and abilities (KSA) for a Health-Fitness Specialist (HFS). Exercise science majors must pass a national credentialing exam in the health-fitness field. Prepares students for the American College of Sports Medicine's HFS examination. **Prerequisites:** EXSC 333, 344 and must have at least 100 credits. **Two hours per week.**

490. SELECTED TOPICS IN HEALTH
4 hours credit

Provides opportunities to investigate special themes or issues of interest to students and the health profession. Topics will vary each semester. May be repeated once under different course subtitles for a total of six credits. **Prerequisite:** Designated by topic. **Four hours per week.**

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 life-time economic cycle. **Three hours per week. Meets General Education IIIB or IIIC.**

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. Explains how financial managers help maximize the value of a firm by making capital budgeting, cost of capital and capital structure decisions. **Major Prerequisites:** Admission to the professional program, ECON 211, 212. **Non-Major Prerequisites:** junior standing, ACCT 201, MATH 155, ECON 150 or 211. **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 B or better. **Three hours per week.**

317. SECURITIES REGULATIONS AND LICENSING
3 hours credit

Helps to pass the General Securities Registered Representative Exam (Series 7). Topics currently covered by the Series 7 exam include, but are not limited to, corporate, equity/fixed-income securities, local/state/federal government securities, derivative securities and investment company products. Course is not affiliated with FINRA, the Series 7 exam provider, and does not exempt students from the examination eligibility requirements. **Major Prerequisite:** Admission to the professional program. **Non-Major Prerequisite:** Junior standing. **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). **Major Prerequisites:** Varies by topics and admission to Professional Program. **Non-Major Prerequisites:** Varies by topics and junior standing. **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 B 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 B or better. **Three hours per week.**

442. FINANCIAL DERIVATIVES**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. **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 B 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 B or better or economics major with senior status. **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 B 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 B 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 B 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:** C or better in FINA 441 and permission of instructor. **Three hours per week.**

450. CASE STUDIES IN PERSONAL FINANCIAL PLANNING**3 hours credit**

Examines professional issues in financial planning, including ethical considerations, regulation and certification requirements, written communication skills, and professional responsibility. Utilize skills obtained in other courses and work experiences in the completion of a comprehensive personal finance case, other mini-case studies and calculation templates. **Prerequisites:** FINA 311, 441 and 446 or 448. **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. **Prerequisites:** Finance major, FINA 311 with grade of B or better, placement approval and permission of the department chair, completion of ABLE Office administrative requirements, successful completion of BUAD 300. **Three hours per week.**

491. ADVANCED FINANCE INTERNSHIP**1-3 hours credit**

Research associated with an internship experience in finance. **Prerequisite:** FINA 490 or ABLE requirement, placement approval and permission of the department chair, completion of ABLE administrative requirements. **One to 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.**

626. CORPORATE FINANCIAL MANAGEMENT**3 hours credit**

Review of financial theory and techniques. Topics include capital acquisition, risk analysis, use of the capital asset pricing model, advanced capital budgeting and multinational corporate finance. Ethical concepts are covered where relevant. **Prerequisites:** Admission to the M.B.A. program; completion of IVY Software Finance Assessment; FINA 311 (or equivalent) with a grade of C or better; ACCT 666; ECON 601. **Six hours per week for half a semester.**

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.**

FITNESS AND WELLNESS (FTWL)

102. FIRST AID AND EMERGENCY CARE

1 hour credit

Introduction to basic information and skills required to administer care in emergency situations. Students may earn a nationally recognized certification in emergency cardiovascular care (CPR/AED) and first aid. May not receive credit for both HLTH 102 and FTWL 102. **Equivalent to 15 hours.**

106. LIFELONG FITNESS AND WELLNESS

3 hours credit

Covers topics including the components of fitness, nutrition, weight management, cancer, cardiovascular disease and stress management within the framework of the six dimensions of wellness. Includes both lecture and physical fitness components. May not receive credit for both PHEC 106 and FTWL 106. **Four hours per week. Meets General Education V.**

107. LIFELONG FITNESS AND WELLNESS II

1 hour credit

Provides students opportunities to set and achieve new wellness goals based on foundational experiences from FTWL 106. May not receive credit for both PHEC 107 and FTWL 107. **Prerequisite:** FTWL 106. **Two hours per week. (P/F)**

FRENCH (FREN)

101. ELEMENTARY FRENCH I

4 hours credit

Beginning spoken and written French with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102. ELEMENTARY FRENCH II

4 hours credit

Continuation of skill development in spoken and written French with further study of major structures. **Prerequisite:** FREN 101 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

201. INTERMEDIATE FRENCH

4 hours credit

Continued development and refinement of language skills with emphasis on reading, writing and vocabulary development. **Prerequisite:** FREN 102 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

202. INTERMEDIATE AND APPLIED FRENCH

4 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. **Prerequisite:** FREN 201 or appropriate

score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

290. INTERMEDIATE FRANCOPHONE TOPICS

1-4 hours credit

Study of French or Francophone topic that is literary, cultural or linguistic in nature. **Prerequisite:** FREN 202. **One to four hours per week.**

300. FRANCOPHONE TOPICS

1-4 hours credit

In-depth study of French or Francophone topic that is literary, cultural or linguistic in nature. **Prerequisite:** FREN 202. **One to four hours per week.**

310. FRENCH GRAMMAR AND COMPOSITION

4 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. **Prerequisite:** FREN 202 or appropriate score on department placement exam. **Three hours per week with enhancement.**

312. FRENCH CONVERSATION

4 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. **Prerequisite:** FREN 202 or appropriate score on department placement exam. **Three hours per week with enhancement.**

316. FRANCOPHONE CULTURE AND CIVILIZATION I

4 hours credit

Study of geography of France and Francophone civilization tracing major historical, cultural and artistic themes from the 16th and 17th century. **Prerequisite:** FREN 202. **Three hours per week with enhancement.**

317. FRANCOPHONE CULTURE AND CIVILIZATION II

4 hours credit

Study of Francophone civilization tracing major historical, cultural and artistic themes from the 18th to the 20th century. **Prerequisite:** FREN 202. **Three hours per week with enhancement.**

325. FRANCOPHONE CULTURE THROUGH LITERATURE

4 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. **Prerequisite:** FREN 310 or consent of instructor. **Three hours per week with enhancement. Meets General Education IB.**

350. MASTERPIECES OF FRENCH LITERATURE I

4 hours credit

Study of France's great literary works from the Middle Ages to the Enlightenment. **Prerequisite:** FREN 310. **Three hours per week with enhancement. Meets General Education IB.**

351. MASTERPIECES OF FRENCH LITERATURE II

4 hours credit

Study of France's great literary works from the 19th century to present. **Prerequisite:** FREN 310. **Three hours per week with enhancement. Meets General Education IB.**

403. ADVANCED COMPOSITION AND CONVERSATION WITH MEDIA

4 hours credit

Use a variety of current French media to assist students in the

improvement oral and written skills to an advanced level. **Prerequisites:** FREN 310, 312. **Three hours per week with enhancement.**

410. ADVANCED FRANCOPHONE TOPICS **4 hours credit**

An in-depth study of an author, movement or series of works that have come to define a particular segment of the Francophone world. Taught in French. **Prerequisite:** Complete at least two 300-level French courses with grades of C or better. **Three hours per week with enhancement. Meets General Education IB.**

480. SENIOR SEMINAR **1-4 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 **1-4 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 eight credits. **Prerequisites:** Junior standing and permission of department chair.

501. 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:** Graduate standing. **Three hours per week.**

502. 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:** Graduate standing. **Three hours per week.**

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.

GENDER AND SEXUALITY STUDIES (GSST)

213. INTRODUCTION TO GENDER AND SEXUALITY STUDIES **4 hours credit**

Examines the historic roots of gender and sexuality studies, how various disciplines approach gender and sexuality issues and how concepts of gender and sexuality affect lives. May not be taken for credit if student has credit for HIST 213 or IDIS 213. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

485. GENDER AND SEXUALITY STUDIES CAPSTONE SEMINAR **4 hours credit**

Examines gender and sexual orientation issues and questions from a contemporary perspective, including psychology, education, philosophy, history, English, sociology, political science and art. Readings, lectures and discussion provide a theoretical framework for capstone projects in spring semes-

ter. Produce an independent research project on a topic of one's choosing relevant to gender and sexuality studies. Offered only in the spring semester. **Prerequisite:** Permission of gender studies coordinator. **Three hours per week with enhancement.**

GENERAL STUDIES (GENL)

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.**

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, foundational 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 (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 IIIB or IIIC.**

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 IIIB or IIIC.**

102. WORLD GEOGRAPHY: AFRICA AND THE AMERICAS **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 IIIB or IIIC.**

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 education majors. **Three hours lecture, two hours laboratory per week. Meets General Education IVA or IVB.**

**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, interrelationships and distributional patterns. Students can not receive credit for both GEOG 104 and GEOG 105. **Three hours lecture, two hours laboratory per week. Meets General Education IVA or IVB.**

**107. WEATHER, HAZARDS AND CLIMATE CHANGE
3 hours credit**

A non-technical introduction to weather and its interconnectivity with humans and the built environment. Topics include hurricanes, thunderstorms, tornadoes, anthropogenic climate change, urban effects on the atmosphere and weather's impact on everyday life (e.g. sports, environmental hazards). **Three hours per week. Meets General Education IVB.**

**110. AMERICA'S NATIONAL PARKS
3 hours credit**

An examination of the varied and spectacular physical environments protected within the United States National Park System. The geology, geomorphology, weather, climate and biogeography of selected parks are examined with an eye toward the future of these national treasures. **Three hours per week. Meets General Education IVB.**

**111. INTRODUCTION TO OCEANS AND COASTS
3 hours credit**

The study of coastlines, coastal landforms, and the tectonic and oceanographic forces that shape them. One mandatory Saturday half-day field trip to Assateague Island is required. **Three hours per week. Meets General Education IVB.**

**141. CURRENT ISSUES IN EARTH SCIENCE
3 hours credit**

Teaches non-science majors how to critically evaluate contemporary earth science topics of public interest as reported in the media. Learn about the science behind issues, such as terminology, processes, data analysis and underlying assumptions. Differing viewpoints and ethical considerations are discussed. **Two hours lecture, two hours discussion per week. Meets General Education IVB.**

**150. ENVIRONMENTAL SCIENCE:
CONCEPTS AND METHODS
4 hours credit**

Explores global and regional environmental processes and systems, as well as the impact of humans on these systems. Addresses current environmental issues such as climate change, habitat loss and water pollution, emphasizing the role of science in identifying problems and finding solutions. May not receive credit for both BIOL 150 and GEOG 150. **Three hours lecture, two hours laboratory per week. Meets General Education IVA or IVB.**

**201. 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 IVA or IVB.**

**202. CULTURAL GEOGRAPHY
3 hours credit**

Examination of some of the basic concepts of human geogra-

phy. 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 IIIB or IIIC.**

**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 IIIB or IIIC.**

**204. STATISTICAL PROBLEM SOLVING IN GEOGRAPHY
4 hours credit**

Introduction to the basic principles of quantitative analysis in geography. Emphasis on the geographic applications of various techniques rather than on the underlying statistical theory. **Prerequisite:** MATH 155 or 213. **Three hours lecture, two hours laboratory per week.**

**219. MAP INTERPRETATION AND ANALYSIS
4 hours credit**

Introduction to mapping science principles and practice, focusing on the application of methods to produce hardcopy and digital maps. Topics include earth representation and map projections, field data collection utilizing ground survey, global positioning systems (GPS) and remote sensing, and map compilation and design within a geographic information system (GIS). **Three hours lecture, two hours laboratory per week.**

**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.**

**262. GEOGRAPHY OF SPORT
3 hours credit**

Training in methods of geographical study and analysis through a range of activities centered around the theme of sport and place. Topics include sport and culture, sport as industry, professional sports location patterns, place identity, market area analysis, sport of urban economic development strategy, politics of stadium location and funding, and (geo)politics of hosting and representation in international sporting events. **Three hours per week. Meets General Education IIIB or IIIC.**

**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 IIIB or IIIC.**

**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.**

303. URBAN GEOGRAPHY**3 hours credit**

Explores economic, cultural, social and political dynamics of cities – their location, functions and internal structures, including economic activities, housing and social geography. Topics include economic restructuring; suburbanization and urban sprawl; urban life; inner-city gentrification; and how issues of class, race and gender are embedded in the geographies of cities. **Prerequisite:** GEOG 100 or 101 or 102 or 203 or permission of instructor. **Three hours per week.**

304. DECISION MAKING WITH GIS**4 hours credit**

Overview of GIS technology and its use in decision making for various disciplines. The disciplines include social, health and environmental sciences, urban planning, and government operations. Includes three hours of lecture per week and a supplemental laboratory session where students perform hands-on laboratory exercises using GIS software. **Prerequisite:** GEOG 219. **Three hours lecture, two hours laboratory 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 URPL 308 and GEOG 308. **Prerequisite:** Sophomore standing. **Three hours per week.**

309. GEOGRAPHY OF THE MID-ATLANTIC**3 hours credit**

Study of the U.S. mid-Atlantic region encompassing human and physical aspects of its geography, particularly in the relationship between humans and their physical environment. Course has two field trips. **Prerequisite:** One physical geography/geology course and one human geography course. **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.**

311. COASTAL PROCESSES**3 hours credit**

A detailed study of coastlines, the physical processes that shape them and the scientific methodologies used to measure them. Two mandatory Saturday half-day field trips are required. **Prerequisite:** GEOG 111, GEOL 211. **Two hours lecture, two hours lab per week.**

312. SEVERE AND HAZARDOUS WEATHER**3 hours credit**

Examines the physical and societal aspects of severe and hazardous weather in an effort to better knowledge of the atmospheric environment around us. Specific topics include extratropical cyclones, thunderstorms, tornadoes, severe winter weather, hailstorms, lightening and tropical weather systems. Case studies are used to investigate human, economic and environmental consequences of severe and hazardous weather events. **Prerequisite:** GEOG 201. **Three hours lecture per week.**

314. TROPICAL METEOROLOGY**3 hours credit**

Examines the dynamics and processes of the tropical atmosphere, from localized trade wind convection to tropical cyclones. The role of tropical atmospheric processes in global climate variability also is investigated. **Prerequisite:** GEOG 201. **Three hours per week.**

315. TOPICS IN GIS MODELING**3 hours credit**

Analysis of the interaction between humans and their environment. Specific topics may include shoreline erosion, water pollution, land-use land-cover change, biodiversity losses, tsunamis, hurricanes and sea-level rise. Learn the analytical methods necessary to obtain, process and analyze a myriad of modern data concerned with the interface between human and natural landscapes. **Prerequisite:** College-level statistics or GEOG 219 or permission of instructor. **Three hours per week.**

316. BIOGEOGRAPHY**3 hours credit**

Study of spatial distribution of plants and animals, including the processes that led to those distributions. The course synthesizes knowledge from the fields of ecology, geology, climatology, paleontology and physical anthropology. Topics include patterns of biodiversity, evolution and extinction, communities and ecosystems, life on islands, earth history, paleoecology, human impacts and conservation. Two mandatory field trips to local natural areas. **Prerequisite:** A combined total of 12 hours in geography and/or biology, including at least one introductory physical geography course, or consent of the instructor. **Three hours lecture 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 geographical-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 designing maps. **Prerequisite:** GEOG 219. **Two hours lecture, two hours laboratory per week.**

321. REMOTE SENSING OF THE ENVIRONMENT**4 hours credit**

Examination of fundamental principles, history and applications of remote sensing technology to environmental studies. Emphasis on electromagnetic spectrum, aerial photography, photogrammetry, satellite imaging systems, digital image processing, and major applications of remote sensing in mapping and managing environmental problems. **Prerequisite:** Twelve hours in geography. **Three hours lecture, two hours laboratory per week.**

325. CONSERVATION AND RESOURCE MANAGEMENT**3 hours credit**

An integrative look at the co-evolution of resource exploitation, use and conservation, and the changing ideology that drives trends in resource management. Special emphasis on scalar dilemmas in resource management, the effective role of our legal infrastructure in resource management and shifting values regarding the role of human-nature interactions in America. **Prerequisite:** One physical geography/geology course and one human geography course. **Three hours per week.**

327. POLITICAL GEOGRAPHY

3 hours credit

Survey of the sub-discipline of political geography. Emphasis on spatial organization and conflict at various scales; geographies of elections; and analyses of international relations from a geographical perspective, with a consideration of geographic, economic and cultural aspects of global conflicts. **Prerequisite:** One of the following: GEOG 100, 101, 102 or 203; POSC 101 or 102; ECON 150, 211 or 212; or permission of instructor. **Three hours per week.**

328. APPLIED PLANNING

3 hours credit

Application of planning principles and theories to real world land-use issues. Particular attention is paid to the subdivision plat review process, zoning ordinances, and the role of citizens and local government in planning. Several actual planning case studies are examined. May not receive credit for both URPL 328 and GEOG 328. **Prerequisite:** URPL 308 or GEOG 308. **Three hours per week.**

333. SUSTAINABILITY AND GLOBAL DEVELOPMENT

3 hours credit

Analysis of concepts, ideologies and social trends that have generated regions referred to as the Global North and Global South. Examine human-nature interactions as they express themselves in demographics, resource distribution, economic disparity, neo-colonialism, energy consumption, food and water availability. **Prerequisites:** Junior standing, at least one human and/or physical geography/geology course. **Three hours lecture per week.**

363. CITIES OF THE MIDDLE EAST

3 hours credit

Discussion of cities of the Middle East through explaining city evolutions, contemporary structures and models. Explanations of how urban planning addresses city problems and responds to current challenges. May not receive credit for both URPL 363 and GEOG 363. **Prerequisite:** GEOG 100, 101, 102 or consent of instructor. **Three hours per week.**

389. REGIONAL FIELD STUDY OF THE UNITED STATES

3 hours credit

On-site study of the geography, history and culture of selected regions of the United States. Pre-tour lectures and other activities required. May be repeated once for credit. **Prerequisite:** Six hours in GEOG and/or GEOL or consent of instructor. **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:** Six hours in GEOG and/or GEOL or permission of instructor.

401. SOIL, WATER AND ENVIRONMENT

3 hours credit

Study of basic chemical and physical properties of soil, focusing on surface hydrology of small watersheds and the related techniques used in environmental planning. Most labs involve fieldwork **Prerequisites:** GEOG 201, 219, GEOL 103; or BIOL 310. **Two hours lecture, three hours laboratory per week.**

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. May not receive credit for both URPL 402 and GEOG 402. **Prerequisite:** URPL 308 or GEOG 308 or BIOL 310. **Three hours per week.**

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 ECONOMIC DEVELOPMENT

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. **Prerequisites:** GEOG 203, 308. **Three hours per week.**

408. SEMINAR IN URBAN THEORY

3 hours credit

An interdisciplinary course examining critical and descriptive theories to explain city development. Discussions of city evolutions, planning visions, and cultural, political, economic and global factors shaping cities. May not receive credit for both URPL 408 and GEOG 408. **Prerequisite:** GEOG 100 or 101 or 102 or 308 or URPL 308 or consent of instructor. **Three hours per week.**

409. DIMENSIONS OF CLIMATIC CHANGE

3 hours credit

A revolving set of topics presented by geography faculty or invited speakers related to the scientific or socio-economic effects of climatic change on modern society. **Prerequisites:** C or better in GEOG 201 and one course from the following: GEOL 206, GEOL 405, GEOG 402, GEOG 403, GEOG 410, GEOG 413. **Two hours seminar and one hour online session per week.**

410. METEOROLOGY

3 hours credit

Analysis of physical processes and dynamics of the atmosphere. Topics include upper atmospheric flow, forecasting and severe weather. **Prerequisite:** GEOG 201. **Three hours per week.**

411. GEOMORPHOLOGY

4 hours credit

Study of the surface of the earth and the geologic processes that modify it. Topics include the weathering and erosion of rocks, the deposition of sediments, the classification of landforms and the long-term evolution of landscapes. One three-day field-trip is optional. **Prerequisite:** GEOL 103 and junior-level standing. **Three hours lecture, two hours lab per week.**

412. WEATHER ANALYSIS AND FORECASTING

3 hours credit

Introduction to the basic tools of weather analysis and techniques of weather forecasting. Acquire the skills needed to analyze and interpret surface and upper-air observations, data from satellites and radar, atmospheric soundings, and severe weather indices. Make forecasts of temperature, precipitation and other meteorological conditions. **Prerequisites:** GEOG 201, 410. **Three hours lecture 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 agriculture, and energy use. **Prerequisite:** GEOG 201 or permission of instructor. **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

1-3 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.

416. SMART GROWTH

3 hours credit

Explanations of smart growth programs addressing urban challenges such as sprawl, lack of open space and central city decline. Introduction of early efforts to manage urban growth and growth management programs at the state and local levels. May not receive credit for both URPL 416 and GEOG 416. **Prerequisite:** URPL 308, or GEOG 308 or permission of instructor. **Three hours per week.**

417. WATER RESOURCES

3 hours credit

Exploration of water resources in America that looks at water in all of its facets as a physical resource and a nexus of human-environment interactions. Designed for multiple disciplines and presumes a variable knowledge base at the beginning. Weaving together the hydrologic flow of water and the social structures that capture, divert, buy, sell, steal, manipulate and exploit water resources form the basis of exploration. **Prerequisite:** One course in physical geography and one course in human geography and junior standing. **Three hours per week.**

419. ADVANCED GEOGRAPHIC INFORMATION SCIENCE

4 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

1-3 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.

435. GIS PROGRAMMING

3 hours credit

Theory and application of computer programming solutions in geography. Focuses on developing custom computer programs addressing classical problems in geography and spatial analysis not ordinarily solved using out-of-the-box GIS software. Introduction to basic programming techniques, object model diagrams, component object modeling (COM) and spatial databases. **Prerequisite:** GEOG 320 and COSC 117, 118 or 120. **Three hours per week.**

450. TOPICS IN GEOGRAPHY

1-4 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. **One to four 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.

501. SOIL, WATER AND ENVIRONMENT

3 hours credit

Study of basic chemical and physical properties of soil, focusing on surface hydrology of small watersheds and the related techniques used in environmental planning. **Prerequisite:** Graduate standing and GEOL 103 or permission of instructor. **Two hours lecture, two hours laboratory or one field trip per week.**

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 reactions to hazards will be emphasized. **Prerequisite:** Graduate standing. **Three hours per week.**

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.**

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.**

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.**

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.**

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 weathering and erosion of rocks, the deposition of sediments, the classification of landforms and the long-term evolution of landscapes. One three-day weekend field-trip is part of the course. **Prerequisites:** Graduate standing and GEOL 103 or permission of instructor. **Three hours lecture 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
1-3 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.

519. ADVANCED GEOGRAPHIC INFORMATION SCIENCE
4 hours credit

Study of current theories and development trends in GIS technology. Emphasis on hands-on working knowledge utilizing ARC/INFO software. **Prerequisites:** Graduate standing and permission of instructor. **Three hours lecture, two hours laboratory per week.**

522. READINGS IN GEOGRAPHY
1-3 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.

535. GIS PROGRAMMING
3 hours credit

Theory and application of computer programming solutions in geography. Focuses on developing custom computer pro-

grams addressing classical problems in geography and spatial analysis not ordinarily solved using out-of-the box GIS software. Introduction to basic programming techniques, object model diagrams, component object modeling (COM) and spatial databases. **Prerequisites:** Graduate standing and permission of department chair. **Three hours per week.**

538. GIS LEADERSHIP
3 hours credit

Training in leadership theory as a foundation in order to build skills in communication, negotiation and managing change. Examine leadership concepts in terms of managing GIS organizations, including ad hoc organizations such as open-source projects. Topics include leadership approaches and theory, team building, ethics, communication, change management, and negotiation. **Prerequisites:** Graduate standing and permission of graduate director. **Three hours per week.**

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.

619. MANAGING GISYSTEMS
3 hours credit

Study of strategies for successful GIS management and implementation in an organization-wide context. Implementation management strategies are introduced through systematic user needs assessment, requirements specification, database design, application development, pilot project testing, implementation, operation and maintenance. Public policy requirements and legal responsibilities for geographic records management are also examined. **Prerequisites:** Graduate standing and GEOG 419 or GEOG 519. **Three hours per week.**

630. GISYSTEMS AND PUBLIC ADMINISTRATION
3 hours credit

Examines practical approaches for incorporating geographic information systems (GIS) technology into a public administration setting. Discusses implementation strategies, cost-benefit analyses, and strategies for overcoming technical and organizational boundaries. Case studies illustrate how public officials have successfully applied GIS to their specific needs. **Prerequisites:** Graduate standing, POSC 540, and GEOG 419 or GEOG 519. **Three hours per week.**

640. GISYSTEMS CO-OPERATIVE EXPERIENCE
6 hours credit

A directed field study program which provides students with an opportunity to apply GIS skills acquired in the classroom to real-world projects in the community. Additionally, a weekly seminar discussion gives participants a chance to peer-review the co-operative projects as well as receive expert guidance. Students are under the supervision of an advisor from the GIS faculty while participating in a short-term experience program in a business or government agency. **Prerequisites:** GEOG 619, 630. **Six hours per week.**

650. CAPSTONE GISYSTEMS SEMINAR**3 hours credit**

Summarizes and synthesizes the skills, knowledge and experience gained in the program. Students review a peer GIS implementation project, organizing and completing an assessment of the likelihood that the project achieved its goals. In addition, students support their analyses using the most current literature regarding GIS and public administration, emphasizing their particular area of interest. **Prerequisite:** GEOG 640. **Three hours per week.**

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 IVA or IVB.**

206. HISTORICAL GEOLOGY**4 hours credit**

Study of the history of the earth and the principles used to decipher the earth's past from rock record. Includes study of stratigraphic principles, key fossil groups, and relative and absolute dating techniques. One weekend field trip is required. **Prerequisite:** GEOL 103 with C or better. **Three hours lecture, two hours laboratory per week.**

211. SEDIMENT ANALYSIS**1 hour credit**

Lab-based course designed to introduce students to the most common methodologies field scientists use to measure, analyze and classify sediments. **Prerequisite/Corequisite:** GEOL 103 or permission of instructor. **Two hours laboratory per week.**

306. INTRODUCTION TO INVERTEBRATE PALEONTOLOGY**3 hours credit**

The systematic study of the fossil preservation process and the major classes of invertebrate fossils and plants commonly preserved in the fossil record. **Prerequisite:** GEOL 206 or BIOL 213. **Two hours lecture, three hours laboratory per week.**

313. MINERALOGY AND OPTICAL PETROLOGY**4 hours credit**

Introduces students to the fundamentals of mineralogy and petrology, including crystallography, crystal chemistry and optical mineralogy as well as the occurrence and identification of sedimentary, igneous and metamorphic rocks in thin section. Learn how to use a petrographic microscope to identify minerals and rocks and understand their occurrence in the context of the tectonic setting from which they are derived. **Prerequisites:** GEOL 103, CHEM 121. **Three hours lecture, two hours laboratory per week.**

322. GEOLOGICAL OCEANOGRAPHY**3 hours credit**

Explore the major features of the ocean basins and seafloor as well as the processes responsible for their formation. Discuss geological and geophysical techniques for mapping and understanding these processes. **Prerequisite:** GEOG 111. **Three hours per week.**

336. STRATIGRAPHY AND SEDIMENTOLOGY**3 hours credit**

Introduces students to the fundamentals of stratigraphy and sedimentology, and places a particular emphasis on the iden-

tification, occurrence, and analysis of sediments and sedimentary rock facies. Numerous field trips apply lecture content in the field to reconstruct Appalachian geology. Learn how to map geologic rock formations in the field and measure stratigraphic section, two skills that are integral to any professional geologist and research geologist. **Prerequisites:** GEOL 206, 211. **Three hours per week.**

405. ENVIRONMENTAL GEOLOGY**4 hours credit**

Study of natural hazards, human-induced environmental problems, and the dynamic interaction processes between humans and the environment. Emphasis placed on understanding of major issues in environmental hazards, natural resources (water, mineral and energy), waste disposal, sustainable development and emergency management. **Prerequisite:** GEOL 103 or GEOG 104 or 105. **Three hours lecture, two hours laboratory per week.**

407. HYDROGEOLOGY**3 hours credit**

Introduction to the geological and hydrological processes operating at and within Earth's surface and subsurface. Focus on practical applications of natural flow systems and principles of fluid flow through porous media, including an in-depth study of groundwater flow concepts, such as flow nets, hydraulic potential and saturated and unsaturated flow; solute transport; and quantitative hydrogeologic methods for assessing groundwater quality, quantity and movement. **Prerequisites:** GEOL 103, MATH 155, junior level standing, or permission of instructor. **Three hours per week.**

420. STRUCTURAL GEOLOGY**4 hours credit**

Introduction to processes controlling rock deformation. Focus on a variety of concepts, including rock mechanics, stress, strain and geologic structures. Particular emphasis is placed on interpreting geological structures through a variety of field- and laboratory-based analyses and observations. **Prerequisites:** GEOL 206, MATH 155 (or higher), or permission of instructor. **Six hours per week.**

450. TOPICS IN GEOLOGY**1-4 hours credit**

Analysis of a selected geologic topic to be entered on the student's transcript. May be taken three times for credit under different subtitles. **Prerequisite:** GEOL 103 and junior standing or permission of instructor. **One to four hours per week.**

465. EARTH SCIENCE SEMINAR**1 hour credit**

Discussions of the scientific process and timely topics in earth science and related fields. Requires participation and presentations. **Prerequisite:** GEOL 103 and junior standing or permission of instructor. **Two hours per week.**

505. ENVIRONMENTAL GEOLOGY**4 hours credit**

Study of natural hazards, human-induced environmental problems, and the dynamic interaction processes between humans and the environment. Emphasis placed on understanding of major issues in environmental hazards, natural resources (water, mineral and energy), waste disposal, sustainable development and emergency management. **Prerequisites:** Graduate standing, GEOL 103, GEOG 104 or 105 or permission of instructor. **Three hours lecture, two hours laboratory per week.**

GERMAN (GERM)

101. ELEMENTARY GERMAN I 4 hours credit

Beginning spoken and written German with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102. ELEMENTARY GERMAN II 4 hours credit

Continued skill development in spoken and written German with further study of major structures. **Prerequisite:** GERM 101 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

201. INTERMEDIATE GERMAN 4 hours credit

Continued development and refinement of language skills with emphasis on reading, writing and vocabulary development. **Prerequisite:** GERM 102 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

202. INTERMEDIATE AND APPLIED GERMAN 4 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. **Prerequisite:** GERM 201 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

310. ORAL AND WRITTEN COMPOSITION 4 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. **Prerequisite:** GERM 202 or appropriate score on department placement exam. **Three hours per week with enhancement.**

312. GERMAN CONVERSATION 4 hours credit

Develops confidence and correctness in spoken German through practice in pronunciation, dialogues, discussions and oral reports and presentations. **Prerequisite:** GERM 202 or appropriate score on department placement exam. **Three hours per week with enhancement.**

350. GERMAN SHORT STORIES 4 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 103. **Three hours per week with enhancement. Meets General Education IB.**

496. GERMAN INDEPENDENT STUDY 1-4 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 SCIENCE (HLSC)

301. HUMAN PATHOPHYSIOLOGY FOR HEALTHCARE MAJORS 4 hours credit

Overview of human disease by cause, clinical manifestations and diagnostic criteria. Topics chosen to benefit healthcare majors. **Prerequisites:** C or better in BIOL 215, 216. **Three hours lecture, three hours lab per week.**

498. SPECIAL LECTURE AND LAB TOPICS IN HEALTH SCIENCES 1-4 hours credit

Lecture and laboratory study of a specific aspect of biomedical research or health care. Topic varies semester to semester. May be repeated with different topics with no limit. **Prerequisite:** Permission of instructor. **Two to six hours per week.**

499. SPECIAL TOPICS IN HEALTH SCIENCES 1-4 hours credit

Study of a specific aspect of biomedical research or health care. Topic varies semester to semester. May be repeated with different topics with no limit. **Prerequisite:** Permission of instructor. **One to four hours per week.**

598. SPECIAL LECTURE AND LAB TOPICS IN HEALTH SCIENCES 1-4 hours credit

Lecture and laboratory study of a specific aspect of biomedical research or health care. Topic varies semester to semester. May be repeated with different topics with no limit. **Prerequisite:** Permission of instructor. **Two to six hours per week.**

599. SPECIAL TOPICS IN HEALTH SCIENCES 1-4 hours credit

Study of a specific aspect of biomedical research or health care. Topic varies semester to semester. May be repeated for different topics with no limit. **Prerequisite:** Permission of instructor. **One to four hours per week.**

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.**

110. FOUNDATIONS OF COMMUNITY HEALTH EDUCATION 4 hours credit

Introduces fundamental concepts and skills that form the basis of community health education and health promotion. Historical and contemporary philosophies, principles of the profession, and competencies related to school and community settings are discussed, as well as current health issues. In addition to content knowledge, develop skills in needs assessment and objective writing for community health programming. **Three hours per week with enhancement.**

225. HEALTH BEHAVIOR 4 hours credit

Examination of health behavior theories and models of behavior change. Reviews the major theories of health behavior and strategies used to implement health interventions for individuals and organizations. **Prerequisite:** Completion of at least 30 credit hours. **Three hours per week with enhancement.**

230. CHRONIC AND COMMUNICABLE DISEASES**4 hours credit**

Overview of chronic and communicable diseases. Examination of the processes used in modern society to assist in identification, prevention and control of disease. Emphasis placed on information and concepts required as foundation knowledge for school health educators. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** HLTH 110 with C or better or permission of instructor. **Three hours per week with enhancement.**

240. DRUG EDUCATION**4 hours credit**

Examination of the social, psychological, physical and emotional aspects of alcohol, tobacco, over-the-counter drug and illegal drug use and associated behaviors. Emphasis placed on information and concepts required as foundation knowledge for school health educators. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** HLTH 110 with C or better or permission of instructor. **Three hours per week with enhancement.**

260. HEALTH LITERACY AND COMMUNICATION**4 hours credit**

Explore the link between health-related literacy and health in the U.S. Comprehend the connection between health disparities and low levels of health literacy. Develop the knowledge and skills needed to create effective health communication campaigns that reach a variety of target audiences in the attempt to lessen gaps in health status. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** HLTH 200 with C or better. **Three hours per week with enhancement.**

311. HUMAN SEXUALITY EDUCATION**4 hours credit**

Provides strategies for teaching about human sexuality at individual and group levels in a variety of settings. Topics covered will include content, issues, methodology and materials relating to human sexuality education. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** Permission of instructor. **Three hours per week with enhancement.**

315. COMMUNITY NUTRITION**4 hours credit**

Examination of the role of nutrition in promoting, maintaining and improving health in the community, including relevant programs and policies. Covers biological and biochemical principles of human nutrition, including macro- and micronutrient food sources and metabolism, as well as sociocultural and institutional influences on nutritional practices. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** BIOL 216 with C or better. **Three hours per week with enhancement.**

325. PLANNING AND ASSESSING HEALTH PROGRAMS**4 hours credit**

Overview of needs assessment, program planning and evaluation of health education programs. Provides candidates with the opportunity to plan, implement and evaluate a health education experience. Emphasis placed on information and concepts required for school health educators. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** HLTH 225 with C or better. **Three hours per week with enhancement.**

326. MEASUREMENT AND EVALUATION OF HEALTH PROGRAMS**4 hours credit**

Covers principles and methods for monitoring implementation of health education programs and assessing their impact. Focuses on development and selection of valid and reliable measures and use of appropriate statistics. **Major**

Prerequisite: Admission to Professional Program and HLTH 325. **Minor/Non-Major Prerequisite:** MATH 155 and HLTH 325 with C or better. **Three hours per week with enhancement.**

330. PRINCIPLES OF EPIDEMIOLOGY**4 hours credit**

Covers historical foundations of epidemiology; distributions and causes of disease by time, place and person; epidemiological study designs; and special issues in infectious and non-infectious disease epidemiology. Learn epidemiology's role in public health practice by identifying and tracking disease patterns to assist in disease prevention programming. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** MATH 155 and HLTH 230 with C or better. **Three hours per week with enhancement.**

360. SCHOOL HEALTH AND READING METHODS I**4 hours credit**

Analysis of middle and high school health education instructional planning, materials and teaching strategies. Examination of literacy needs of diverse student populations including instructional strategies in reading and writing in the content area in accordance with Maryland State Voluntary Curriculum for Reading/English Language Arts. **Prerequisite:** Admission to the Professional Teacher Education Program. **Prerequisite/Corequisite:** EDUC 319 or 318. **Three hours lecture and three hours field experience per week. (Spring semester only)**

401. COMMUNITY HEALTH**4 hours credit**

Study of the community dynamics as it affects the health status of community residents. Examine the role that various agencies' policies and practices have in maintaining optimal health and well-being of community members. Emphasis placed on information and concepts required as foundation knowledge for school and community health educators. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** HLTH 110 with C or better and completion of at least 60 credit hours. **Three hours per week with enhancement.**

450. U.S. HEALTHCARE AND PUBLIC HEALTH**4 hours credit**

Explores the fundamental characteristics and organizational structures of the U.S. health system as well as the differences in systems in other countries. Learn basic concepts of legal, ethical, economic and regulatory dimensions of health care and public health policy and the roles, influences and responsibilities of the different agencies and branches of government. **Major Prerequisite:** Admission to Professional Program. **Minor/Non-Major Prerequisite:** ENGL 103 and HLTH 110 with C or better. **Three hours per week with enhancement.**

461. SCHOOL HEALTH AND READING METHODS II**4 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 with an emphasis on strategies, skills and instruction in reading in accordance with the Maryland State Voluntary Curriculum for Reading/English Language Arts. Required classroom visitations and field experience as necessary to complete assignments. **Prerequisites:** Admission to Professional Teacher Education Program, HLTH 360. **Prerequisite/Corequisite:** SCED 367. **Three hours lecture and six hours internship per week. (Fall semester only)**

470. INTERNSHIP I IN HEALTH EDUCATION**6 hours credit**

Directed student teaching experience under the supervision of the public school mentor teacher and University supervisor. One-half semester in middle school or high school teaching. Credit may not be received for both EDUC 462 and HLTH 470

471. INTERNSHIP II IN HEALTH EDUCATION**6 hours credit**

Directed student teaching experience under the supervision of the public school mentor teacher and University supervisor. One-half semester in middle school or high school teaching. Credit may not be received for both EDUC 462 and HLTH 471.

480. INTERNSHIP IN COMMUNITY HEALTH**12 hours credit**

Practical health education experience under the supervision of a local, professional mentor and University supervisor. A minimum of 450 supervised hours of service in a community-based health setting. **Prerequisites:** Completion of all required major core curriculum courses with a C or better and a cumulative GPA of at least 2.50. **Thirty-six hours per week.**

490. SELECTED TOPICS IN HEALTH**3 hours credit**

Investigates themes and issues related to the health profession. Topics will vary each semester. May be repeated once under different course subtitles for a total of six credits. **Prerequisite:** Designated by topic. **Three hours per week.**

HISTORY (HIST)**101, 102. WORLD CIVILIZATIONS****4 hours credit each**

Examination of global progress in major civilizations from pre-historic times to the present emphasizing the economic, social, cultural, intellectual and political trends motivating human beings. Note: HIST 101 and 102 do not have to be taken in sequential order. **Three hours per week with enhancement. Meets General Education IIA or IIB.**

103. FIRST-YEAR SEMINAR IN WORLD HISTORY**4 hours credit each**

Topics change each semester. Requires extensive reading, writing and class discussion on a topic in world history. **Four hours per week. Meets General Education IIA or IIB.**

201, 202. HISTORY OF THE UNITED STATES**4 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 with enhancement. Meets General Education IIB.**

210. INTRODUCTION TO WORLD RELIGIONS**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

213. INTRODUCTION TO GENDER AND SEXUALITY STUDIES**4 hours credit**

Examines the historic roots of gender and sexuality studies, how various disciplines approach gender and sexuality issues and how concepts of gender and sexuality affect lives. May not be taken for credit if student has credit for GSST 213 or IDIS 213. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

215. TOPICS IN HISTORY**4 hours credit**

Historical study of particular periods; groups; economic, intellectual and/or social movements; and institutions. May be taken twice under different course titles. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

224. HITLER AND THE THIRD REICH**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

225. HOLOCAUST: THE EXTERMINATION OF THE EUROPEAN JEWS**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

250. AMERICA IN THE 1970S**4 hours credit**

Archie Bunker, bell bottoms, *The Exorcist*, Nixon, *Grease* and disco—the 1970s conjure memories of such personalities, fads and other pop-cultural phenomena. This introductory course surveys American history during the so-called "Me Decade" using films, documentaries, readings, discussions, lectures and primary sources to explore political, diplomatic, economic, social, intellectual and cultural trends. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

300. ARCHAEOLOGY OF THE CHESAPEAKE IN THE ATLANTIC WORLD**4 hours credit**

Traces the emergence and development of various Chesapeake societies and institutions, situating them in broader Atlantic contexts. Through the lens of archaeology, examine the complex histories of interaction, cultural and biological exchanges between Natives, Europeans and Africans from first contact to the present. Explore topics such as colonialism, capitalism, enslavement and the rise of the Atlantic plantation complex. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

301. HISTORY OF AMERICAN BUILDINGS**4 hours credit**

Survey of the history of American building traditions, considering construction, form and style in historical, social, economic and cultural contexts. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

302. COLONIAL AND REVOLUTIONARY AMERICA (1607-1783)**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

**306. THE EMERGENCE OF A NEW NATION:
U.S. (1789-1860)**

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

308. SECTIONAL CONFLICT AND CIVIL WAR

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

309. RECONSTRUCTION AND GILDED AGE

4 hours credit

Study of the policies and application of presidential and congressional reconstruction; examination of the influence of the post-Civil War industrial boom on politics and society. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

310. HISTORY OF ENGLAND TO 1702

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

**311. HISTORY OF ENGLAND AND GREAT BRITAIN,
1702 TO THE PRESENT**

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

312. HISTORY OF IRELAND IN MODERN TIMES

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

**313. HISTORY OF SCOTLAND AS
AN INDEPENDENT KINGDOM**

4 hours credit

Surveys Scottish history from the age of the Picts and Roman contact through the fall of Bonnie Prince Charlie at Culloden in 1746. Emphasizes the creation of a Scottish state, Scottish religious and cultural developments, and the path toward the Union of the Crowns and the creation of a United Kingdom with England. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

314. AFRICAN-AMERICAN HISTORY TO 1865

4 hours credit

Explores African-American history from the Colonial period to

1865. Highlights the development and perpetuation of slavery, the vibrancy of free black communities, the rise of anti-slavery leaders and movements, and social conditions experienced by African Americans. May not receive credit for both HIST 444 and HIST 314. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

315. AFRICAN-AMERICAN HISTORY FROM 1865

4 hours credit

Explores African-American history from 1865 to present. Focuses on issues related to political activism, racial activism, gender, violence, labor organizing, education and art. May not receive credit for both HIST 445 and HIST 315. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

318. HISTORY OF THE ANCIENT NEAR EAST

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

319. ROMAN HISTORY

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

320. HISTORY OF THE EARLY CHRISTIAN CHURCH

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

321. HISTORY OF MEDIEVAL EUROPE

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

322. RENAISSANCE TO REVOLUTION (1450-1815)

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

323. EUROPE IN THE 19TH CENTURY

4 hours credit

Analysis of developments from the time of Napoleon to 1900 with emphasis on the industrial revolution and imperialism. Considers reorganization of the European state system and origins of the great ideological conflicts. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

324. GERMAN HISTORY SINCE 1815**4 hours credit**

History of German-speaking Europe from the Napoleonic period to the present concentrating on the problems of German nationalism within the framework of modern European society. Social, economic and cultural developments also emphasized. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

325. HISTORY OF EUROPEAN REVOLUTIONS SINCE 1815**4 hours credit**

Examination of representative revolutions since the time of Napoleon. Assesses the influence of the French revolution on 19th century uprisings; explores the changed character of revolutions in the 20th century; attempts to construct a revolutionary model. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

326. THE FRENCH REVOLUTION AND NAPOLEON, 1789-1815**4 hours credit**

Study of the French Revolution and the Napoleonic period. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

327. THE HABSBURG EMPIRE, 1740-1918**4 hours credit**

Examination of the Habsburg lands and peoples emphasizing the political, cultural, economic, dynastic and ethnic problems of the monarchy. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

330. PROSEMINAR IN HISTORY**4 hours credit**

Survey of selected historians and their philosophies of history. Guides students in the preparation of a formal research paper using primary and secondary sources. **Prerequisites:** HIST 101, 102 and 201 or 202. **Three hours lecture, one hour laboratory per week. Meets General Education IIB. (Required C or better.)**

332. MODERN MEXICO**4 hours credit**

Mexican history since 1815 with special attention to independence, caudillismo, relations with the United States, revolution, democracy, socioeconomic inequality and ethnicity. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

333. MODERN BRAZIL**4 hours credit**

Brazilian history since 1822 with special attention to imperial organization, slavery and abolition, populism, military rule, socioeconomic inequality, and economic development. **Three hours per week with enhancement. Meets General Education IIB.**

334. COLONIAL LATIN AMERICA**4 hours credit**

History of Colonial Latin America, focusing on the interaction between various Native American groups and the Spanish and Portuguese, as well as political and economic movements which accompanied colonization. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

335. MODERN LATIN AMERICA 1800-PRESENT**4 hours credit**

Survey of Latin American history from the age of independence from Spain and Portugal through the early 2000s. The primary focus is the origins and development of natural wealth and social deprivation in political, social and cultural developments in several different regions. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

340. HISTORY OF AFRICA TO 1870**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

341. HISTORY OF AFRICA: 1870-PRESENT**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

342. HISTORY OF INDIA TO 1857**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

343. HISTORY OF INDIA: 1857 TO PRESENT**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

350. THE MIDDLE EAST TO 1800**4 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 Caliphates, Persia and the Ottomans. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

355. THE MIDDLE EAST SINCE 1800**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

362. CHINESE CIVILIZATION**4 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. **Prerequisite:** Sophomore standing or permission of

instructor. **Three hours per week with enhancement. Meets General Education IIB.**

363. JAPANESE CIVILIZATION

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

364. MODERN JAPAN

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

370. GREEK HISTORY

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

371. INTRODUCTION TO CLASSICAL MYTHOLOGY

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

375. TOPICS IN AMERICAN STUDIES

4 hours credit

Historical study of a particular aspect of American society and culture. May be taken twice under different course titles. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

376. VIOLENCE AND NONVIOLENCE IN AMERICA

4 hours credit

Explores the paradoxical history of violence and nonviolence in America through lectures, readings and films. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

377. WOMEN IN EARLY AMERICAN HISTORY

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

378. WOMEN IN MODERN AMERICA

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

379. WOMEN AND FAMILY IN EUROPE AND THE UNITED STATES

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

380. THE AMERICAN MILITARY EXPERIENCE

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

382. AMERICAN RELIGIOUS HISTORY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

383. HISTORY OF AMERICAN ENTERPRISE

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

384. NATIVE AMERICAN HISTORY

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

386. WILDERNESS AND U.S. CULTURE, 1492-PRESENT

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

387. RACISM AND DISCRIMINATION

4 hours credit

Multiperspective historical examination of the nature, origins and growth of racism and discrimination in America, with particular emphasis on the 20th century. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

388. CIVIL RIGHTS IN AMERICAN HISTORY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

389. U.S. ENVIRONMENTAL HISTORY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

390. STUDIES IN WESTERN EUROPE

4 hours credit

Focused study on particular periods, places, trends or problems in Western Europe. May be taken twice under different course titles. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

392. GLOBAL ENVIRONMENTAL HISTORY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

**395. MATERIAL CULTURE STUDIES
IN AMERICAN HISTORY**

4 hours credit

Introduction to the specialized study of the American past through examination of cultural artifacts and documents relating to them. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

399. INTERNATIONAL FIELD STUDY

4-8 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:** Sophomore standing or permission of instructor. **Meets General Education IIB.**

400. HISTORY OF MARYLAND

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

401. HISTORY OF U.S. FOREIGN RELATIONS

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

405. THE UNITED STATES IN THE 20TH CENTURY I

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

406. THE UNITED STATES IN THE 20TH CENTURY II

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

407. THE WESTWARD MOVEMENT

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

408. HISTORY OF THE SOUTH

4 hours credit

History of the South from the colonial period to the present, covering developments in politics, economics, culture and society. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

**412, 413. SOCIAL AND CULTURAL HISTORY
OF THE UNITED STATES I AND II**

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

415 HISTORY AND FILM

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education requirement IIB.**

417. HISTORY OF SCIENCE AND TECHNOLOGY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

421. EUROPE IN THE 20TH CENTURY WORLD

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

422. THE IMMIGRANT IN AMERICAN HISTORY**4 hours credit**

Explore the history of immigration and ethnicity during the 19th and 20th centuries with an emphasis on socio-cultural dimensions of the immigrant experience, and on historical debates on citizenship, national identity, legislation, work and family life, and ethnic identity. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

423. IMPERIAL RUSSIA**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

424. MODERN RUSSIA**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

430. RESEARCH SEMINAR CAPSTONE**4 hours credit**

Engage the history and historiography of a specific topic, period, country, region or theme. Under the guidance of the instructor, deploy and hone research, writing, critical thinking and communication skills, and produce a substantial research paper or project. Topics vary. May be taken twice under different course titles. **Prerequisites:** At least five history courses, including HIST 330, or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

433. HISTORY OF TUDOR-STUART BRITAIN**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

435. SENIOR THESIS**4 hours credit**

Individual research and preparation of a thesis by history majors. **Prerequisite:** Permission of department chair. **Three hours per week with enhancement.**

436. WORKERS AND WORK IN MODERN AMERICA**4 hours credit**

Explore the history of the American worker in 19th and 20th centuries with an emphasis on the changing nature of work itself, the labor movement, working-class protest and identity, issues of class, gender and race, and a consideration of current debates on unions, meaningful work and deindustrialization. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

438. AMERICA IN THE GREAT DEPRESSION**4 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. **Prerequisite:** HIST 330 or permission of instructor. **Three hours per week with enhancement.**

440. MINORITY GROUPS IN UNITED STATES HISTORY**4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

446. READINGS IN AFRICAN-AMERICAN HISTORY**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

451. WORLD WAR I**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

452. THE SECOND WORLD WAR: A GLOBAL HISTORY**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

453. THE COLD WAR: A GLOBAL HISTORY**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

460. HISTORY OF CHINA SINCE 1800**4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

465. MONGOL WARLORD**4 hours credit**

Examines the meteoric rise and fall of the world's largest empire, its impact, and the legacy on the large areas of Europe, the Middle East, and East and Central Asia. **Three hours per week with enhancement. Meets General Education IIB.**

470. HISTORY OF THE EARLY ROMAN EMPIRE

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

471. BRONZE AGE AEGEAN

4 hours credit

Study of the Bronze Age Aegean archaeology of the Minoan, Mycenaean and Trojan civilizations. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

472. STUDIES IN CLASSICAL ARCHAEOLOGY

4 hours credit

Assorted topics and archaeological sites of the ancient Mediterranean world (Crete, Greece and Italy). May be taken twice under different subtitles. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

473. ROMAN ARCHAEOLOGY

4 hours credit

Study of Roman archaeology from the early Iron Age through the Republican and Imperial periods. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

474. HISTORY OF ANCIENT EGYPT

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

475. GREEK ARCHAEOLOGY

4 hours credit

Study of Greek archaeology from the Protogeometric and Archaic periods through the Classical (Hellenic) and Hellenistic eras. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

477. MILITARY HISTORY OF THE MODERN WORLD

4 hours credit

Examines the military history of the modern world from 1500 AD to the present. The focus is on the strategy and tactics used by modern armies, how these affected the lives of populations and how new developments in these fields have influenced the history of the modern world. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement.**

478. ANCIENT MILITARY HISTORY

4 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:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

479. MEDIEVAL MILITARY HISTORY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

480. MUSEUM STUDIES

4 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. **Prerequisite:** Written approval of department chair to register. **Three hours per week with enhancement. Meets General Education IIB.**

483. ENVIRONMENTAL HISTORY OF DELMARVA

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

484. SEMINAR IN LATIN AMERICAN HISTORY

4 hours credit

Explores through readings, discussion and research basic problems in Latin American history. The period or topics studied are selected by the instructor. May be taken twice under different course subtitles. **Prerequisite:** HIST 330 or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

490. STUDIES IN HISTORY

4 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. **Prerequisite:** Sophomore standing or permission of instructor. **Three hours per week with enhancement. Meets General Education IIB.**

496. INDEPENDENT STUDY/HISTORIOGRAPHY

4 hours credit

Advanced students will read in depth on a chosen subject under the guidance of a faculty mentor. Focus is on secondary 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

4 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**1-4 hours credit**

This course is intended to provide advanced undergraduate history majors with the opportunity to gain professional experience 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 development in history related fields or for graduate study. **Prerequisites:** HIST 330 and permission from instructor or department chair.

499. HONORS**4 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, 20 hours of coursework 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, institutions and contributions made in Maryland and by Maryland to 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, 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.**

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.**

522. THE IMMIGRANT IN AMERICAN HISTORY**3 hours credit**

Explores the history of immigration and ethnicity during the 19th and 20th centuries with an emphasis on socio-cultural dimensions of the immigrant experience, and on historical debates on citizenship, national identity, legislation, work and family life, and ethnic identity. **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.**

536. WORKERS AND WORK IN MODERN AMERICA**3 hours credit**

Explores the history of the American worker in 19th and 20th centuries with an emphasis on the changing nature of work itself; the labor movement; working-class protest and identity; issues of class, gender and race; and a consideration of current debates on unions, meaningful work and deindustrialization. **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.**

565. MONGOL WARLORD

3 hours credit

Examines the meteoric rise and fall of the world's largest empire, its impact, and the legacy on the large areas of Europe, the Middle East, and East and Central Asia. **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.**

577. MILITARY HISTORY OF THE MODERN WORLD

3 hours credit

Examines the military history of the modern world from 1500 AD to the present. The focus is on the strategy and tactics used by modern armies, how these affected the lives of populations and how new developments in these fields have influenced the history of the modern world. **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.**

625. INTERNSHIP

3 hours credit

Provides the opportunity to gain professional experience in a history-related field under the supervision of an on-site supervisor and a faculty member. Internships in public history, museum studies, archival and library science, non-profit, history education, and cultural preservation are particularly suitable. Open to all M.A.-level students and may count as one of the five required 600-level courses toward the degree requirements. May be taken only once. **Prerequisites:** HIST 601, minimum of nine credit hours completed in the program, approval of the graduate director. **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 631. Permission of the graduate director. **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.

HONORS (HONR)

111. CRITICAL THINKING AND WRITING

4 hours credit

Examines processes for developing clear and sound arguments. Emphasizes critical thinking, writing, oral debate information literacy and research skills. **Prerequisite:** Admission to the Honors Program. **Three hours per week with enhancement. Meets General Education IA.**

112. ISSUES IN THE SOCIAL SCIENCES

4 hours credit

Introduces students to fundamental aspects of the social sciences through a study of a particular issue chosen from a range of disciplines. May be taken up to three times under different topics. **Prerequisite:** Admission to the Honors Program. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

211. ISSUES IN THE HUMANITIES

4 hours credit

Introduces students to fundamental aspects of the humanities through a study of a particular cultural issue chosen from a range of disciplines. May be taken up to three times under different topics. **Prerequisite:** Admission to the Honors Program. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

212. ISSUES IN THE NATURAL SCIENCES

4 hours credit

Introduces students to fundamental aspects of the natural sciences through a study of a particular scientific issue chosen from a range of disciplines. May be taken up to three times under different topics. **Prerequisite:** Admission to the Honors Program. **Three hours per week with enhancement. Meets General Education IVB.**

311. HONORS INTERDISCIPLINARY SEMINAR

4 hours credit

Addresses topics that transcend individual disciplinary boundaries. Taught by professors from a wide variety of disciplines to appeal to Honors students of all majors. May be taken up to three times under different topics. **Prerequisites:** Admission to the Honors Program, permission of Honors director. **Three hours per week with enhancement.**

312. HONORS RESEARCH/CREATIVE PROJECT

1 hour credit

Develop a research or creative project suitable for presentation at an undergraduate research conference or equivalent public venue. Work one-on-one with a faculty mentor from a department of the student's choosing and with Honors administrative faculty to complete and present the independent project. **Prerequisite:** Admission to Honors Program. **One hour per week. (P/F)**

490. HONORS THESIS PREPARATION

1 hour credit

Designed to set up the framework and faculty support for the thesis. It usually is taken the semester before the students write their thesis. Required for those who wish to complete a thesis. **Prerequisite:** Permission of the Honors director. **One hour per week. (P/F)**

495. HONORS THESIS

3-4 hours credit

Independent study culminating in substantial original

research, scholarly or creative work. Students may apply to the Honors faculty administrators for permission to substitute another department's thesis or independent study course for HONR 495. The thesis must be completed with a B or better to fulfill the Honors program requirement. **Prerequisite:** HONR 490. **Corequisite:** HONR 496. **Three hours per week.**

496. HONORS THESIS CONSULTATION

0 hours credit

Designates the Honors thesis consultation with thesis director and committee. **Prerequisite:** HONR 490. **Corequisite:** HONR 495 or departmental research/creative course approved by Honors administrator.

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. May not receive credit for both INFO 111 and INFO 211. **Two hours per week.**

211. INFORMATION SYSTEMS CONCEPTS FOR MANAGEMENT

4 hours credit

Become familiar with current end-user software, such as word processing, spreadsheets and databases, and examine the use of these and other 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. May not receive credit for both INFO 111 and INFO 211. **Three hours lecture, two hours laboratory 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 INFO 211 or COSC 116; MATH 155; MATH 160 or 201. **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:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211. **Three hours per week.**

311. BUSINESS SYSTEMS ANALYSIS

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. May not receive credit for both INFO 475 and INFO 311. **Major Prerequisites:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211. **Three hours per week.**

315. PROJECT MANAGEMENT

3 hours credit

Introduces students to formal project management methods,

tools and processes, including scope, quality, scheduling, cost estimation, communication, risk and change management. Follows the Project Management Body of Knowledge. Although case examples focus on information systems, it can apply to any major. Includes teamwork, guest lectures from industry project leaders and software applications. **Prerequisite:** INFO 311 or 326. **Three hours per week.**

326. 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 system design, quality control, forecasting techniques and inventory policy. **Major Prerequisites:** Admission to Professional Program, INFO 281. **Non-Major Prerequisites:** Junior standing, INFO 281. **Three hours per week.**

333. 3D PRINTING/DIGITALLY ENABLED PRODUCT DEVELOPMENT 3 hours credit

Innovate digitally enabled electronic products using emerging technologies such as Arduino, 3D printing and the Internet of Things. Coverage includes concepts of basic electronics, computer programming, computer-aided design and entrepreneurship. **Prerequisite:** INFO 301 or COSC 117 or COSC 120 or one semester of programming coursework as assessed by the instructor. **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.**

340. DATA MINING FOR BUSINESS INTELLIGENCE 3 hours credit

A high-growth area, data mining is used by organizations to better understand their situations as well as the world in which they function in order to devise effective strategies and policy options. Learn the concepts, software tools and related skills to help students become professional data analysts. A term project and presentation adopts a real-world, problem-solving context. **Major Prerequisites:** Admission to Professional Program, INFO 211, 281. **Non-Major Prerequisites:** Junior standing, INFO 211, 281. **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:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211. **Three hours per week.**

370. ENTERPRISE SYSTEMS AND INTEGRATED BUSINESS PROCESSES 3 hours credit

Examines enterprise resource planning (ERP) information systems used extensively in organizations to facilitate integrated business processes. Provides a conceptual review of underlying business process implemented in ERP systems as well as hands-on use of ERP software to reinforce understanding. The roles of other enterprise systems are discussed and demonstrated. May not receive credit for both INFO 370 and INFO 470. **Major Prerequisites:** Admission to Professional Program, ACCT 201, INFO 211. **Non-Major Prerequisites:** ACCT 201, 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:** 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. **Major Prerequisites:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211 or COSC 118 or COSC 120. **Three hours per week.**

395. MANAGERIAL DECISION SUPPORT SYSTEMS WITH VBA 3 hours credit

Implementation of computerized technologies to support managerial decision-making using Visual Basic for Applications to create cost-effective and impressive client deliverables. Topics include decision support approaches and expert systems as implemented in and integrated with spreadsheet business software for rapid applications development. **Major Prerequisites:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211. **Three hours per week.**

401. MOBILE ENTERPRISE APPLICATION DEVELOPMENT 3 hours credit

Using mobile development platforms, build and deploy hybrid mobile applications that are designed to execute across a variety of smart devices, with particular emphasis on the development of enterprise applications that extract and deploy data from business information systems, web services and other organizational level data sources. **Prerequisite:** INFO 301. **Three hours per week.**

430. BUSINESS ANALYTICS 3 hours credit

Advanced information technologies for achieving knowledge about status, potentials and perspectives of a company out of heterogeneous and distributed data. Topics include data warehouse and OLAP, enterprise reporting, multidimensional data modeling, advanced data visualization, and predictive analysis. **Prerequisites:** INFO 281, 386. **Three hours per week.**

440. STORAGE TECHNOLOGY FUNDAMENTALS 3 hours credit

Comprehensive coverage of modern storage technology which enables students to make more informed decisions in an increasingly complex IT environment. Learn the latest storage architectures, such as Storage Subsystems, SAN, NAS, DAS, CAS, IP-SAN and data security. **Prerequisite or Corequisite:** INFO 386. **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:** Admission to 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. **Major Prerequisites:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211. **Three hours per week.**

460. SECURITY MANAGEMENT

3 hours credit

Provides an overview of the field of information security and assurance through the application of policies, education and technologies. Learn a spectrum of security methodologies and procedures relating to risk management, firewalls and VPNs, access control, intrusion detection and prevention systems, cryptography, and physical security. **Major Prerequisites:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, 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. **Major Prerequisites:** Admission to Professional Program, INFO 211. **Non-Major Prerequisites:** Junior standing, INFO 211. **Three hours per week.**

471. ADVANCED TOPICS IN ERP

3 hours credit

Examines enterprise resource planning (ERP) information systems in greater depth through extensive hands-on use of ERP software to reinforce understanding of how these systems facilitate integrated business processes. Includes configuration of an ERP system. **Prerequisites:** Admission to Professional Program, C or better in INFO 370. **Non-Major Prerequisites:** Junior standing, C or better in INFO 211, INFO 370. **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. **Prerequisite:** INFO 301 or INFO 311 or 315 or 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 general IT. Assists students working toward entry-level general networking (Network+, Network Security, etc.) or vendor-specific (Cisco, Microsoft, Linux, etc.) certifications. **Prerequisite:** INFO 385. **Three hours per week.**

490. INFORMATION SYSTEMS INTERNSHIP

3 hours credit

Professional work experience in information systems. **Prerequisites:** INFO 301 or INFO 311 or INFO 315 or INFO 386, information systems major, placement approval and permission of the department chair, completion of ABLE administrative requirements, successful completion of BUAD 300.

491. ADVANCED INFORMATION SYSTEMS INTERNSHIP

1-3 hours credit

Research associated with an internship experience in information systems. **Prerequisite:** INFO 490 or ABLE requirement, placement approval and permission of the department chair, completion of ABLE administrative requirements. **One to three hours per week.**

494. DIRECTED STUDY IN INFORMATION SYSTEMS

1-3 hours credit

Intensive research or study of a selected topic in information 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.

501. ENTERPRISE SYSTEMS

3 hours credit

Introduces basic business processes, the transactions in those processes and how data is generated via those processes. Use an enterprise resource planning (ERP) system to do these processes and use the data extracted from the system for decision-making purposes. See the advantage of an integrated system while seeing the limitations of using a transaction-processing system for business intelligence. **Three hours per week.**

502. DATA MANAGEMENT

3 hours credit

Provides basic concepts in database management, including database processing, data modeling, database design and implementation. Learn the basic differences between a relational database and in-memory database both conceptually and through hands-on exercises. Use MySQL (relational database) to see the basic concepts of database and SAP HANA (in-memory database) to see the benefits of in-memory computing in terms of speed of processing. **Prerequisites:** INFO 501. **Three hours per week.**

503. CRM AND BUSINESS ANALYTICS

3 hours credit

Customer Relationship Management (CRM) and Engagement Intelligence is an emergent marketing and firm-to-customer business strategy based on a deep understanding of customer value. In practice, it involves the use and analysis of marketing databases and communication technologies to determine firm practices that maximize the lifetime value of each individual customer and provide answers to questions about customer loyalty and return on marketing investments. Use SAP Business Warehouse (BW) and Business Objects-Explorer for hands-on experience with analytical processes. **Prerequisites:** INFO 502. **Three hours per week.**

504. BUSINESS MOBILITY

3 hours credit

Employees increasingly rely on mobile devices to get their work done, but that requires developing the mobile applications to be able to do so. Learn the basic concepts of this cutting-edge technology by using a hybrid web container to "push" web applications to mobile devices, thus allowing individuals to access transaction data as well as sophisticated analytics via their mobile devices. Create mobile applications and use those applications to access data from an ERP systems as well as analytical and visualization technologies. **Prerequisites:** INFO 502. **Three hours per week.**

505. PREDICTIVE ANALYSIS AND DATA VISUALIZATION
3 hours credit

Building on analytics knowledge gained in CRM and Business Analytics, add predictive analytics and data visualization to the repertoire of analytics tools. Use sophisticated analytical tools and data from in-memory database to conduct advanced analysis of data from enterprise systems such as predicting the future profitability of a customer. Create dashboards and other visualization tools to allow decision makers to more easily view the results of the analysis. **Prerequisites:** INFO 503, 504. **Three hours per week.**

602. DECISION MAKING IN THE SUPPLY CHAIN
3 hours credit

Examines contemporary quantitative methodologies for optimizing firm initiatives and enhancing efficiency. Topics include multicriteria decision making, linear programming, forecasting, neural networks and Monte Carlo simulation. Ethical implications and the use of these methodologies for strategic advantage and profit maximization are discussed. **Prerequisites:** Admission to the M.B.A. program; completion of MyClasses Excel Assessment; INFO 326 (or equivalent) with a grade of C or better. **Six hours per week for half a semester.**

615. PROJECT MANAGEMENT
3 hours credit

Essential concepts in project management taking a socio-technical perspective, incorporating both technical (e.g., scheduling, budgeting, tracking) and interpersonal (e.g., teams, motivation, communication) aspects of project management. Addresses all phases of project management from planning to closing. Includes project management simulation, hands-on use of project management software and planning for a real-world project. **Prerequisites:** Graduate standing. **Three hours per week.**

620. ENTERPRISE SYSTEMS AND INTEGRATED BUSINESS PROCESSES
3 hours credit

Exploration of enterprise-wide systems used in businesses. Explores concepts and use of different enterprise systems including ERP and CRM systems. Gain a better understanding of ERP systems by using SAP R/3 to conduct common processes in businesses. **Prerequisites:** Admission to the M.B.A. program; INFO 326 (or equivalent) with a grade of C or better. **Six hours per week for half a semester.**

655. INFORMATION SYSTEMS FOR MANAGEMENT DECISIONS
3 hours credit

Explores concepts, ethical ramifications and use of enterprise systems designed to support integrated business processes. An international business case, Global Bike, and the international leader in enterprise resource planning (ERP) software, SAP, are used to illustrate the integration and flow of information within an organization. Implications for master data management and business strategy are also discussed. **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.**

686. DATABASE PROCESSING AND MANAGEMENT
3 hours credit

Essential concepts in database management, including database processing, data modeling, relational database design and implementation. Includes project management methods, hands-on use of database tools, SQL and a team project

requiring online collaboration. **Prerequisite:** Graduate standing, computer literacy, MS Office tools. **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.**

235. INTRODUCTION TO INTERDISCIPLINARY STUDIES
1 hour credit

A basic introduction to interdisciplinary studies aimed at students considering the Interdisciplinary Studies Individually Designed Track. Introduces students to the fundamental tenets and values of an interdisciplinary course of study. **Prerequisite:** Permission of IDIS advisor/instructor. **One and three-quarters hours per week for half a semester.**

240. MINDS, BRAINS AND MACHINES
4 hours credit

An introduction to the foundational ideas and issues of cognitive science, a multidisciplinary approach to understanding how the mind works. Topics include consciousness, artificial intelligence, evolutionary psychology, psycholinguistics and cognitive neuroscience. **Three hours per week with enhancement.**

250. COMPARATIVE RELIGIONS
4 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 with enhancement.**

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 IIIA or IIIC requirements: IDIS 278 or 478. **Three hours per week. Meets General Education IIIA or IIIC.**

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. Develops students' abilities to integrate and synthesize ideas about the interaction of humans in the social world. Students may use only one of the following courses to satisfy General Education IIIB or IIIC requirements: IDIS 279 or 479. **Three hours per week. Meets General Education IIIB or IIIC.**

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 IIIA or IIIC.**

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.**

**325. INTERDISCIPLINARY STUDIES
IN CIVIC ENGAGEMENT**

1-8 hours credit

Study of different concepts and practices as they relate to interdisciplinary studies in civic engagement. May be repeated for a maximum of 12 credits under different subtitles. Note: Students taking IDIS 325 through The Washington Center must take IDIS 490 concurrently. **Prerequisite:** Permission of IDIS internship coordinator.

**335. FUNDAMENTALS OF INTERDISCIPLINARY
STUDIES**

4 hours credit

A comprehensive course for undergraduate students seeking an academic career integrating multiple disciplines. Provides an in-depth study examining the purpose and value of an interdisciplinary course of study. Consider and design individualized programs as well as initiate interdisciplinary research. **Prerequisite:** Permission of IDIS advisor/instructor. **Three hours per week with enhancement.**

**399. GLOBAL SEMINAR IN INTERDISCIPLINARY
STUDIES**

4 hours credit

Provides opportunities for study abroad experiences using the theory and skills of interdisciplinary studies in culturally diverse environments. **Four 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:** SOCI 225 or POSC 409 and junior class standing. **Three hours per week.**

435. INTERDISCIPLINARY RESEARCH SEMINAR

4 hours credit

Upper-level interdisciplinary course focused on a seminar topic. Leads to the in-depth integration of the students' work in a broad range of environments in relation to the topic. May not receive credit for both IDIS 330 and IDIS 435. **Prerequisite:** IDIS 335 or permission of instructor. **Three hours per week with enhancement.**

**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 IIIA or IIIC requirements: IDIS 278 or 478. **Prerequisite:** Junior standing. **Three hours per week. Meets General Education IIIA or IIIC.**

**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 IIIB or IIIC requirement: IDIS 279 or 479. **Prerequisite:** Junior standing. **Three hours per week. Meets General Education IIIB or IIIC .**

485. GENDER STUDIES CAPSTONE SEMINAR

4 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 with enhancement.**

490. INTERNSHIP IN INTERDISCIPLINARY STUDIES

4-8 hours credit

Provide practical experience in using the theory and skills of interdisciplinary studies in public service and professional environments. May be taken for up to eight credit hours. **Prerequisite:** Permission of the IDIS internship coordinator. **Four hours or more 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.**

INTERNATIONAL BUSINESS (INTB)

490 INTERNATIONAL BUSINESS INTERNSHIP

3 hours credit

Intern experience in international business. May substitute for an international business major elective if approved by the school dean. **Prerequisites:** Junior status, international business major, placement approval and permission of the department chair, completion of ABLE administrative requirements, and admission to Professional Program. **Three hours per week.**

494. DIRECTED STUDY IN INTERNATIONAL BUSINESS

1-3 hours credit

For students who desire to research or pursue a special topic in international business. May be used as an international business elective if approved by the chair of the Management and Marketing Department. **Prerequisites:** Junior status and permission of instructor prior to registration. **One to three hours per week.**

495 INTERNATIONAL CASE ANALYSIS

3 hours credit

This case-based course provides a unique opportunity to review and supply various theories learned through the international business curriculum, an interdisciplinary field. Highlights issues that are specific to key global industries and major business markets in the world. Emphasizes teamwork, analytical skills and presentation skills. **Prerequisites:** MGMT 320, MKTG 330, MGMT 422. **Three hours per week.**

ITALIAN (ITAL)

101 ELEMENTARY ITALIAN I 4 hours credit

Beginning spoken and written Italian with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102 ELEMENTARY ITALIAN II 4 hours credit

Continuation of skill development in spoken and written Italian with further study of major structures. **Prerequisite:** ITAL 101 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

JAPANESE (JAPN)

101 ELEMENTARY JAPANESE I 4 hours credit

Beginning spoken and written Japanese with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102 ELEMENTARY JAPANESE II 4 hours credit

Continuation of skill development in spoken and written Japanese with further study of major structures. **Prerequisite:** JAPN 101 or permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

KOREAN (KORA)

101 ELEMENTARY KOREAN I 4 hours credit

Beginning spoken and written Korean with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102 ELEMENTARY KOREAN II 4 hours credit

Continuation of skill development in spoken and written Korean with further study of major structures. **Prerequisite:** KORA 101 or permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

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 IIIA or IIIC.**

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 IIIA or IIIC.**

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. **Major Prerequisite:** Admission to Professional Program (Accounting, Business Economics, International Business, Management and Marketing majors with C or better in pre-professional courses). **Major Corequisite:** BUAD 300. **Non-Major Prerequisite:** Completion of 56 credit hours of college courses and ECON 150 or 211 or 212 with C or better. **Three hours per week.**

325. 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. May not receive credit for both MGMT 420 and 325. **Prerequisite:** MGMT 320 or MKTG 330 (Accounting, Business Economics, International Business, Management and Marketing majors with C or better). **Three hours per week.**

338. 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). **Major Prerequisites:** Varies by topics, admission to Professional Program. **Non-Major Prerequisites:** Varies by topics, junior standing. **Three hours per week.**

350. 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. May not receive credit for both MGMT 450 and 350. **Prerequisite:** MGMT 320. **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.**

431. NEW VENTURE INITIATION

3 hours credit

Focus on hands-on learning experience and practical knowledge about starting a value-creating entity (i.e., a business). Tackle new adventures related to your business ideas and how to discover, validate and then execute your plan. Create a viable new venture by emphasizing nimbleness and speed in iterative customer development. **Prerequisite:** C or better in MGMT 428. **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 350. **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 350. **Three hours per week.**

453. COMPENSATION

3 hours credit

Addresses various aspects of compensation, focusing primarily on private sector organizations. Explores legal, strategic and applied aspects of the subject. Discusses the importance of compensation strategy. **Prerequisite:** MGMT 320 with a grade of C or better, declared human resource management track or permission of instructor. **Three hours per week.**

454. NEGOTIATION

3 hours credit

Explores the dynamics of negotiation. Learn interdisciplinary theories of negotiation and concepts important to the mastery of negotiation skills. The development of individual and group negotiation strategy and the use of maximizing techniques in a range of contextual settings are practiced. **Prerequisite:** MGMT 320 or MKTG 330. **Three hours per week.**

455. DESIGNING HIGH-PERFORMANCE WORK SYSTEMS

3 hours credit

Learn how the best corporations are developed through a systematic and holistic approach to management, examining the interplay between managerial processes such as leadership, culture, recruitment, selection, training and development, acculturation, engagement, and rewards. Study how companies, both domestically and internationally, have used such a systematic approach to build sustainable businesses. **Prerequisite:** MGMT 320. **Three hours per week.**

456. EMPLOYEE TRAINING AND DEVELOPMENT

3 hours credit

Provides an overview of the practical and theoretical approaches to training and developing employees in organizations, and of the broader area of human resource development. Topics covered include basic concepts such as motiva-

tion and learning theory, needs assessment, and the evaluation of training. Different types of training programs are examined, including skills training, team building, diversity training and management development. **Prerequisite:** MGMT 350. **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 status, management major, placement approval and permission of the department chair, completion of ABLE administrative requirements, admission to Professional Program, successful completion of BUAD 300.

491. ADVANCED MANAGEMENT INTERNSHIP

1-3 hours credit

Research associated with an internship experience in management. **Prerequisite:** MGMT 490 or completion of ABLE requirement, placement approval and permission of the department chair, completion of ABLE administrative requirements. **One to three hours per week.**

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, INFO 326, MGMT 320, MKTG 330 (Accounting, Business Economics, International Business, Management and Marketing majors with C or better in prerequisite courses). Business/Business Economics / Accounting/Information Systems / International Business / Finance / Management / Marketing major in their last semester before graduation. **Three hours per week.**

494. DIRECTED STUDY

1-3 hours credit

For students who desire to research or pursue a special topic in management. May be used as a management elective if approved by the chair of the Management and Marketing Department. **Prerequisites:** Junior status and permission of instructor prior to registration. **One to 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.**

624. HIGH-PERFORMANCE WORK SYSTEMS

3 hours credit

Focuses on the leadership needed to develop the human support systems required for high-performing organizations for the world market during rapid environmental changes. In specific, focus on how to recruit, select, hire, develop, compensate, retain, motivate and lead people capable of rapid changes and responses in a dynamic environment. Such individuals are essential for high-performing organizations in a rapidly changing and highly competitive global marketplace.

Prerequisites: Admission to the M.B.A. program. **Six hours per week for half a semester.**

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.**

628. MANAGING STRATEGICALLY
3 hours credit

A capstone to the formal business program that provides an internal thought process for continuing an informal business education. Analyze any given situation and its ethical implications, separate facts from opinion and use thoughtful evaluation, including consideration of the interdependence between the organization and its environment. Utilize previous course work in a useful and congruent pattern for strategic thinking in a global business context. **Prerequisites:** Admission to the M.B.A. program. Course must be taken in the final spring semester of the student's M.B.A. requirements. **Six hours per week for half a semester.**

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. **Major Prerequisite:** Admission to Professional Program (Accounting, Business Economics, International Business, Management and Marketing majors with C or better in pre-professional courses). **Non-Major Prerequisites:** Completion of 56 credit hours of college courses and ECON 150 or 211 or 212. **Three hours per week.**

331. ADVERTISING AND PROMOTION
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.**

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.**

335. 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. May not receive credit for both MKTG 438 and 335. **Prerequisites:** INFO 281, MKTG 330. **Three hours per week.**

336. DIRECT AND INTERACTIVE MARKETING
3 hours credit

Explore direct response marketing that uses traditional and emerging tools to plan, execute and measure customer engagement and interaction. Utilizing case studies and applied learning techniques, explore and develop customer communications for direct response engagement tools such as direct mail, text, e-mail and a variety of social media platforms. **Prerequisites:** MKTG 330. **Three hours per week.**

337. PROFESSIONAL SELLING
3 hours credit

Introduces the principles of selling in a business-to-business environment. Covers topics such as customer analysis, prospecting, effective sales approach and opening, adaptive presentations, handling objections, techniques for closing sales, and relationship building. Deals with the ethical, legal and social responsibilities of salespersons. Uses sales exercises, individual presentations and simulated role plays to

teach various components of the selling process.
Prerequisite: 56 credits. **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). **Major Prerequisites:** Varies by topics, admission to Professional Program. **Non-Major Prerequisites:** Varies by topics, junior standing. **Three hours per week.**

339. DIGITAL MARKETING ANALYTICS
3 hours credit

Study and practice of digital marketing analytics, digital marketing fundamentals and strategic marketing analytics. Topics include marketing metrics, A/B testing, KPIs, attribution, Customer Lifetime Value analysis, segmentation analysis, RFM analysis, Search Engine Optimization (SEO), email analytics, paid search analytics, website analytics and social media analytics. Learning techniques include simulation, hands-on analytics exercises, use of analytics packages and lectures. **Prerequisite:** C or better in MKTG 330. **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.**

407. SALES MANAGEMENT
3 hours credit

Focuses on helping students understand the issues facing a first-line sales manager. Covers responsibilities and functions of the sales manager, including hiring, selection and training, supervising, motivating, and rewarding the sales force. Related topics include evaluating sales organizational structures, developing compensation plans, developing sales forecasts and setting sales quotas and territories, and sales cost analysis. **Prerequisite:** MKTG 337. **Three hours per week.**

410. ADVANCED PROFESSIONAL SELLING
3 hours credit

Builds on the skills learned in the Professional Selling class. Master the selling process using multiple role plays. Features an experiential component introducing real-life selling processes and practices. Other concepts introduced include team selling, selling with technology, written sales and proposals. Gain an introduction to career management and other personal development activities. **Prerequisite:** MKTG 337. **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.**

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 335 or 430. **Three hours per week.**

440. CONTENT CREATION AND INBOUND MARKETING
3 hours credit

This hands-on applied-learning course explores content creation and implementation of inbound marketing strategies. Inbound marketing is an approach focused on attracting customers through content and interactions that are relevant and helpful, not interruptive. With inbound marketing, potential customers find you through channels like blogs, search engines and social media. Topics include understanding the buyer journey, developing buyer personas, creating content and implementing inbound marketing strategies. **Prerequisite:** MKTG 330 with C or better. **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 status, marketing major, placement approval and permission of the department chair, completion of ABLE administrative requirements, admission to Professional Program, successful completion of BUAD 300 and MKTG 330. **One to three hours per week.**

491. ADVANCED MARKETING INTERNSHIP
1-3 hours credit

Research associated with an internship experience in marketing. **Prerequisite:** MKTG 490 or completion of ABLE requirement, placement approval and permission of the department chair, completion of ABLE administrative requirements. **Prerequisite/Corequisite:** MKTG 490.

494. DIRECTED STUDY
1-3 hours credit

For students who desire to research or pursue a special topic in marketing. May be used as a marketing elective if approved by the chair of the Management and Marketing Department. **Prerequisites:** Junior status and permission of instructor prior to registration. **One to three hours per week.**

497. PROFESSIONAL SELLING INTERNSHIP
3 hours credit

Internship experience in sales. May substitute for a marketing major elective if approved by the dean. **Business School Major Prerequisites:** Junior status, professional sales minor, placement approval and permission of the department chair, completion of ABLE administrative requirements, admission to Professional Program, successful completion of BUAD 300 and MKTG 337. **Non-Business School Major Prerequisites:** Junior status, professional sales minor, placement approval and permission of the department chair, completion of ABLE administrative requirements, successful completion of BUAD 300 and MKTG 337.

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.**

614. STRATEGIC MARKETING APPLICATIONS**3 hours credit**

Examines the role of marketing strategy within the overall strategic framework of the organization; how to gather information, perform in-depth analyses, and make and present strategic marketing management decisions in a global environment; and strategies for dealing with change, uncertainty, conflict, limited information, time pressures, and other common hurdles and obstacles to quick and effective decision making. **Prerequisites:** Admission to the M.B.A. program. **Six hours per week for half a semester.**

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.**

663. BUSINESS INTELLIGENCE/ANALYTICAL CUSTOMER RELATIONSHIP MANAGEMENT (CRM)**3 hours credit**

Explores Customer Relationship Management (CRM) as an emergent marketing and firm-to-customer business strategy based on a deep understanding of customer value. Data-mining techniques are demonstrated using SAP Business Warehouse to identify and optimize the relationship between business and customers in both domestic and international markets. Topics include the managerial and ethical challenges involved in implementing enterprise-wide CRM technology. **Prerequisite:** Admission to M.B.A. program. **Six hours per week for half a semester.**

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.

105. LIBERAL ARTS MATHEMATICS**4 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 190 and 200. **Prerequisites:** Three years of high school mathematics including geometry or college-level intermediate algebra. **Four hours per week. Meets General Education IVB or IVC.**

130. FUNDAMENTAL CONCEPTS I**3 hours credit**

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. **Prerequisite:** Declared elementary education or early childhood education major. **Three hours per week. Does not meet General Education requirements.**

135. 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, 135, 140. **Prerequisites:** High school Algebra I and II. **Three hours per week. Meets General Education IVB or IVC.**

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 100, 102, 118, 122, 135, 140. **Prerequisites:** High school Algebra II and plane geometry. **Four hours per week. Meets General Education IVB or IVC.**

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 IVB or IVC.**

150. DATA AND PROBABILITY CONNECTIONS**3 hours credit**

Provides prospective teachers with a conceptual understanding of statistics and probability. Includes concepts for which elementary curricula lay a foundation, bivariate data analysis, conditional probability, formal inference, relevant educational

software and guidelines for teaching statistics as set forth by the American Statistical Association and the National Council of Teachers of Mathematics. May not receive credit for more than one: MATH 150, 155, 213 or 216. **Prerequisite or Corequisite:** C or better or concurrent enrollment in MATH 130. **Three hours per week. Meets General Education IVB or IVC.**

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. May not receive credit for more than one: MATH 150, 155, 213 or 216. **Prerequisites:** High school Algebra II and plane geometry. **Three hours per week. Meets General Education IVB or IVC.**

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 IVB or IVC.**

198. CALCULUS I FOR BIOLOGY AND MEDICINE

4 hours credit

Introduction to analytic geometry, limits, continuity, derivatives of elementary functions, applications of derivatives and antiderivatives in a biological context. May not receive credit for both MATH 198 and MATH 201. **Prerequisite:** C or better in MATH 140 or equivalent. **Four hours per week. Meets General Education IVB or IVC.**

201. CALCULUS I

4 hours credit

Introduction to analytic geometry, limits, continuity, derivatives of elementary functions and applications of the derivative. May not receive credit for both MATH 198 and MATH 201. **Prerequisite:** C or better in MATH 140 or equivalent. **Four hours per week. Meets General Education IVB or IVC.**

202. CALCULUS II

4 hours credit

Introduction to integrals, infinite series, applications and techniques of integration. **Prerequisite:** C or better in MATH 198 or MATH 201 or equivalent. **Four hours per week. Meets General Education IVB or IVC.**

210. INTRODUCTION TO DISCRETE MATHEMATICS

4 hours credit

Introduction to basic techniques and modes of reasoning for discrete problem solving. Set theory, recurrence relations, counting, graphs and lattice number theory. **Prerequisite:** C or better in MATH 140 or equivalent. **Four hours per week. Meets General Education IVB or IVC.**

214. STATISTICS LABORATORY

1 hour credit

Laboratory activities to reinforce topics covered in MATH 155 or equivalent. To further study and apply the concepts of descriptive and inferential statistics in a hands-on setting using technology. May not receive credit for both MATH 214 and 216. **Prerequisite:** C or better in MATH 155 or equivalent. **Two hours per week.**

215. INTRODUCTION TO FINANCIAL MATHEMATICS

4 hours credit

Introduction to basic financial mathematics focusing on equivalent rates of interest and their use in discounted cashflow

analysis. Topics include annuities, loans, projects, bonds, duration and convexity, the yield curve, and the fundamentals of financial derivatives such as European call and put options. **Prerequisite:** C or better in MATH 160 or equivalent. **Four hours per week. Meets General Education IVB or IVC.**

216. STATISTICAL THINKING

4 hours credit

Descriptive and inferential analysis of data, emphasizing appropriate assumptions, computer use and interpretation. Parametric and non-parametric methods are compared and contrasted. Includes a weekly laboratory. May not receive credit for more than one: MATH 150, 155, 213 or 216. **Prerequisite or Corequisite:** C or better or concurrent enrollment in MATH 160, 198, 201 or similar calculus experience. **Four 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:** C or better in MATH 130. **Three hours per week. Meets General Education IVB or IVC.**

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:** C or better in MATH 210 or equivalent. **Three hours per week.**

306. LINEAR ALGEBRA

4 hours credit

Basic concepts of linear algebra: linear equations and matrices, vector spaces and subspaces, similar matrices, basis and dimension, linear transformations, eigenvalues, determinants, orthogonality, coordinate systems, and applications to geometry. **Prerequisite:** C or better in MATH 202. **Four hours per week.**

310. CALCULUS III

4 hours credit

Arc length, indeterminate forms, Euclidean spaces, functions of several variables, partial differentiation, multiple integrals. **Prerequisite:** C or better in MATH 202. **Four hours per week.**

311. DIFFERENTIAL EQUATIONS I

4 hours credit

Solutions of first and second order equations and their applications: separable, exact, homogeneous, linear. Numerical and series solutions of ordinary and partial differential equations. **Prerequisite:** C or better in MATH 202. **Four hours per week.**

313. SURVEY DESIGN AND SAMPLING

4 hours credit

Peculiarities of sampling and inference commonly encountered in business, the social sciences, the health sciences, environmental studies, natural resources management and other areas with emphasis on the application of survey sampling rather than on the underlying statistical theory of survey design and analysis. **Prerequisite:** C or better in MATH 155 or 213 or 216 or equivalent. **Four hours per week. Meets General Education IVB or IVC.**

314. REGRESSION ANALYSIS

4 hours credit

The study of relationships among variables. Correlation, simple linear regression and multiple regression analyses are

studied. Other topics such as Ridge regression and logistic regression also are considered. Computer software such as Minitab and SPSS is used. **Prerequisite:** C or better in MATH 151 or 155 or 213 or 216. **Four hours per week. Meets General Education IVB or IVC.**

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:** Approval of research committee and department chair. **(P/F)**

402. THEORY OF NUMBERS

4 hours credit

Basic concepts: integers, prime numbers, divisibility, congruencies and residues. **Prerequisite:** C or better in MATH 210 or 306 (both recommended). **Four hours per week. Meets General Education IVB or IVC.**

406. GEOMETRIC STRUCTURES

4 hours credit

Axiomatic development of incidence, ordered incidence, affine and absolute geometries; investigation of Euclidean and non-Euclidean geometries; and the use of dynamic geometry software. May not receive credit for both MATH 406 and MATH 516. **Prerequisite:** C or better in MATH 210. **Four hours per week. Meets General Education IVB or IVC.**

411. DESIGN AND ANALYSIS OF EXPERIMENTS

4 hours credit

Introduction to ideas of planning and designing statistical experiments involving data collection. Study of various statistical analyses for these designs. Discussion of optimal allocation of sampling units to treatments in order to provide the highest accuracy and lowest cost. Use standard statistical software packages such as Minitab and SPSS. **Prerequisite:** C or better in MATH 155 or 213 or 216, or permission of department. **Four hours per week.**

413. MATHEMATICAL STATISTICS I

4 hours credit

Axioms and algebra of probability, discrete and continuous random variables, multivariate distributions, limit theorems. **Prerequisites:** C or better in MATH 213 or 216, and MATH 310. **Four hours per week.**

414. MATHEMATICAL STATISTICS II

4 hours credit

Methods of estimating, properties of estimator, hypothesis testing, linear models, least squares, analysis of variance, enumerative data, nonparametric statistics. **Prerequisite:** C or better in MATH 413. **Four hours per week.**

415. ACTUARIAL AND FINANCIAL METHODS

4 hours credit

Introduction to models of survival, individual life insurance and life annuities emphasizing the traditional actuarial functions of determining premiums and reserves from a stochastic point of view. Topics include multiple life theory, models with expenses, stochastic process, and the use of binomial models, geometric Brownian motion and simulation in the study of option pricing. **Prerequisites:** C or better in MATH 215, 413. **Four hours per week.**

430. MATHEMATICAL CONNECTIONS FOR SECONDARY SCHOOL TEACHERS

4 hours credit

Connection of the undergraduate mathematical curriculum to the secondary mathematics curriculum by examining high school curriculum topics from an advanced and historical perspective. Considers contributions from diverse cultures as students examine the historical development of numbers and number systems, algebra, Euclidean and non-Euclidean geometries, calculus, discrete mathematics, statistics, probability, and measurements. **Prerequisite:** C or better in SCED 373 and either MATH 441 or MATH 451. **Four hours per week.**

441. ABSTRACT ALGEBRA I

4 hours credit

Introduction to the theory of groups, rings, integral domains and fields, including basic properties of polynomials. **Prerequisite:** C or better in MATH 210 or 306 (both recommended). **Four hours per week. Meets General Education IVB or IVC.**

442. ABSTRACT ALGEBRA II

4 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:** C or better in MATH 441. **Four hours per week.**

447. CRYPTOGRAPHY

4 hours credit

An introduction to both classical and modern methods of cryptography, cryptoanalysis and the mathematical principles behind these methods. Topics include an introduction to number theoretic concepts, classical cyphers and their history, modern symmetric and public-key cyphers, and a mathematical analysis of the strengths and weaknesses of cryptographic methods. **Prerequisites:** C or better in MATH 210, MATH 306. **Four hours per week.**

451. ANALYSIS I

4 hours credit

Modern abstract analysis including topology of the real number system, sequences, continuity, differentiability and integration. **Prerequisites:** C or better in MATH 202, 210. **Four hours per week.**

452. ANALYSIS II

4 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:** C or better in MATH 451. **Four hours per week.**

458. COMPLEX ANALYSIS

4 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:** C or better in MATH 310 and in either MATH 210 or PHYS 309. **Four hours per week.**

465. MATHEMATICAL MODELS AND APPLICATIONS

4 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; linear programming. **Prerequisite or Corequisite:** C or better or concurrent enrollment in MATH 306. **Four hours per week.**

471. NUMERICAL METHODS

4 hours credit

Interpolation, functional approximation, numerical differentiation and integration, nonlinear equations, numerical solutions of differential equations, analysis of error. **Prerequisites:** C or better in COSC 117 or 118 or 120 and one of the following: MATH 306 or MATH 310 or PHYS 309. **Four hours per week.**

472. NUMERICAL LINEAR ALGEBRA

4 hours credit

Numerical methods and analysis applied to linear systems. Computer arithmetic and error analysis, direct methods for solving linear systems, iterative techniques in matrix algebra, approximating eigenvalues. **Prerequisites:** C or better in COSC 117, 118 or 120; MATH 202; MATH 306. **Four hours per week.**

475. INTRODUCTION TO DYNAMICS AND CHAOS

4 hours credit

Introduction to mathematical dynamics and chaos. Topics include orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimensions, 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. **Prerequisites:** C or better in MATH 202, 210. **Four hours per week.**

480. 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. **Prerequisite:** C or better in MATH 202 or 210 (both recommended). **Three hours per week.**

482. COMPUTER GRAPHICS

4 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. May not be taken for credit if student has credit for COSC 482. **Prerequisites:** C or better in COSC 120, MATH 293 or MATH 306. **Four hours per week.**

490. SPECIAL TOPICS

4 hours credit

Enables study in specialized areas such as complex variables, logic, non-Euclidean geometry or other topics suggested by faculty or students. May be taken twice under different titles. **Prerequisites:** Varies by topic but usually C or better in MATH 306, 310. **Four hours per week.**

493. ADVANCED TOPICS IN STATISTICS

4 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:** C or better in MATH 213 or 216, and permission of instructor. **Four hours per week.**

495. 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 presentation of a written and oral report to the client organization and the department. Cross-listed with COSC 495. MATH/COSC 495 may be taken twice for a maximum of eight credit hours, but used only once toward a major in mathematics or computer science. **Prerequisite:** Invitation by department chair. **Four hours per week. (P/F)**

500. FOUNDATIONS OF NUMBER THEORY

3 hours credit

Designed for mathematics teachers, with emphasis on the development of the real number system in elementary number theory. Graduate credit only. **Prerequisite:** C or better in a course in college mathematics or permission of instructor, and graduate standing. **Three hours per week.**

501. NUMBER THEORY FROM A MULTICULTURAL AND HISTORICAL PERSPECTIVE

3 hours credit

Designed for middle-school teachers of mathematics, with emphasis on number systems, historical contexts, multi-cultural contributions to mathematics and middle-school curriculum. Graduate credit only. **Prerequisite:** Graduate standing. **Three hours per week.**

502. APPLIED STATISTICS

3 hours credit

The use of linear models in the analysis of data, starting with simple models and going to more complex models. Special attention given to the use and abuse of these models by researchers. Graduate credit only. **Prerequisite:** C or better in MATH 151 or 155 or 213. **Three hours per week.**

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:** Graduate standing. **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 topic may be indicated on transcript. May be taken twice under different course subtitles. Graduate credit only. **Prerequisite:** Approval of department chair.

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:** Approval of department chair.

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:** Graduate standing. **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:** Graduate standing. **Three hours per week.**

511. DESIGN AND ANALYSIS OF EXPERIMENTS

3 hours credit

Introduction to ideas of planning and designing statistical experiments involving data collection. Study of various statistical analyses for these designs. Discussion of optimal allocation of sampling units to treatments in order to provide the highest accuracy and lowest cost. Use standard statistical software packages such as Minitab and SPSS. Credit may not be received for both MATH 411 and MATH 511. **Prerequisites:** C or better in MATH 155 or 213 or 216, and graduate standing. **Four 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:** C or better in MATH 210 or 306 (both recommended), graduate standing. **Four 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:** C or better in MATH 213 or 216, and MATH 310, graduate standing required. **Four 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:** C or better in MATH 413 or 513, and graduate standing required. **Four 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; linear programming. Credit may not be received for more than one: MATH 465, MATH 515. **Prerequisites or Corequisites:** C or better or concurrent enrollment in MATH 306, and graduate standing. **Four 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; and the use of dynamic geometry software. Credit may not be received for more than one: MATH 406, MATH 516. **Prerequisites:** C or better in MATH 210, graduate standing. **Four 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:** Graduate standing. **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. **Prerequisite:** Graduate standing.

531. MATHEMATICAL CONNECTIONS FOR SECONDARY SCHOOL TEACHERS

4 hours credit

Connects the undergraduate mathematical curriculum to the secondary mathematics curriculum by examining high school curriculum topics from an advanced and historical perspective with the goal of deepening understanding of mathematics required for teaching in secondary schools. Considers contributions from diverse cultures in the examination of historical development of numbers and number systems, algebra, Euclidean and non-Euclidean geometries, calculus, discrete mathematics, statistics, probability, and measurements. **Prerequisite:** Mathematics teaching experience. **Four hours per week.**

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:** Graduate standing. **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:** C or better in MATH 202, 210 and graduate standing. Credit may not be received for more than one: MATH 451, MATH 551. **Four 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:** C or better in MATH 451 or 551, and graduate standing required. **Four 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:** Graduate standing. **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:** C or better in MATH 310 and MATH 210 or PHYS 309. **Four 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:** C or better in MATH 210 or 306 (both recommended), and graduate standing. **Four 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:** C or better in MATH 441 or 561, and graduate standing. **Four 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:** Graduate standing. **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:** Graduate standing. **Three hours per week.**

571. NUMERICAL METHODS

3 hours credit

Interpolation, functional approximation, numerical differentiation and integration, nonlinear equations, numerical solutions of differential equations, analysis of error. May not receive credit for both MATH 471 and MATH 571. **Prerequisites:** C or better in COSC 117 or 118 or 120 and one of the following: MATH 306 or MATH 310 or PHYS 309, and graduate standing. **Four hours per week.**

572. NUMERICAL LINEAR ALGEBRA

3 hours credit

Numerical methods and analysis applied to linear systems. Computer arithmetic and error analysis, direct methods for solving linear systems, iterative techniques in matrix algebra, approximating eigenvalues. **Prerequisites:** C or better in COSC 117, 118 or 120; MATH 202; MATH 306, graduate standing. **Four 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:** C or better in MATH 202, 210 and graduate standing. **Four 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:** C or better in MATH 202 or 210 (both recommended), and graduate standing. **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:** C or better in COSC 120, MATH 306, graduate standing required. **Four 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:** C or better in MATH 213 or 216, and permission of instructor, graduate standing. **Four hours per week.**

MEDICAL LABORATORY SCIENCE (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. Student 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, skeletomuscular, 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 MEDICAL LABORATORY SCIENCE

4 hours credit

Introduction to medical laboratory science, including laboratory equipment, microscopy, spectrophotometry, safety, ethics, diagnostic and prognostic use of testing, specimen collection and handling, statistics, quality assurance, quality control and methods comparison, lab math, lab computerization, professional communication methods, and methods in research design/practice with emphasis on evaluation of published laboratory science research. **Prerequisite:** Admission to the major or permission of instructor. **Three hours lecture, three hours laboratory per week.**

301. HEMATOLOGY I

4 hours credit

Hematopoiesis, red blood cell production and destruction, non-neoplastic leukocyte disorders, blood cell metabolism and hemoglobin synthesis. Laboratory focuses on normal/abnormal patient differentiation using CBC, microscopic analysis and clinical correlations. **Prerequisite:** MDTC 300 and 331 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.**

331. DIAGNOSTIC IMMUNOLOGY**4 hours credit**

Basic biology and pathological disorders of the human immune system are reviewed. Presentation and performance of medical laboratory techniques for clinical diagnosis utilizing immunochemical, molecular and automated techniques.

Prerequisites/Corequisite: MDTC 300 and admission to the major or permission of instructor. **Three hours lecture and three hours laboratory per week.**

341. CLINICAL BIOCHEMISTRY I**5 hours credit**

Clinical analytes 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 300 and 331 or permission of instructor. **Four hours lecture, three hours laboratory per week.**

401. HEMATOLOGY II**4 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, body fluid analysis and quality control. **Prerequisite:** MDTC 301 or permission of instructor. **Three 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 immunochemistry, radioactivity, chromatography, toxicology, therapeutic drug monitoring, quality control and method evaluation. Emphasis related to human endocrinology, gastric and muscle 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 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 analyte pathology, assurance of accuracy and precision of laboratory data. **Prerequisites:** MDTC 341, 441 or permission of instructor. **Five hours lecture, 35 hours laboratory per week.**

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 MEDICAL 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

Capstone experience including case studies, seminars, interdisciplinary lab operations, comprehensive evaluations and phlebotomy competence. **Prerequisite:** Senior standing in major. **Two and one-half hours per week.**

490. INDEPENDENT STUDY

1-3 hours credit

Intensive study in a specific area of medical laboratory science 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.**

MILITARY SCIENCE (MLSC)

105. LEADERSHIP AND PERSONAL DEVELOPMENT

2 hours credit

Introduces personal challenges and competencies that are critical for effective leadership. Learn how the personal development of life skills such as critical thinking, goal setting, time management, stress management and comprehensive fitness relate to leadership and professional development. **Prerequisite:** Enrolled in the Army ROTC program. **Two hours per week.**

106. INTRODUCTION TO LEADERSHIP

3 hours credit

Provides an overview of basic leadership theories and fundamentals. Learn a broad set of leadership theories and those of the U.S. Army with a focus including setting direction, problem solving, listening, presenting briefs, providing feedback and using effective writing skills. Explore dimensions of leadership attributes and core leader competencies in the context of practical, hands-on and interactive exercises. **Prerequisite:** Enrolled in the Army ROTC program. **Three hours per week.**

107. LEADERSHIP AND PERSONAL DEVELOPMENT LAB

1 hour credit

The experiential portion of MLSC 105 where students are tested and exposed to leadership within simulated environments. Learn the basic fundamentals in being a member of a team through multiple venues, including drill and ceremony, land navigation, weapons familiarization, basic rifle marksmanship, medical tasks, individual movement techniques, engaging targets, introduction to the orders process, understanding Army acronyms, hand and arm signals, and radio protocol procedures. Learn basic leadership skills and master the fundamentals of being a follower. **Prerequisite:** Enrolled in the Army ROTC program. **Two hours per week.**

108. INTRODUCTION TO LEADERSHIP LAB

1 hour credit

Learn the basic fundamentals in being a member of a team through multiple venues, including drill and ceremony, land navigation, weapons familiarization, basic rifle marksmanship, medical tasks, individual movement techniques, engaging targets, introduction to the orders process, understanding Army acronyms, hand and arm signals, and radio protocol procedures. Learn basic leadership skills and master the fundamentals of being a follower. **Prerequisite:** Enrolled in the Army ROTC program. **Two hours per week.**

205. FOUNDATIONS OF LEADERSHIP I

3 hours credit

Explores the dimensions of creative and innovative leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of Army leadership framework (trait and behavior theories). Practice aspects of personal motivation and team building in the context of planning, executing and assessing team exercises. **Prerequisite:** Enrolled in the Army ROTC program. **Three hours per week.**

206. FOUNDATIONS OF LEADERSHIP II

3 hours credit

Explores the challenges of leading teams in the operational environment. Further study of the theoretical basis of leadership explores the dynamics of adaptive and situational leadership in the context of operations and organizational management. Develop greater self-awareness while assessing personal leadership styles and practicing communication and team-building skills. Practical exercises give insight into the importance and practice of teamwork in real-world scenarios. **Prerequisite:** Enrolled in the Army ROTC program. **Three hours per week.**

207. FOUNDATIONS OF LEADERSHIP LAB I

1 hour credit

Become proficient in the basic fundamentals and gain an introduction to leading a small team through multiple venues, including leading drill and ceremony, advanced land navigation, building terrain models, advanced rifle marksmanship, medical skills, movement formations, movement techniques, special teams, writing operations orders, situation reporting, call for fire, and introduction to battle drills. Focus on mentoring freshmen and serve as team leaders. Open to students in MLSC 205. **Prerequisite:** Enrolled in the Army ROTC program. **Two hours per week.**

208. FOUNDATIONS OF LEADERSHIP LAB II

1 hour credit

Become proficient in the basic fundamentals and gain an introduction to leading a small team through multiple venues, including leading drill and ceremony, advanced land navigation, building terrain models, advanced rifle marksmanship, medical skills, movement formations, movement techniques, special teams, writing operations orders, situation reporting, call for fire, and introduction to battle drills. Focus on mentoring freshmen and serve as team leaders. **Prerequisite:** Enrolled in the Army ROTC program. **Two hours per week.**

305. ADAPTIVE TEAM LEADERSHIP**4 hours credit**

Study, practice and evaluate adaptive leadership skills through challenging scenarios related to squad tactical operations. Receive systematic and specific feedback on personal leadership attributes and actions through experiential learning achieved in a two-hour laboratory component. Based on feedback, as well as self-evaluations, continue to develop personal leadership and critical thinking abilities. Plan, rehearse and lead basic course cadets through the program of instruction. **Prerequisites:** Enrolled in the Army ROTC program. **Four hours per week.**

306. APPLIED TEAM LEADERSHIP**4 hours credit**

Uses increasingly intense situational team leadership challenges to build awareness and skills in leading tactical operations at the small unit level. Focuses on exploring, evaluating and developing skills in decision-making, persuading and motivating team members in the contemporary operating environment. Based on performance evaluations and feedback, continue to develop personal leadership and critical thinking abilities. Plan, rehearse and lead basic course cadets through the program of instruction. **Prerequisite:** Enrolled in the Army ROTC program. **Four hours per week.**

380. LEADERSHIP DEVELOPMENT AND ASSESSMENT**4 hours credit**

A 29-day intensive training period in which students are tested in their leadership, military tactics, techniques and procedures, as well as critical thinking abilities. A required course of the U.S. Army ROTC and is conducted during the summer. **Prerequisites:** Enrolled in the Army ROTC program; successful completion of MLSC 305, 306. **Twenty-nine days during the summer.**

405. LEADERSHIP IN A COMPLEX WORLD**4 hours credit**

Explores the dynamics of leading in the complex situations of current military operations in support of unified land operations (ULO). Examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of changing aspects of conflict and the range of military operations. Explore aspects of interacting with non-government organizations, civilians on the battlefield and host nation support. Through the lab, take on leadership roles in teaching, training and developing subordinates. Seniors serve as lab supervisors and are evaluated on their ability to mentor peers and provide appropriate leadership interventions. **Prerequisites:** Enrolled in the Army ROTC program. **Four hours per week.**

406. MISSION COMMAND**4 hours credit**

Develops the skills of an adaptive leader capable of developing training plans and managing training programs. Learn the duties and responsibilities of an Army staff officer and apply the Military Decision Making Process, Army Writing Style, and the Army's Training Management and METL Development processes grounded in adult education concepts. Learn to safely conduct training by understanding and employing the Composite Risk Management Process. Learn concepts of resiliency in order to reduce and manage stress that impact organizational effectiveness. Through the lab, take on leadership roles in teaching, training and developing subordinates. Seniors serve as lab supervisors and are evaluated on their ability to mentor subordinates. **Prerequisite:** Enrolled in the Army ROTC program. **Four hours per week.**

MODERN FOREIGN LANGUAGES (MDFL)

101. ELEMENTARY LANGUAGE STUDY I**4 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 with enhancement. Meets General Education IIIA or IIIC.**

102. ELEMENTARY LANGUAGE STUDY II**4 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 with enhancement. Meets General Education IIIA or IIIC.**

241. THE FRENCH PEOPLE**4 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 with enhancement. Meets General Education IIIA or IIIC.**

245. THE GERMAN PEOPLE**4 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 with enhancement. Meets General Education IIIA or IIIC.**

246. THE RUSSIAN PEOPLE**4 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 with enhancement. Meets General Education IIIA or IIIC.**

248. STUDIES IN CONTEMPORARY CULTURES**4 hours credit**

Exploration and study of the ways of life and contemporary culture of peoples of the industrialized world not normally studied as a part of the fixed curriculum. May be repeated once under a different subtitle. Taught in English. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

300. STUDIES IN FRENCH LITERATURE IN TRANSLATION**4 hours credit**

Study of an author, period, movement, genre or theme. Topic varies semester to semester. Taught in English. May be repeated once with new content and different subtitle. **Prerequisite:** ENGL 103 or permission of department chair. **Three hours per week with enhancement. Meets General Education IB.**

399. INTERNATIONAL FIELD STUDY**1-8 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 (MUED, MUMT, MUSA, MUSC)

MUED

319. TECHNOLOGY IN MUSIC EDUCATION

1 hour credit

Overview of the essential role of music technology in education. Techniques for using music technology in teaching music are explored. **Prerequisite:** Admission to Professional Teacher Education Program or permission of instructor. **Two hours per week.**

MUMT

200. INTRODUCTION TO THE MUSIC BUSINESS AND ENTREPRENEURSHIP

4 hours credit

Designed for music students as well as any student contemplating a career or business venture in the music field. Experience a broad introduction to entrepreneurship and the music industry. Examine a wide range of areas in music business, such as publishing, recording and management, and examine different legal, artistic and financial considerations facing graduates entering the music field today. Learn the skills necessary to think creatively, identify opportunities and assess risks, and acquire basic business skills in order to be successful in the music field. **Three hours per week with enhancement.**

234. BEGINNING AUDIO PRODUCTION

4 hours credit

Covers the basic skills and techniques required for media recording. Emphasis is on studio procedures, microphone techniques and principles of digital recording. **Three hours per week with enhancement.**

300. EAR TRAINING FOR RECORDING ENGINEERS

1 hour credit

Critical listening skills are developed through class demonstration and ear-training exercises. Specific skills include hearing and discriminating frequencies, mixes, etc. while listening musically to various production styles. The ear, the mechanics of hearing and how the brain interprets sound are explored. Critical definition of what constitutes good versus bad sound and how to incorporate the definition into music production are discussed. Deep listening skills are developed. **Prerequisite:** MUSC 311, 312. **Two hours per week.**

354. ADVANCED AUDIO PRODUCTION

4 hours credit

Intensive audio production course designed to expand upon the concepts covered in MUMT 234, focusing on post-production techniques. Relevant topics include automation, quantization, drum replacement, advanced signal processing and mastering. Edit and mix live recordings, as well as produce studio creations with the intent of contributing to a class compilation CD at the end of the course. **Prerequisite:** MUMT 234. **Three hours per week with enhancement.**

355. TOPICS IN AUDIO PRODUCTION

2 hours credit

Expands upon the concepts covered in MUMT 234 and MUMT 354, focusing on advanced topics in modern music production. May be taken twice for credit. **Prerequisite:** C or better in MUMT 354. **Three hours per week.**

356. LIVE SOUND PRODUCTION

1 hour credit

Provides an overview of the audio technology required in a live performance setting. Gain hands-on experience in set-

ting-up and operating live sound systems, as well as study-related topics, including gain structure, power handling, system design and live recording. Work with SU Event Technical Services to assist with the audio production at campus events. **Prerequisite:** C or better in MUMT 354. **Two hours per week.**

400. MUSIC ACOUSTICS

3 hours credit

Provides a broad overview of various aspects of acoustics. Musical acoustics is a very unique area of study where both science and music unite. Explore the science of sound and how the ear responds to it. The study of sound generated from various types of musical instruments, the human voice, real world acoustical experiences, electronic-generated sound and their application to musical acoustics are explored. **Prerequisite:** PHYS 121. **Three hours per week.**

495. INTERNSHIP IN MUSIC TECHNOLOGY

4 hours credit

Provides an occupational setting that relates to students' career aspirations in the music technology field. Workplace duties are negotiated with an employer who serves as mentor and supervisor. Provides an outlet for students to gain practical, hands-on experience in a professional setting by applying theoretical, technical and musical skills learned in previous coursework. **Prerequisite:** Senior standing and permission of department. **Four hours per week.**

496. MUSIC TECHNOLOGY PROJECT

3 hours credit

Required of music technology majors in the senior year of the B.A. in music program, but is open to all music majors. Project is intended to be a recording project, electronic music composition, acoustical analysis or other technological exploration. Project is of the student's choice in consultation with a faculty mentor. Students meet weekly with their faculty mentor. Sign up in Music Department office one term in advance. **Prerequisites:** Senior standing, completion of core and permission of instructor. **One hour per week with enhancement.**

MUSA

100. UNIVERSITY CHORALE

1 hour credit

A non-auditioned ensemble of mixed SATB voices which performs a variety of choral literature from all style periods. Sight-reading fluency and small ensemble work are achieved in rehearsals. 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 in big band and small and large combo contexts. Study and application of improvisation skills as an integral part of the ensemble experience. Open to all students and community players. Fulfills large ensemble requirement for music major and minor. Performance background, sight-reading skills preferred. **Prerequisite:** Placement audition required. Contact instructor immediately after registration. **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 (duets, trios, small ensembles and choruses) and scenes from American musical theatre. Study of vocal and audition techniques, performance practice, staging, “characterizing” a song, musical theatre styles and performance etiquette. Open to all students. Fulfills 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. Repertoire may also include chamber orchestra/chamber wind literature as well. The orchestra is a full-size symphonic ensemble comprised of students, faculty, professionals and community players. Fulfills large ensemble requirement for music major. **Prerequisite:** Non-string players need permission from instructor. **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. Fulfills 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. Fulfills 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 music theatre and communication arts. Includes introduction to art song literature and musical theatre repertoire. **Two hours per week.**

109. CLASS VOICE II**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 music theatre and communication arts. Includes introduction to art song literature and musical theatre repertoire. **Prerequisite:** MUSA 108. **Two hours per week.**

110. SALISBURY CHORALE**1 hour credit**

Salisbury Chorale is a mixed—soprano, alto, tenor, bass—choral ensemble whose membership is comprised of persons from the community and University faculty, staff and students. Members assume individual responsibility for professionalism, commitment, awareness of musical objectives and

excellence in performance. Provides an opportunity for all members of the greater community to sing the masterworks of choral literature. **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. May be taken twice for up to four credits. **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. May be taken twice for up to four credits. **Prerequisite:** Successful panel evaluation at the conclusion of MUSC 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. May be taken twice for up to four credits. **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. May be

taken twice for up to four credits. **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 hour 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.

540. APPLIED MUSIC XI

1-2 hours credit

Continued individual studio instruction at graduate level in a major performing area. **Prerequisites:** Audition, MUSA 539.

541. APPLIED MUSIC XII

1-2 hours credit

Continuation of MUSA 540 with a concentration in advanced literature appropriate for a graduate-level recital. **Prerequisites:** Audition, MUSA 540.

MUSC

112. CREATIVITY AND ELECTRONIC /ACOUSTIC MUSIC

4 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 with enhancement. Meets General Education IIIA or IIIC.**

114. MUSIC APPRECIATION

4 hours credit

A general historical survey of musical styles and genres from around the world. Topics may include Western classical music, non-Western cultures, folk music and jazz. May not be repeatable for credit under different topics. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

115. HISTORY OF THE BROADWAY MUSICAL**4 hours credit**

Covers a broad spectrum of knowledge and themes based on the social phenomena depicted and commented upon in Broadway musicals. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

201. INTRODUCTION TO MUSIC THEORY**4 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 with enhancement. Meets General Education IIIA or IIIC.**

202. INTRODUCTION TO MUSIC TECHNOLOGY**4 hours credit**

A broad overview of various hardware and software applications in music. Through composition and presentation projects, online forums, Web page design and other forms of production, explore historical and current uses of music and technology. Basic consideration of ethical, aesthetic, economic and social issues involving music technology also are explored. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

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.**

210. SPECIAL TOPICS IN MUSIC**4 hours credit**

An introductory course on a special topic in music. Topics include emphases on specific genres and sub-genres such as Western classical, world music, folk music, jazz, rock, blues and other music history, musicology and interdisciplinary topics. Prior musical experience and/or knowledge is helpful but not necessary. May be taken three times under different course titles. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

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**4 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 with enhancement. Meets General Education IIIA or IIIC.**

221. BLUES: ROOTS OF ROCK AND ROLL**4 hours credit**

The study of the development of blues as a song style and the effect it has on modern American music. Traces the historical origins and traditions that developed into a style of its own and the influence the blues had on rock and roll, gospel, country R&B and soul. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

222. POPULAR MUSIC AFTER 1945**4 hours credit**

An historical survey of pop, rock and soul music from the 1920s to the present. The student will develop an understanding of the different musical styles as well as the social and cultural issues associated with each. Prior knowledge of music is helpful but not required. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

225. MUSIC AND LANDSCAPE**4 hours credit**

An introduction to the study of landscape interpretations through music analysis. Focuses on the study of 'soundscapes' as aural dimension to the study of past, present or imagined places. No prior knowledge of music or cultural geography is required. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

230. MUSIC FOR CHILDREN**4 hours credit**

Introduction to the role of music in the lives of children. Emphasizes the acquisition of musical skills, experiences and information needed to help students become nurturing, self-directed and competent facilitators of musical experiences in the lives of children. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

301. JAZZ THEORY**4 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 with enhancement.**

303. THEORY III**3 hours credit**

Study of chromatic harmonies and their voice leading tenden-

cies and modulation with added emphasis on analysis, composition and musical interpretation. **Prerequisite:** MUSC 204 or permission of instructor. **Three hours per week.**

304. THEORY IV
3 hours credit

Theories of advanced chromaticism in late Romantic and 20th-century music. Study of analytical and compositional techniques used to interpret uniquely structured neotonal, nontonal and atonal music. **Prerequisite:** MUSC 303 or permission of instructor. **Three 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 IIIA or IIIC.**

308. INSTRUMENTAL TECHNIQUES AND METHODS
2 hours credit

Designed to examine techniques for administering a school instrumental music program. Emphasizes rehearsal techniques, literature, material for school use and the role of instrumental music in the public and the development of skills for teaching beginning instrumentalists. **Prerequisite:** Permission of instructor. It is recommended students have taken one or more of the following: MUSC 215, 216, 217 or 218. **Two hours per week.**

309. CHORAL TECHNIQUES AND METHODS
2 hours credit

Designed to examine rehearsal 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 organized 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
4 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 with enhancement.**

316. TOPICS IN MUSIC HISTORY
4 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 with enhancement. Meets General Education IIIA or IIIC.**

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. Meets General Education IIIA or IIIC.**

403. THE HISTORY OF THE PIANOFORTE AND ITS LITERATURE
4 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. Examine the history of piano technique, piano pedagogy and how it relates to the development of the piano and its literature. **Prerequisite:** Permission of instructor. **Three hours per week with enhancement.**

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**4 hours credit**

Surveys the diverse history, interpretation and poetic content of Italian, French, German and English/American art song (including folk songs and spirituals) from the Renaissance to the present. Includes text and musical analysis of representative works with emphasis on compositional styles and performance practices. Performance and pedagogical components including the mastering of art song recital programming. **Prerequisite:** Permission of instructor. **Three hours per week with enhancement.**

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**4 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 with enhancement.**

441. INSTRUMENTAL LITERATURE**4 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 with enhancement.**

450. STUDIES IN MUSIC**4 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 with enhancement.**

490. DIRECTED INDEPENDENT STUDY**1-4 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 eight credits.

497. UNDERGRADUATE RESEARCH**1-4 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 eight credits. **Prerequisite:** permission of instructor. **One to four hours per week.**

498. SENIOR PROJECT**4 hours credit**

Required of music majors in senior year of the B.A. in music (traditional and music technology tracks), but open to all music majors. Designed to be a research paper, recital or composition. This project is of the student's choice in consultation with a faculty mentor. Students 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 with enhancement.**

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. Examine the history of piano technique, piano pedagogy and how it relates to the development of the piano and its literature. **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. GRADUATE CONDUCTING**3 hours credit**

Graduate-level conducting designed for the practicing choral conductor and teacher of bands, choruses, orchestras and musical theatres. Focuses on advanced skill building in the areas of baton technique, 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

4 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. **Four hours per week. Meets General Education IIIA or IIIC.**

329. RESEARCH METHODS IN NURSING

3 hours credit

Provides an understanding of the research process with opportunities to develop skills in critiquing current nursing research and interpreting evidence to inform practice. **Prerequisites:** NURS 312, MATH 155. **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 2020. **Prerequisites:** NURS 310, 311, 312, 319 with C or better. **Prerequisite/Corequisite:** NURS 329. **Corequisite:** NURS 360. **Six 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 2020. **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.**

401. READINGS IN HEALTHCARE

1 hour credit

Study of a selected healthcare-related book over the course of a semester with opportunities for discussion of pertinent issues and self-reflection. Reading titles and healthcare topics vary semester to semester. May be repeated under different subtitles for a total of three credits. **One hour per week.**

405. NURSING EXTERN SEMINAR

3 hours credit

Discussions of timely topics in nursing and health care. Explores concerns in nursing career development including role conflict, role transition and reality shock. Refine skills in assertiveness, clinical decision making, time management and conflict resolution. **Prerequisites:** NURS 350, 351 with a C or better or permission of instructor.

408. COMPLEMENTARY AND ALTERNATIVE APPROACHES TO HEALTH PROMOTION

3 hours credit

An introductory overview 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 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 curriculum innovation or meeting the special needs or interests of undergraduate and graduate students. 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. Self-care 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, legal and sociocultural climates and theory related to the health care needs of an aging population. **Prerequisites:** NURS 329, 350, 351, 360, 361, 370, 371, 380, 381 with C or better. **Corequisite:** NURS 431. **Three hours per week.**

431. COMMUNITY HEALTH NURSING PRACTICUM: A RURAL PERSPECTIVE

3 hours credit

Prepares beginning practitioners to work with families, aggregates and communities in rural settings. Clinical practice guided by the objectives of Healthy People 2020 and the use of critical thinking skills. **Prerequisites:** NURS 329, 350, 351, 360, 361, 370, 371, 380, 381. **Corequisite:** NURS 430. **Nine hours per week.**

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 or permission of instructor. **Three hours per week.**

441. INTERNSHIP

3 hours credit

Precepted practicum emphasizing integration of knowledge, skills and values needed to care for groups of clients. Opportunities to develop beginning understanding of unit management issues within the context of a health care organization. Fosters increased independence in providing care to clients facilitating the transition to the role of graduate nurse. **Prerequisites:** NURS 329, 351, 361, 371, 381 with C or better. **Corequisite:** NURS 440. **Nine 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.**

450. BEST PRACTICES IN NURSING AND NURSING EDUCATION

3 hours credit

Assists nursing students in applying best practices in nursing and nursing education to individual educational programs of study. This hybrid course offers online interaction, weekly class/group meetings and opportunities for hands-on application of nursing information. Involves students in activities that increase use of evidence-based information in health care and nursing education. Focuses on strengthening students' understanding of the scientific basis of nursing, application of the nursing process in a variety of settings and success in academic pursuits. **Prerequisite:** Admission to the nursing program. **One hour classroom per week with online component.**

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, toxicology. **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.**

458. CRITICAL CARE: A MULTI-PROFESSIONAL APPROACH

3 hours credit

Introduces students to collaborative critical care practice. Prepares students interested in critical care clinical practice to recognize and categorize causes of sudden deterioration of the critically ill patient. Teaches appropriate treatment and interventions for the deteriorating critically ill patient. **Prerequisites:** Admission to nursing or respiratory therapy major; Nursing: NURS 310, 311, 350, 351 with C or better; Respiratory Therapy: Senior status with successful completion of all junior-level courses and concurrent enrollment in all senior-level coursework; or permission of instructor. Cross-listed with RESP 458. **Three 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.**

490. INDEPENDENT STUDY

1-3 hours credit

Intensive study in a specific area of nursing agreed upon by the student and faculty member. Open to senior and graduate students. May be taken twice under different course subtitles. **Prerequisite:** Permission of instructor.

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 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:** Graduate standing or permission of instructor. **Three hours per week.**

510. ADVANCED HEALTH ASSESSMENT: DIDACTIC

3 hours credit

Provides the didactic content as a basis for history-taking and physical examination skills necessary for an advanced practice nurse. Critical thinking and diagnostic reasoning skills are used to analyze the history, physical examination and laboratory data in order to lay the foundation for an accurate assessment of the client and establish priorities of care. Physical, psychosocial, developmental, occupational and cultural assessment are considered as foundational to advanced practice nursing. May not receive credit for both NURS 510 and NURS 512. **Prerequisite:** Admission to the master's program or consent of instructor. **Prerequisite/Corequisite:** NURS 552. **FNP Corequisite:** NURS 511. **Three hours per week.**

511. ADVANCED HEALTH ASSESSMENT FOR ADVANCED PRACTICE NURSES: CLINICAL PRACTICUM

2 hours credit

Provides an opportunity for students to practice advanced health assessment skills on clients under the direction of a preceptor. Competencies in history-taking and physical examination skills essential for a problem-focused or comprehensive examination are demonstrated as an advanced practice nurse. Differential diagnoses are considered to determine the extent of the history and physical examination. Integrates evidence-based standards of care into practice. May not receive credit for both NURS 511 and NURS 512. **Prerequisite:** Admission to the master's program or consent of instructor, NURS 552. **Prerequisite/Corequisite:** NURS 552. **FNP Corequisite:** NURS 510. **Eleven hours per week.**

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. EPIDEMIOLOGY

3 hours credit

Focuses on epidemiology as the basic science of disease prevention and the role of epidemiology in public health clinical practice and the evaluation of public policy. Provides an

introduction to epidemiology and the epidemiologic approach to problems of health and disease. The basic principles and methods of epidemiology are presented together with its applications to public health and clinical medicine. **Prerequisite:** Admission to a graduate program or permission of instructor. **Three hours per week.**

516. FAMILY NURSING
4 hours credit

Explores theory and research relevant to family nursing assessment and intervention. Family health, illness and the impact of stressful events on the family system are examined. Clinical situations with families are analyzed based on classic family theory, developing theory and published research. Students develop strategies for serving as advocates for families as they explore beginning role requirements of advanced practice nurses. **Three hours lecture, three-four hours clinical practice per week, for a total of 50 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. Client-education factors and salient aspects of research are incorporated. Critical thinking is employed in the analysis and determination of pharmacological regimens. **Prerequisites or Corequisite:** Admission to an advanced practice track of the master's nursing program or permission of the instructor. NURS/BIOL 552. **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 into 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.

**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. Students may not receive credit for both NURS 552 and BIOL 552. **Prerequisite:** B.S. in biology, health-related field or education with biology emphasis. **Three hours per week.**

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.**

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. **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. **Corequisite:** NURS 561. **Nine hours practicum per week.**

570. THEORY AND ROLE DEVELOPMENT
3 hours credit

Focuses on the teaching and learning theories and concepts relevant to the multi-dimensional nurse educator role. The various roles of the nurse educator in selected settings are examined in-depth and as they relate to evidence-based practice. Political, institutional, social, economic, legal and ethical issues are explored. **Prerequisite:** Admission to graduate program. **Three hours per week.**

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. **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. **Corequisite:** NURS 571. **Nine hours practicum per week.**

575. CURRICULUM DEVELOPMENT AND PROGRAM EVALUATION**3 hours credit**

Focuses on curriculum planning and development, including the formulation and evaluation of learning outcomes in nursing and health education. Historical, philosophical and theoretical foundations of curriculum design and evaluation are examined. Current trends in nursing education, outcome and program evaluation, and accreditation also are explored. **Corequisite:** NURS 576. **Three hours per week.**

576. INSTRUCTIONAL STRATEGIES AND TECHNOLOGIES**3 hours credit**

Focuses on principles of teaching and learning for diverse learners across the lifespan. Various innovative technologies and effective teaching strategies are examined for the classroom, clinical or lab setting to facilitate the achievement of cognitive, affective and psychomotor learning outcomes. **Prerequisite/Corequisite:** NURS 575. **Three hours per week.**

577. ADVANCED NURSING PRACTICUM**3 hours credit**

Focuses on the integration of theoretical principles and content from advanced health assessment, physiology/pathophysiology and pharmacology to promote health and manage disease within a specialty area of practice for individuals, groups and populations. Professional role development, advanced nursing practice and regulatory requirements are integrated when appropriate. **Prerequisites/Corequisites:** NURS 510, 522, 552. **One hour of theory and 14 hours of individualized practicum per week for a total of 200 hours.**

578. NURSE EDUCATOR PRACTICUM**3 hours credit**

Focuses on development of competence in the nurse educator role. Practicum experiences are designed to provide opportunities to engage in curriculum development, apply effective assessment and teaching strategies, and evaluate learner and program outcomes in selected educational settings. **Prerequisites:** NURS 570, 575, 576. **Three hours per week.**

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.

592. INTERNSHIP**3 hours credit**

Provides an opportunity for the graduate nursing student to synthesize knowledge and experience from graduate courses and to enhance or expand preparation for advanced nursing practice through an internship. **Prerequisites:** Completion of all practicum courses in track or permission of the instructor. Requires 126 precepted hours.

593. CAPSTONE I: PROPOSAL**1 hour credit**

Focused on the development and refinement of a scholarly study of a clinical case, a topic or an issue relevant to the student's master's degree track. The Capstone Proposal reflects the 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 not receive credit for both NURS 593 and NURS 591. **Prerequisites:** Year 2 or 3 of M.S. program, MATH 502, NURS 542, NURS 544, and permission of the instructor.

594. CAPSTONE II: IMPLEMENTATION**1 hour credit**

Focuses on the implementation of the previously approved Capstone Proposal (NURS 593) and reflects a culminating synthesis of knowledge from graduate courses as an independent project under the direction of a project chair and committee. Critical thinking, excellent oral and written communication, and skillful use of information technology are required. May not receive credit for both NURS 594 and NURS 591. **Prerequisites:** Year 2 or 3 of M.S. program, permission of the instructor, successful completion of NURS 593.

595. CAPSTONE III: DISSEMINATION**1 hour credit**

Focuses on the dissemination of the previously approved Capstone Proposal and Implementation (NURS 593, 594) and reflects a culminating synthesis of knowledge from graduate courses as an independent project under the direction of a Capstone Committee and its chair. Critical thinking, excellent oral and written communication, and skillful use of information technology are required. May not receive credit for both NURS 595 and NURS 591. **Prerequisites:** Year 3 of M.S. program, permission of the instructor, successful completion of NURS 594.

694. DOCTORAL PRACTICE EXPERIENCE**1-3 hours credit**

A student-directed, faculty-advised practice experience that

complements learning in D.N.P. coursework where more expertise is desired. Provides clinical and/or nonclinical opportunities to complete experiences that merge the D.N.P. Essentials and specialty competencies with personal scholarly goals. Required for students needing additional practical experience hours to meet the 1,000 hours of practice post-baccalaureate. Course may be repeated for a total of six credits. **Prerequisites:** Admission to D.N.P. Program and permission of instructor. (P/F)

742. QUALITY IMPROVEMENT IN HEALTHCARE

3 hours credit

Focuses on theory, methods and tools of quality improvement. Prepares for design, implementation and evaluation of evidence-based quality health care practices for patient populations (individuals and aggregates) in a variety of settings. Assess organizational culture, gather safety information, analyze data and translate findings into systems changes through action learning experiences with organizations. **Prerequisites:** Admission to D.N.P. Program; NURS 744 or permission of instructor. **Three hours per week.**

744. EVIDENCE-BASED PRACTICE

3 hours credit

Focuses on the skills needed to critically examine research and clinical practice. Explore databases and evaluate the quality of the research, as well as its applicability to advanced nursing practice. Facilitates the analysis of various types and levels of evidence for determining best practices. Identifies strategies for disseminating evidence-based research, interdisciplinary collaboration, and improving patient care and outcomes. **Prerequisites:** Admission to D.N.P. Program; MATH 502, NURS 544, 542 or equivalent. **Three hours per week.**

750. ADULT HEALTH CARE MANAGEMENT

6 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. May not receive credit for both NURS 558 and NURS 750. **Prerequisite:** NURS 510, 511, 522. **Three hours lecture, 14 hours clinical per week for a total of 200 hours.**

751. WOMEN'S HEALTH CARE MANAGEMENT

3 hours credit

Focuses on primary care of women, including health promotion and disease prevention within the context of the family. Incorporates critical thinking and clinical reasoning to establish diagnoses for and provide 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. May not receive credit for both NURS 559 and NURS 751. **Prerequisites:** NURS 510, 511, 522. **Three hours lecture, 14 hours clinical per week for a total of 100 hours.**

752. CHILDREN'S HEALTH CARE MANAGEMENT

3 hours credit

Focuses on primary care of 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 children with common short-term and chronic stable health problems. Emphasizes quality and cost-effective care of diverse populations in a wide variety of settings. May not receive credit for both NURS 559 and NURS 752. **Prerequisites:** NURS 510, 511, 522. **Three hours lecture, 14 hours clinical per week for a total of 100 hours.**

815. GENETICS AND GENOMICS IN HEALTHCARE

3 hours credit

Explores the emerging science of genetics and genomics in healthcare and its application to advanced nursing practice. Describes diagnostic techniques in medical genetics, effects of teratogenic factors in human development and pharmacogenomics in practice. Focuses on neurodegenerative diseases and common hereditary conditions, including clinical features, diagnostics, genetic testing and counseling. Ethical and legal issues are considered throughout. **Prerequisites:** Admission to D.N.P. Program or permission of instructor. **Three hours per week.**

858. HEALTH PROMOTION AND CLINICAL PREVENTION

3 hours credit

Focuses on collaborative strategies to implement evidence-based clinical prevention and population health services. Analyze national, regional and local data to evaluate current clinical prevention and population health practices and develop a plan for integrating changes to practice. Explore theories of behavioral change to increase the consumer role in health promotion and maintenance and reduce major national health problems. Issues addressed are consistent with current national guidelines for clinical prevention and population health. **Prerequisites:** Admission to D.N.P. Program; NURS 744 or permission of instructor. **Three hours per week.**

880. D.N.P. EVIDENCE-BASED PRACTICUM

1-3 hours credit

Provides opportunities to complete experiences that merge the D.N.P. Essentials and specialty competencies with personal scholarly goals. A collaboration between the student, faculty advisor and agency preceptor complements learning in clinical and non-clinical areas in which more expertise is desired. During the D.N.P. Program, a total of four credits (400 hours) of practicum are required at SU in at least two different areas of focus. **Prerequisite:** Year 2 or 3 of D.N.P. Program or permission of instructor.

881. D.N.P. EVIDENCE-BASED PROJECT 1: TOPIC EXPLORATION AND IDENTIFICATION

1 hour credit

Focused on advancing nursing knowledge in a specialty area. Explore the literature in an area of interest to identify the topic for an evidence-based project that will improve health care outcomes and provide the foundation for future scholarship. **Prerequisite:** NURS 744 or permission of instructor. **One hour per week.**

882. D.N.P. EVIDENCE-BASED PROJECT 2: PROPOSAL DEVELOPMENT

1 hour credit

Focused on advancing nursing knowledge in a specialty area. Review the literature and integrate content from previous graduate courses to develop the proposal for an evidence-based project that will improve health care outcomes and provide the foundation for future scholarship. **Prerequisite:** NURS 881. **One hour per week.**

883. D.N.P. EVIDENCE-BASED PROJECT 3: IMPLEMENTATION

1 hour credit

Focused on advancing nursing knowledge in a specialty area. Implement the evidence-based project proposal from NURS 882. The role of the D.N.P. as a leader in complex organizational systems is addressed as it relates to the evidence-based project. **Prerequisite:** NURS 882. **One hour per week.**

884. D.N.P. EVIDENCE-BASED PROJECT 4: EVALUATION AND DISSEMINATION

1 hour credit

Focused on advancing nursing knowledge in a specialty

area. Evaluate and disseminate the approved project from NURS 883. The role of the D.N.P. as a leader in complex organizational systems is addressed as it relates to the evaluation and dissemination of the project. **Prerequisite:** NURS 883. **One hour per week.**

OUTDOOR EDUCATION LEADERSHIP (ODEL)

200. FOUNDATIONS OF OUTDOOR EDUCATION LEADERSHIP

3 hours credit

Introduces history and theory of experiential and outdoor education, including a survey of relevant literature and best practices. Includes leadership techniques, the role of risk, humankind's relationship with nature and ethics. Develop a personal philosophy of outdoor education. Required to participate in an off-campus field experience. Course fee applies. May not receive credit for both PHEC 200 and ODEL 200. **Three hours per week with enhancement.**

201. WILDERNESS FIRST AID

3 hours credit

Introduction to the principles of first aid in wilderness settings, including patient or sub-assessment and care for open wounds, infection, fractures, dislocations and other life-threatening conditions. Study of strategies for providing care in inclement weather and with alternative standard equipment. Special focus is placed upon evacuation techniques as well as best practices for monitoring and documenting patient status. Certification available. Weekend off-campus field experience required. Course fees apply; contact minor coordinator. May not receive credit for both PHEC 201 and ODEL 201. **Three hours per week.**

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. May not receive credit for both PHEC 203 and ODEL 203. **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. May not receive credit for both PHEC 205 and ODEL 205. **Prerequisite:** PHEC 170 or permission of instructor. **Two and one-half hours per week.**

209. CAMPING AND BACKPACKING

3 hours credit

Instruction, preparation and participation in camping and backpacking activities. Emphasizes knowledge, skills and attitudes for outdoor pursuits, and encourages awareness and respect for the natural environment. Weekend off-campus field experience required. Course fees apply; contact minor coordinator. May not receive credit for both PHEC 209 and ODEL 200. **Prerequisite:** PHEC 201 or ODEL 201. **Three hours per week.**

210. SCUBA DIVING

3 hours credit

Fundamental skills, techniques, knowledge and laws of scuba diving. Emphasis on safety and recreational diving. An introduction to use of mask, fins, snorkel and scuba equip-

ment. Emphasis on personal safety and knowledge of underwater life. Must be able to: swim 200 yards, tread water for 10 minutes or consent of instructor. Swim test is given on the first day of class. Course fee applies. May not receive credit for both PHEC 210 and ODEL 210. **Three hours per week.**

212. ADVANCED SCUBA

1 hour credit

The PADI Advanced Diving Program consists of five Adventure Dives. These include Peak Performance Buoyancy, Underwater Navigation, Night Diving, Deep Diving, and Search and Recovery Diving. These areas are covered and skill competencies developed in order to obtain advanced open water certification. Explain and demonstrate knowledge of the fundamentals involved in these topics. Course fee applies. May not receive credit for both PHEC 212 and ODEL 212. **Prerequisite:** PHEC 210 or ODEL 210. **Two hours per week.**

220. CANOEING AND KAYAKING

3 hours credit

This experiential 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. American Canoe Association Certification available. Course fees apply; contact minor coordinator. May not receive credit for both PHEC 220 and ODEL 220. **Prerequisite:** PHEC 201 or ODEL 201. **Three hours per week.**

221. WILDERNESS NAVIGATION

3 hours credit

Study of techniques for navigating in wilderness settings, including topographical map reading, orienteering and the use of global positioning systems. Study of alternative methods of navigation, and testing and application of skills in classroom and outdoor settings. Weekend off-campus field experience required. Course fees apply; contact minor coordinator. May not receive credit for both PHEC 221 and ODEL 221. **Prerequisite:** PHEC 201 or ODEL 201. **Three hours per week.**

370. CAMP LEADERSHIP AND MANAGEMENT

3 hours credit

Study of the history, objectives and trends of organized camping, including organization of day, residential and high-adventure camps. Learn administrative best practices for staff hiring and training, techniques of camp counseling, program planning and an introduction to campcraft skills. Course fees apply; contact minor coordinator. May not receive credit for both PHEC 370 and ODEL 370. **Prerequisite:** PHEC 201 or ODEL 201. **Three hours per week. (spring semester only)**

371. OUTDOOR LEADERSHIP TECHNIQUES

3 hours credit

Study of techniques for planning, promoting and leading outdoor adventure activities with special emphasis on understanding leadership theory, minimizing risk and liability, and promoting sustainable practices. Weekend off-campus field experience required. Course fees apply; contact minor coordinator. May not receive credit for both PHEC 371 and ODEL 371. **Prerequisite:** PHEC 201 or ODEL 201. **Three hours per week.**

472. HIGH AND LOW ROPES COURSE FACILITATION

3 hours credit

Introduces students to experiential, adventure-based education. Study and practice principles and theories of leadership education within a cooperative learning approach. May not receive credit for more than one of the following: PHEC 372, PHEC 472, ODEL 472. Course fees apply; contact minor coordinator. **Three hours per week.**

572. ADVENTURE-BASED LEADERSHIP EDUCATION**3 hours credit**

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.**

PHILOSOPHY (PHIL)**101. INTRODUCTION TO PHILOSOPHY****4 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 with enhancement. Meets General Education IIIA or IIIC.**

103. CRITICAL THINKING**4 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 with enhancement. Meets General Education IIIA or IIIC.**

202. INTRODUCTION TO SYMBOLIC LOGIC**4 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 with enhancement. Meets General Education IIIA or IIIC.**

203. ETHICS**4 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 with enhancement. Meets General Education IIIA or IIIC.**

207. PHILOSOPHY OF EDUCATION**4 hours credit**

An introduction to seminal texts, central questions and rival traditions in the philosophy of education. Works from main authors in Western philosophy are read to address questions about education and schooling as dimensions of human life. Develop an appreciation of the role of philosophy for personal and communal growth, and to form one's own philosophy of education. This course has a civic engagement component. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

209. PHILOSOPHY AND CULTURE**4 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 with enhancement. Meets General Education IIIA or IIIC.**

210. NATURE, SCIENCE AND RELIGION**4 hours credit**

Science and religion sometimes make conflicting claims about nature and human nature. Throughout history the two enterprises have reacted to and shaped one another in diverse ways. Introduction to past and current thinking about the relations between science and religion. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

290. PROSEMINAR IN PHILOSOPHY**4 hours credit**

Careful study of selected important texts in the history of philosophy with the purpose of developing reading and writing skills. Intended to prepare new majors for upper-level courses, required for philosophy majors and recommended for minors. **Prerequisite:** Students must have declared a major or minor in philosophy. **Three hours per week with enhancement.**

300. PHILOSOPHY OF THE ARTS**4 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 emotions 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 with enhancement. Meets General Education IIIA or IIIC.**

301. VIOLENCE AND NONVIOLENCE**4 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 with enhancement. Meets General Education IIIA or IIIC.**

305. POLITICAL PHILOSOPHY**4 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 with enhancement.**

306. ANIMALS AND ETHICS**4 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 with enhancement.**

**307. MIND, LANGUAGE AND WORLD:
THEMES IN ANALYTICAL PHILOSOPHY****4 hours credit**

Examines the relationship between the mind and the world and the role of language within this relationship. Some typical questions that form the topic of discussion are "What is the mind?", "Can (some) machines think?", "How does the mind represent the world?", "How does language refer to the world?" and "Is it possible to have thought without language?" **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week with enhancement.**

308. ANCIENT PHILOSOPHY**4 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 with enhancement.**

309. MEDIEVAL PHILOSOPHY**4 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 with enhancement.**

310. PHILOSOPHICAL TOPICS

4 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 with enhancement.**

311. MODERN PHILOSOPHY

4 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 with enhancement.**

312. INTRODUCTION TO ASIAN PHILOSOPHY

4 hours credit

Examines some of the main philosophical ideas of Indian, Tibetan, Japanese and Chinese thought. Emphasis is on the following question: 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 with enhancement. Meets General Education IIIA or IIIC.**

313. STUDIES IN THE HISTORY OF PHILOSOPHY

4 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 with enhancement.**

315. LIFE AND DEATH ISSUES IN HEALTH CARE: THE ETHICAL PERSPECTIVE

4 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 with enhancement. Meets General Education IIIA or IIIC.**

316. PHILOSOPHY AND FEMINISM

4 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 with enhancement. Meets General Education IIIA or IIIC.**

317. 19TH CENTURY PHILOSOPHY

4 hours credit

A study of various philosophical movements and figures within 19th-century Europe. Explores questions of progress, history and moral change, and contrasts systematic, hermeneutical and creative philosophical methodologies. Special emphasis on post-Kantian philosophy and Hegel. **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week with enhancement.**

318. ENVIRONMENTAL RESPONSIBILITY

4 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 with enhancement. Meets General Education IIIA or IIIC.**

319. LAW AND MORALITY

4 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 with enhancement. Meets General Education IIIA or IIIC.**

321. RACE AND ETHNICITY

4 hours credit

Explores some of the philosophical questions that arise in regard to the concepts of race and ethnicity, such as: What is "race"? Is it a valid biological category? What is "ethnicity"? Are race and ethnicity central to one's sense of self? What race is a mixed-race person? Is racist and ethnic discrimination primarily an emotion or a belief? Can people of color be racist? How can racist and ethnic discrimination be reduced? **Prerequisite:** One philosophy course. **Three hours per week with enhancement.**

322. EXISTENTIALISM

4 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 with enhancement.**

323. BUDDHIST PHILOSOPHY

4 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 with enhancement. Meets General Education IIIA or IIIC.**

324. TOPICS IN ASIAN PHILOSOPHY

4 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 with enhancement.**

325. PHILOSOPHY OF RELIGION

4 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 with enhancement.**

330. THEORY OF KNOWLEDGE

4 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 with enhancement.**

335. PHILOSOPHY OF SCIENCE

4 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 406. **Prerequisite:** One philosophy course or permission of instructor. **Three hours per week with enhancement.**

399. INTERNATIONAL STUDIES IN PHILOSOPHY

4 hours credit

Study abroad course that focuses on historical or contemporary philosophical issues that relate to the country in which the course is taught. May be taken twice for credit under different subtitles. **Prerequisite:** Permission of instructor. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

401. MORAL THEORY

4 hours credit

Examines the foundations and nature of morality. A study of metaethical and normative ethical questions, such as: Are claims about morals objective? If so, what makes them so? Are there general principles or rules that we should follow? Or is morality best understood in terms of virtues? **Prerequisites:** Two philosophy courses. **Three hours per week with enhancement.**

402. THE PROBLEM OF GOD

4 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 with enhancement.**

405. CONTEMPORARY CONTINENTAL PHILOSOPHY

4 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 with enhancement.**

408. METAPHYSICS

4 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 with enhancement.**

450. PHILOSOPHICAL CONCEPTS IN LITERATURE

4 hours credit

Examines a philosophical theme (e.g., existentialism, tragedy) as reflected in works of literature. Theme varies semester to semester. **Prerequisites:** ENGL 103 and one philosophy course or permission of instructor. **Three hours per week with enhancement.**

475. SEMINAR IN PHILOSOPHY

4 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 with enhancement.**

490. INDEPENDENT STUDY

1-4 hours credit

Tutorial course in a specific problem of philosophy, a particular 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 four hours per week.**

497. RESEARCH IN PHILOSOPHY

4 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 mentor, 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 with enhancement.**

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 particular 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)**

121. BASKETBALL

1 hour credit

Fundamental skills, techniques, rules and strategy of basketball. **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 techniques. **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 volleyball. **Two hours per week.** (P/F)

147. BADMINTON

1 hour credit

Fundamental skills, techniques, rules and strategy of badminton. **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, trudgeon, double trudgeon, trudgeon crawl, butterfly stroke and basic diving skills. **Prerequisite:** PHEC 105 or permission of instructor. **Two hours per week.** (P/F)

213. PREVENTION AND MANAGEMENT OF EXERCISE INJURIES

3 hours credit

Prevention, treatment and management of injuries and physical disabilities that effect exercise. Influence of training and program design on adaptations associated with diseases, functional disabilities and injuries that affect strengthening techniques. Theoretical and practical experience in exercise design and prescription for healthy and special-needs populations. Crosslisted with EXSC 213. **Three hours per week.**

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.**

408. MOVEMENT EDUCATION

3 hours credit

Analysis of the elements of human movement with practical applications to the teaching of physical education in grades K-12. Methods, materials, historical development, readings, practice. **Three hours per week.**

471. SPORT FOR DEVELOPMENT, PEACE AND SOCIAL CHANGE

3 hours credit

Explore the contextual factors that facilitate the use of sport as a psychosocial and development intervention, apply related sociological and psychological theory, and examine current international programs that utilize sport for development and psychosocial programming. Provide the skills to identify steps involved in planning a sport program for addressing development, peace and social change issues. **Prerequisite:** ENGL 103; SOCI 101 or CADR 200. **Three hours per week.**

479. PRACTICUM

3-12 hours credit

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.

480. SEMINAR

3 hour credit

Complements the practicum experience (PHEC 479). Students meet weekly to consider problems and issues encountered in the practicum. Encourages the synthesis of theory and practice through specific assignments and exercises chosen by the instructor. **Prerequisites:** Completion of core and track requirements. **Corequisite:** PHEC 479. **One hour per week.**

490. SELECTED TOPICS IN PHYSICAL EDUCATION

1-3 hours credit

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.

491. INDEPENDENT STUDY

1-3 hours credit

Advanced independent study of issues in physical education. May be repeated for a maximum of six hours.

590. SELECTED TOPICS IN PHYSICAL EDUCATION

1-3 hours credit

Provides opportunities for short-term needs and interest of students/faculty. Affords avenue for curriculum experimen-

tion and innovation at an advanced level. Student may earn a maximum of six credits.

PHYSICAL EDUCATION - TEACHER EDUCATION (PHED)

135. 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. May not receive credit for both PHED 135 and PHED 235. **Three hours per week.**

175. INTRODUCTION TO TEACHING FITNESS AND WELLNESS

4 hours credit

Provides information, strategies and resources to assist future physical educators or related professionals to lead health-related fitness activity. Engage in the application of health-related activities through planning and implementing such activities in small and large peer group applications, including individual and group exercise, strength training and aquatics. May not receive credit for both PHED 175 and PHED 108. Meets General Education V for athletic training, health education and physical education majors. **Prerequisite:** Health education and physical education teacher education majors only; PHEC 105 or intermediate swimming skills as determined by program area faculty. **Three hours lecture, three hours laboratory per week.**

245. MOVEMENT ACTIVITIES

3 hours credit

Introduction designed to assist preservice physical educators in identifying the connections between curricular concepts and movement education through the basis of national standards specific to grades K-12. Content includes the lesson planning and teaching of movement concepts, integrated lessons, and movement education enhanced by technology. **Three hours per week.**

260. TEACHING TEAM SPORTS CONCEPTS AND TACTICS I

3 hours credit

Application of fundamental skills and teaching progressions for game concepts and tactics in team sports. Emphasis on sequential development of tactical complexity including offensive and defensive strategies. May not receive credit for both PHEC 344 and PHED 260. **Three hours per week.** (*spring semester only*)

263. TEACHING TEAM SPORTS CONCEPTS AND TACTICS II

3 hours credit

A continuation of the application of fundamental skills and teaching progressions for game concepts and tactics in the field and court category. Emphasis on sequential development of tactical complexity including offensive and defensive strategies. **Three hours per week.**

275. MANAGEMENT AND INSTRUCTIONAL STRATEGIES IN PHYSICAL EDUCATION

4 hours credit

Introduction to management and instructional 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 lecture, two hours laboratory per week.**

350. ASSESSMENT IN PHYSICAL EDUCATION

3 hours credit

Provides teacher candidates with the skills needed to design and implement assessment strategies relevant to K-12 physical education. These assessment strategies are designed for the candidate to understand the link between student assessment and student learning as well as teacher planning and physical education class content. **Prerequisite:** Entrance to the Professional Teacher Education Program. **Three hours per week.**

351. PSYCHOSOCIAL ASPECTS OF PHYSICAL EDUCATION

3 hours credit

Interaction of physical education (sports) with the psychology and sociological development of the individual. May not receive credit for both PHEC 451 and PHED 451/351. **Three hours per week.**

352. MOTOR LEARNING

3 hours credit

Study of motor skill performance and learning. Topics include information processing, motor programs, individual differences, transfer, practice organization and feedback. Credit may not be received for both PHED 352 and 255. **Three hours per week.**

375. CONTEMPORARY CURRICULUM AND ANALYSIS OF TEACHING IN PHYSICAL EDUCATION

3 hours credit

Study of contemporary curriculums, principles and planning concepts with an emphasis on the analysis of effective teaching practices in physical education. Defines curriculum, explores the basis for curriculum planning, establishes an organizational plan for developing curriculum, and analyzes and assesses an established physical education program. Effective teaching practices and current issues and trends in systematic reflection are examined. **Prerequisite:** Entrance to the Professional Teacher Education Program. **Three hours per week.**

400. ADAPTED PHYSICAL EDUCATION

4 hours credit

Designed for physical education students preparing to enter the teaching field in K-12 education. Those students preparing for careers in health, recreation or youth-centered programs may also be served. Components include an overview of special education and adapted physical education, inclusion, developmental disorders, intellectual and physical disabilities, strategies for meeting individual needs, education through physical activity, designing appropriate goals, and understanding the Individual Education Plans (IEP) process as it relates to physical education. Provides opportunities for the acquisition of knowledge and skills required to meet the educational needs of students with disabilities in physical education as outlined by current legislation. Students gain practical experience in the adapted physical education setting with local schools. **Prerequisite:** Entrance to the Professional Teacher Education Program. **Three hours lecture, two hours laboratory per week.**

410. ELEMENTARY SCHOOL PHYSICAL EDUCATION

4 hours credit

Analysis of elementary school physical education teaching methods, program implementation and curricula. Emphasis on teaching effectiveness through reflective problem solving. Includes a field-based practicum experience at a local elementary school. Credit may not be received for both EDUC 343 and PHED 410. **Prerequisite:** Admission in Internship I. **Three hours lecture, eight hours practicum per week.**

420. SECONDARY SCHOOL PHYSICAL EDUCATION

4 hours credit

Analysis of secondary school physical education teaching methods, program implementation and curricula. Emphasis

on teaching effectiveness through reflective problem solving. Includes a field-based practicum experience at a local secondary school. Credit may not be received for both EDUC 371 and PHED 420. **Prerequisite:** Admission in Internship I. **Three hours lecture, eight hours practicum 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 403 and PHED 470. **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. **Three hours per week.** (P/F)

481. SEMINAR IN PHYSICAL EDUCATION

3 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)

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 hours lecture, two hours laboratory per week. Meets General Education IVA or IVB.**

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 109. **Three hours lecture, two hours laboratory per week. Meets General Education IVA or IVB.**

109. PRINCIPLES OF ASTRONOMY

3 hours credit

Introductory course for non-science majors. Principles of astronomy are developed in a conceptual way. Topics covered include scale of the universe, a guide to the sky, cycles of the sun and moon, atoms and spectra, the sun and stars,

structure and evolution of stars, the Milky Way and other galaxies, the solar system, and life on other worlds. May not be taken for credit if student already has credit for PHYS 108. **Three hours lecture per week. Meets General Education IVB.**

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 IVA or IVB.**

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 IVB.**

221. PHYSICS I

4 hours credit

Introduction to calculus-based Newtonian mechanics for students majoring in physics, engineering and chemistry. Topics include: kinematics, Newton's laws, conservation laws and rotational motion. **Prerequisite or Corequisite:** MATH 201. **Six hours lecture/activity per week. Meets General Education IVA or IVB.**

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.**

225. PHYSICS III

3 hours credit

Continuation of introductory calculus-based physics. Topics include: static equilibrium and elasticity, fluid mechanics, wave motion and thermodynamics. **Prerequisite:** PHYS 221. **Prerequisite/Corequisite:** MATH 202. **Four hours lecture/activity per week.**

309. MATHEMATICAL PHYSICS

3 hours credit

Survey of many important mathematical tools of classical physics. Topics include: coordinate systems, complex algebra, linear algebra, Fourier series, special functions, differential equations and vector calculus. Computer algebra system software is used. **Prerequisite:** PHYS 225. **Prerequisite/Corequisite:** PHYS 223, MATH 310. **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, Thevenin's and Norton's theorems, transient analysis, power supplies, diodes and transistors, operational amplifiers and an introduction to circuit simulation programs. **Prerequisite:** PHYS 309. **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

309. Prerequisite/Corequisite: MATH 311. **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 313. **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 313. **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 cir-

cuits, 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

1-3 hours credit

Intermediate level, individual research project in physics under supervision of a member of the faculty. May be repeated for up to six credits. **Prerequisites:** Eight credits of physics and departmental approval. **Two hours per week per credit.**

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. Topics include atomic, nuclear and solid state physics; electricity and magnetism, mechanics, optics; and thermodynamics. **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. Interfacing of memory and support chips such as USART. Programmable controllers, timers and peripheral I/O devices. Serial and parallel port interfacing. **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. Students summarize experiences in written reports with seminar presentations. **Prerequisites:** 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 credits of physics and/or engineering, or department chair 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
4 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 with enhancement. Meets General Education IIIB or IIIC.**

103. INTRODUCTION TO AMERICAN PUBLIC POLICY
4 hours credit

Provides an introduction to the field of public policy analysis within the context of American government and politics. Basic concepts and explanations related to the policy making structures and processes within the federal government of the U.S. are explored, including the Congress, the presidency, the bureaucracy and the federal courts. The role played by interest groups, classes, social movements and the media are reviewed and evaluated. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

110. AMERICAN NATIONAL GOVERNMENT
4 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 with enhancement. Meets General Education IIIB or IIIC.**

112. CONTEMPORARY ISSUES
4 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. May not receive credit for both POSC 102 and POSC 112.. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

200. POLITICAL IDEOLOGIES
4 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 with enhancement. Meets General Education IIIB or IIIC.**

202. STATE AND LOCAL GOVERNMENT
IN THE UNITED STATES
4 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 with enhancement. Meets General Education IIIB or IIIC.**

204. TOPICS IN POLITICAL SCIENCE
4 hours credit

Analysis of recent international or national issues which helps students understand the complex contemporary political environment. May be taken twice under different course titles. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

205. WOMEN IN POLITICS
4 hours credit

Study of the recent history and politics of women's rights in the U.S. and the impact of the women's movement in its various manifestations. Examines the route to political activism taken by women and the issues that unite and divide them. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

210. INTRODUCTION TO INTERNATIONAL RELATIONS
4 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 with enhancement. Meets General Education IIIB or IIIC.**

211. COMPARATIVE POLITICS OF LATIN AMERICA
4 hours credit

Introduces the political structures, cultures, institutions and actors in Latin America. Covers political conflict, including revolutions, coups and social movements; processes of democratization and evaluations of democratic performance; policies of economic development and reform; and connections between domestic and regional policies. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

213. WAR AND PEACE IN THE MIDDLE EAST
4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

215. AMERICAN FOREIGN POLICY**4 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 with enhancement. Meets General Education IIIB or IIIC.**

220. COMPARATIVE GOVERNMENT OF EAST ASIA**4 hours credit**

Survey of important topics for understanding of East Asian politics today. Emphasis on format and functions of political institutions, historical background, democratization, economic development, social problems and foreign relations. **Prerequisite:** C or better in POSC 101, 103 or 210. **Three hours per week with enhancement.**

230. JUDICIAL PROCESS AND POLITICS**4 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 with enhancement.**

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:** C or better in POSC 101 or 103, sophomore standing or above. **Three hours lecture, one two-hour laboratory per week.**

301. POLITICAL PARTIES AND PRESSURE GROUPS**4 hours credit**

Descriptive and analytical examination of American political parties and pressure groups with attention to political socialization and voting behavior. **Prerequisite:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

310. COMPARATIVE EUROPEAN GOVERNMENT**4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

311. COMPARATIVE GOVERNMENT OF DEVELOPING NATIONS**4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

313. COMPARATIVE POLITICS OF THE MIDDLE EAST**4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

315. THE PRESIDENCY IN AMERICAN POLITICS**4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

320. PUBLIC POLICY ANALYSIS**4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

330. AMERICAN CONSTITUTIONAL DEVELOPMENT**4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

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. May be taken three times for a total of nine credits. **Prerequisites:** C or better in POSC 101 or 103, 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:** C or better in POSC 101 or 103, permission of instructor.

360. ENVIRONMENTAL POLICY**4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement. Three hours per week. Meets General Education IIIB or IIIC.**

370. DEMOCRACY**4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

390. INTERNATIONAL FIELD STUDY**4-8 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

4 hours credit

Examines topics of broad trans-disciplinary scope and interest in conjunction with one or more other departments. **Three hours per week with enhancement.**

401. POLITICAL THEORY

4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

408. POLITICAL VIOLENCE AND TERRORISM

4 hours credit

Investigates the political, social, cultural, economic and psychological roots of several types of political violence: international terrorism, state terrorism, inter-communal and secessionist violence, genocide, revolution and civil war. For each type of violence, the course examines theories that explain the cause of violence and case examples from historical experience. **Prerequisite:** Junior standing. **Three hours per week with enhancement.**

409. CAUSES OF WAR

4 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 with enhancement. Three hours per week. Meets General Education IIIB or IIIC.**

411. INTERNATIONAL LAW

4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

413. INTERNATIONAL POLITICAL ECONOMY

4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

415. THE UNITED NATIONS SYSTEM

4 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:** C or better in POSC 101 or 103 or 210. **Three hours per week with enhancement.**

420. POLITICS OF CHINA

4 hours credit

Survey of important topics for understanding of China today. Emphasis on format and functions of Chinese political institutions, Imperial China and its fall, the rise of the Chinese Communist Party, the politics under Mao, economic reforms, social problems, and foreign relations. **Prerequisite:** C or better in POSC 101, 103 or 210. **Three hours per week with enhancement.**

430. THE CONGRESS IN AMERICAN POLITICS

4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

440. PUBLIC ADMINISTRATION

4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

450. CIVIL RIGHTS AND LIBERTIES

4 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:** C or better in POSC 101 or 103. **Three hours per week with enhancement.**

460. ENVIRONMENTAL LAW

4 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 with enhancement.**

480. STUDIES IN POLITICAL SCIENCE

4 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:** C or better in POSC 101 or 103, junior standing and above. **Three hours per week with enhancement.**

490. INDIVIDUAL RESEARCH

1-4 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:** C or better in POSC 101 or 103. **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:** C or better in POSC 101 or 103 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:** C or better in POSC 101 or 103 or 210. **Three hours per week.**

530. 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:** C or better in POSC 101 or 103. **Three hours per week.**

540. 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:** C or better in POSC 101 or 103. **Three hours per week.**

580. 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. **Prerequisite:** C or better in POSC 101 or 103. **Three hours per week.**

590. 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.

PSYCHOLOGY (PSYC)

101. GENERAL PSYCHOLOGY**4 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 with enhancement. Meets General Education IIIB or IIIC.**

220. PSYCHOLOGICAL STATISTICS**4 hours credit**

Methods of data analysis, including statistical concepts, calculations and computer applications. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

300. DEVELOPMENTAL PSYCHOLOGY**4 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 with enhancement.**

301. BIOLOGICAL BASIS OF BEHAVIOR**4 hours credit**

Introduction to the biological basis of behavior with emphasis on the anatomy and physiology of nerve cells and the nerv-

ous system, the effects of drugs on the nervous system, and other introductory topics. **Prerequisites:** PSYC 101. **Three hours per week with enhancement.**

302. ABNORMAL PSYCHOLOGY**4 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 with enhancement.**

304. RESEARCH METHODS**4 hours credit**

Study of the scientific method and principles of research design and their application to the study of psychology. **Prerequisites:** PSYC 220. **Three hours per week with enhancement.**

305. PSYCHOLOGY OF LEARNING**4 hours credit**

Survey of basic learning paradigms, including classical and operant conditioning, with an emphasis on experimental research using non-human animals. Applications of these theories are also discussed in terms of human behavior. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

306. SOCIAL PSYCHOLOGY**4 hours credit**

Scientific study of the behavior and thought of individuals as a function of social stimuli. Topics include persuasion, social cognition, prejudice, attraction, aggression, pro-social behavior and group processes. **Prerequisites:** PSYC 101. **Three hours per week with enhancement.**

313. DRUGS AND BEHAVIOR**4 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 with enhancement.**

320. PSYCHOLOGY OF INFANCY AND CHILDHOOD**4 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 or 30 credit hours. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

321. PSYCHOLOGY OF ADOLESCENCE**4 hours credit**

Study of physical, emotional and social development of the adolescent. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

322. PSYCHOLOGY OF AGING**4 hours credit**

Comprehensive study of aging—the final developmental period in the lifespan. Topics covered include research methodology, physical aging, cognitive aging, life span developmental issues, relationships, well being and mental health. **Prerequisite:** PSYC 101. **Ten hours of volunteer work with the elderly per semester, three hours per week with enhancement.**

323. PSYCHOLOGY OF DEATH AND DYING**4 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 with enhancement.**

325. PSYCHOLOGY OF SEXUALITY

4 hours credit

Scientific study of human sexuality. Topics include sexual physiology, behaviors and attitudes, love and sexual relationships, sexual health, sexual dysfunction, gender and sexual coercion. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

333. EFFECTIVE PARENTING

4 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 with enhancement.**

334. PSYCHOLOGY OF WOMEN

4 hours credit

Scientific study of the psychological experience and functioning of women. Topics include gender roles, work, relationships, childbirth, physical health, eating disorders and sexual victimization. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

360. CLINICAL/COUNSELING PSYCHOLOGY

4 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 with enhancement.**

375. PSYCHOLOGY AND THE LAW

4 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 standing is suggested. **Three hours per week with enhancement.**

401. PHYSIOLOGICAL PSYCHOLOGY

4 hours credit

Presentation of advanced topics on physiological psychology including the morphological, neurochemical and physiological bases of behavior. **Prerequisites:** PSYC 301. **Three hours per week with enhancement.**

402. CHILDHOOD DISORDERS

4 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 with enhancement.**

403. MEASUREMENT AND EVALUATION IN PSYCHOLOGY

4 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 with enhancement.**

406. PSYCHOLOGY OF ATTITUDES AND ATTITUDE CHANGE

4 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 with enhancement.**

407. PSYCHOLOGY OF PERSONALITY

4 hours credit

Survey of major theoretical approaches to the origin and development of human personality. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

408. HISTORY AND SYSTEMS IN PSYCHOLOGY

4 hours credit

Study of basic integrating theories of psychology. **Prerequisites:** PSYC 101, junior standing. **Three hours per week with enhancement.**

409. ENVIRONMENTAL PSYCHOLOGY

4 hours credit

Study of the effects of the constructed environment and natural environment on human behavior. Consideration is given to such topics as ambient temperature, architecture, density, crowding, urban stress, environment attitudes and behavior change. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

410. MULTICULTURAL ISSUES

4 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 standing. **Three hours per week with enhancement.**

412. PSYCHOLOGY OF RELIGION

4 hours credit

Provides a psychological perspective of religion and spirituality by focusing on empirical findings regarding the behavior and cognitive processes of individuals engaged in religious and spiritual activities. Explores religion psychologically by asking questions to which theory and research can be applied in pursuit of answers. **Prerequisites:** PSYC 101. **Three hours per week with enhancement.**

415. COMMUNITY AND APPLIED SOCIAL PSYCHOLOGY

4 hours credit

Provides an overview of ecological perspectives on causes and treatment of psychological and social problems, with a focus on prevention, empowerment and understanding "person in context." Topics covered include community diversity, coping, prevention, community action and community organizing, processes of social change, and community empowerment. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

420. POLITICAL PSYCHOLOGY

4 hours credit

Provides an overview of modern theories and frameworks of political psychology. Focus is on the interconnectedness of patterns of behavior that lead to a wide range of political behavior. Theories and frameworks include personality, cognitive, attitudes, social identity, emotions and group dynamics. Topics include presidential leadership, voting behavior, media influences on political thinking, race and political behavior, ethnic conflict and genocide, nationalism, terrorism, and conflict resolution. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

423. DEVELOPMENTAL DISABILITIES

4 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 with enhancement.**

425. PSYCHOLOGY AND GLOBAL CLIMATE CHANGE
4 hours credit

Explores issues pertaining to the cause of, mitigation of and adaptation to contemporary changes in the earth's climate, with consideration of relevant beliefs, attitudes, stress/emotion, behavior and socio-political factors. Discussion-based seminar format. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

430. APPLIED BEHAVIOR ANALYSIS
4 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 with enhancement.**

445. COGNITIVE PSYCHOLOGY
4 hours credit

Study of human cognitive processing. Topics include perception, attention, memory, problem solving, language, reasoning and decision making. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

446. FUNDAMENTALS OF HUMAN NEUROPSYCHOLOGY
4 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 standing. **Three hours per week with enhancement.**

450. SENSATION AND PERCEPTION
4 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 301. **Three hours per week with enhancement.**

481. HEALTH PSYCHOLOGY/ BEHAVIORAL MEDICINE
4 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 standing is suggested. **Three hours per week with enhancement.**

482. NATURE-NURTURE ISSUES
4 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 standing. **Three hours per week with enhancement.**

483. AUTISM SPECTRUM DISORDERS
4 hours credit

Offers an in-depth look at Autism Spectrum Disorders through primary readings on historical perspective, clinical presentation, assessment, etiology, treatment, and compari-

son to typical development during infancy and toddlerhood. **Prerequisites:** PSYC 101 or 320. **Three hours per week with enhancement.**

485. PSYCHOLOGY PRACTICUM
3-4 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.)

486. INTERNSHIP IN PSYCHOLOGY
4 hours credit

Internship experience for psychology majors in a variety of clinical or non-clinical settings. Provides faculty and peer mentorship on a variety of professional development topics. 135 internship hours required. May be repeated for a maximum of 8 credits. **Prerequisite:** Permission of instructor. (P/F with pass equivalent to C or better.)

490. INDIVIDUAL DIRECTED STUDY
1-4 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 eight credits. **Prerequisite:** Permission of instructor.

495. SELECTED TOPICS IN PSYCHOLOGY
4 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 eight hours credit. **Prerequisite:** PSYC 101. **Three hours per week with enhancement.**

497. RESEARCH IN PSYCHOLOGY
4 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 standing, permission of faculty mentor. May be repeated for a maximum of eight hours credits.

PUBLIC AFFAIRS AND CIVIC ENGAGEMENT (PACE)

211. CIVIC ENGAGEMENT: AN INTRODUCTION FOR PRESIDENTIAL CITIZEN SCHOLARS
2 hours credit

Introduces concepts and strategies for civic engagement. Presidential Citizen Scholars explore the theory and practice of active and engaged citizenship. Identify and investigate a significant community issue culminating in a group presentation. Make extensive use of the greater Salisbury community, including purposeful field trips and participation in community events. **Prerequisite:** Acceptance to the Presidential Citizen Scholars Program. **One and one-quarter hours per week.**

311. CIVICALLY ENGAGED: A CAPSTONE FOR PRESIDENTIAL CITIZEN SCHOLARS
2 hours credit

Continues concepts and strategies for civic engagement introduced in the first year of the Presidential Citizen

Scholars Program. Presidential Citizen Scholars apply the theory and practice of active and engaged citizenship. Work to address a significant issue. Work culminates in a campus/community presentation of efforts. Make extensive use of the greater Salisbury community, including purposeful field trips and participation in community events. **Prerequisite:** PACE 211. **One and one-quarter hours per week.**

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 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

4 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. Certifications in Neonatal Resuscitation and Pediatric Advanced Life Support are included. **Prerequisite:** Senior standing or permission of instructor. **Three 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**4 hours credit**

Emphasis on the development of critical thinking skills regarding the appropriate therapy for patients receiving respiratory care. Problem-based learning, case examples, computer simulation and frequent physician input allow students to develop an enhanced understanding of the importance of appropriate respiratory care. **Prerequisites:** Senior standing, RESP 401, 402, 403, 404 with C or better or permission of instructor. **Three hours lecture, two hours laboratory 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**4 hours credit**

Emphasis on sophisticated cardiopulmonary monitoring including airway assessment, ECG analysis, arrhythmia identification and therapeutic management of a patient in respiratory or cardiac arrest. Advanced Cardiac Life Support certification offered. **Prerequisites:** Senior standing, RESP 401, 402, 403, 404 with C or better or permission of instructor. **Three hours lecture, two hours laboratory per week.**

458. CRITICAL CARE:**A MULTI-PROFESSIONAL APPROACH****3 hours credit**

Introduces students to collaborative critical care practice. Prepares students interested in critical care clinical practice to recognize and categorize causes of sudden deterioration of the critically ill patient. Teaches appropriate treatment and interventions for the deteriorating critically ill patient. **Prerequisites:** Admission to nursing or respiratory therapy major; Nursing: NURS 310, 311, 350, 351 with C or better; Respiratory Therapy: Senior status with successful completion of all junior-level courses and concurrent enrollment in all senior-level coursework; or permission of instructor. Cross-listed with NURS 458. **Three hours 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****4 hours credit**

Beginning spoken and written Russian with emphasis on the alphabet, sound system, basic structures of the language and contemporary culture. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102. ELEMENTARY RUSSIAN II**4 hours credit**

Continued development of listening, speaking, reading and writing in Russian with further study of major grammatical structures and contemporary culture. **Prerequisite:** RUSS 101 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

201. INTERMEDIATE RUSSIAN**4 hours credit**

Continued development and refinement of language skills as well as exposure to contemporary culture. **Prerequisite:** RUSS 102 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

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 THE SOCIAL WORK PROFESSION****4 hours credit**

Introduces the social work profession and provides an overview of fields of social welfare services. Explores the various professional roles social workers play in working in each field. Examines the social welfare system as a society's response to human need and structure for delivery of social services. Thirty hours of volunteer service in a social agency required. **Three hours per week with enhancement.**

300. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I

4 hours credit

Examines human development in the social environment using the bio-psycho-social-cultural-spiritual perspective. Explores developmental theories to help inform social work assessment at the micro and mezzo levels of practice. Examines both the developmental and problematic aspects of the stages of the life cycle. Discusses the social systems of individual, family, group, community and society. Develops foundation assessment skills. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

302. HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II

4 hours credit

Examines communities, groups and organizations as social systems and environmental contexts. Reflects social work's values and principles in the macro social environment and the integration of theories drawn from sociology, psychology, biology, anthropology and economics to understand and critically analyze the multiple influences on human behavior as affected by race, class, gender, age and sexual orientation. Develops macro-assessment skills within the framework of empowerment. **Prerequisites:** SOWK 200, 300 or permission of instructor. **Four hours per week.**

306. SOCIAL WELFARE HISTORY AND CONTEMPORARY ISSUES

4 hours credit

Provides an introduction to the field of social welfare, primarily in the United States and major social movements. Examines the history of the social welfare system and social work profession, in the context of societal factors with particular attention to the intersectionality of race, class and gender. Explores the impact of values and beliefs on the development of the modern U.S. social welfare system. Investigates the dynamics of privilege and oppression as part of the political, economic and social factors that influence the policies and services provided by social work practitioners. **Prerequisite:** SOWK 200 or permission of the instructor. **Four hours per week.**

309. PRIVILEGE AND OPPRESSION

4 hours credit

Introduces and sensitizes students to the major concepts of cultural diversity, race, ethnicity, national origin, gender, age, class, sexual orientation, physical and mental abilities, pluralism and conflicts caused by ethnocentrism, discrimination and prejudice. Explores the relationship and intersection between these major concepts and social work practices and policies. Emphasizes the examination of major ethnic groups as well as other social groupings based on such factors as gender, religion, national origin, age, sexual orientation, physical and mental abilities, and other differences in human populations. Evaluates the common elements of oppressions and prejudicial and discriminatory practices from both micro and macro theoretical frames of reference. Explores the application of the ecological perspective, generalist and problem-solving process. **Prerequisites:** SOWK 200, sophomore standing or permission of instructor. **Four hours per week.**

310. BASIC INTERVIEWING: SKILLS AND TECHNIQUES

2 hours credit

Develop basic interviewing skills for assessing, goal setting and intervention for use in home service and social work settings. Emphasizes skill application with diverse populations. **Prerequisite:** Junior standing. **Two hours per week.**

320. SOCIAL WORK PRACTICE I

4 hours credit

Prepares students for a generalist approach to social work practice with individuals. Emphasizes knowledge, values, ethics and skills needed to develop effective helping relation-

ships. Includes basic theories for intervention with focus on micro level problem solving and basic interview skills.

Prerequisites: Admission to professional program. **Three hours per week with enhancement.**

330. SOCIAL WELFARE POLICY PRACTICE: ANALYST AND ADVOCATE

4 hours credit

Builds upon the foundation content of SOWK 306, providing understanding of social welfare policy analysis with micro, mezzo and macro social work policy practice knowledge skills. Prepares students to participate in the policy-making process, integrating both policy analytical and formulation skills, as well as understanding the methods and strategies for advocating for policy change and new policies.

Prerequisites: SOWK 200, 306. **Four hours per week.**

350. SOCIAL WORK WITH OLDER PEOPLE

4 hours credit

Presents an integrated biopsychosocial approach to human behavior in older people. Addresses changes in demographic patterns and family patterns, which affect older adults today. Includes an overview of social work practice with older people, and the policies and programs that serve them. Examines differences between and among special populations with increased emphasis on race, class, gender and sexual orientation. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

400. SOCIAL WORK PRACTICE II

4 hours credit

Prepares students for a generalist approach to social work practice involving families and groups. Expands basic knowledge, values, ethics and skills, with emphasis on mezzo level problem solving. Includes theories and techniques for planning, assessment, direct intervention and advocacy with small groups and families. **Prerequisites:** SOWK 320, admission to the professional program. **Corequisites:** SOWK 416, 420. **Four hours per week.**

410. SOCIAL WORK PRACTICE III

4 hours credit

Prepares students for a generalist approach to social work with large systems. Applies the planned change process with macro practice, specifically with organizations and communities. Expands basic knowledge, values, ethics and skills, with emphasis on macro level problem solving. **Prerequisite:** Admission to professional program, SOWK 320, 400, 416, 420. **Corequisites:** SOWK 421, 417. **Three hours per week with enhancement.**

416. SOCIAL WORK RESEARCH I

4 hours credit

The first of two courses in social work and evaluation research. Emphasizes the development and use of scientific knowledge and the application of that knowledge to evaluate social work interventions and program evaluation. Explores applied research methodologies to enhance the student's use of evidence-based social work knowledge and skills. May be repeated only once with permission of the department. **Prerequisite:** Admission to the professional program, senior standing. **Corequisites:** SOWK 400, 420. **Four hours per week.**

417. SOCIAL WORK RESEARCH II

4 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. Includes focus on program evaluation, single-subject designs, data analysis, descriptive and inferential statistics, presentation of data, report writing and application of findings to practice. Explores applied research methodologies that will enhance the student's use of evidence-based interventions. May be repeated only once with

permission of the department. **Prerequisites:** Admission to the professional program, senior standing, SOWK 416. **Corequisites:** SOWK 410, 421. **Four hours per week.**

420. FIELD INSTRUCTION IN SOCIAL WORK I
4 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. Successful completion of the two-course sequence requires a student to fulfill a minimum of 440 hours of field instruction within the same social welfare agency accumulated across the fall and spring semesters. **Prerequisites:** SOWK 302, 320, admission to the professional program. **Corequisites:** SOWK 400, 416. **Two working days per week.**

421. FIELD INSTRUCTION IN SOCIAL WORK II
4 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. Successful completion of the two-course sequence requires a student to fulfill a minimum of 440 hours of field instruction within the same social welfare agency accumulated across the fall and spring semesters. **Prerequisites:** SOWK 400, 416, 420. **Corequisites:** SOWK 410, 417. **Two working days per week.**

450. SOCIAL WORK WITH FAMILIES AND CHILDREN
4 hours credit

Examines child welfare services and current policies in social work for children and their families. Explores the history of child welfare, the role current social problems such as poverty, teen pregnancy, violence, addiction, homelessness, human trafficking and war play in today's changing family. Provides an overview of the range of services available for families and children within the child welfare delivery system, including in-home services, foster care and adoption. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

451. BEHAVIORAL HEALTH
4 hours credit

Introduces theoretical perspectives on substance misuse and mental health, including a working knowledge of their incidence and prevalence. Provides an overview of physiological, psychological and social impacts influenced by substance misuse and mental health with particular emphasis on vulnerable populations. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

452. HUMAN RIGHTS AND WOMEN
4 hours credit

Provides the foundational knowledge of human rights development and principles as it relates to the experiences of women in the U.S. and around the globe, emphasizing the intersecting identities of gender, race and class. Examines the role of traditions and laws in maintaining systems of oppression and strategies that women have used to advance their rights. Develops and applies social work practice skills to raise awareness about human rights violations experienced by women. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

453. CHILDREN'S GRIEF AND BEREAVEMENT
4 hours credit

Explores the psychosocial aspects of loss for children and teens. Builds on systems theory and knowledge of human behavior and development with a focus on the grief process and different types of loss, including traumatic and complicated loss. Offers an experiential learning requirement through the participation in a children's grief camp, where students apply skills in grief support through art, play, music and other expressive approaches to guide children through grief

expression. This is a hybrid class that includes online instruction and participation in face-to-face children's grief volunteer activities. **Prerequisite:** Admission to the professional program or permission of instructor. **Four 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.**

475. DISABILITIES STUDIES: CULTURE AND PRACTICE
4 hours credit

Provides an overview of physical, social and emotional implications of being differently abled within the context of generalist social work practice. Examines the life course of people who are differently abled, including the collaboration of families and community, the role of social workers and other health professionals, as well as presenting general issues related to services available, advocacy movements and social policy. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

480. SOCIAL WORK AND DISASTER MENTAL HEALTH
4 hours credit

Prepares students for a generalist approach to social work with individuals, groups and communities that have experienced crisis or disasters. Expands basic knowledge, values, ethics and skills with emphasis on addressing trauma and understanding of crisis intervention and disaster mental health practice. Examines the national emergency management structure and international disaster practices. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

481. TEEN ANGST: UNDERSTANDING ADOLESCENT HEALTH AND MENTAL HEALTH
4 hours credit

Examines trends in adolescent mental health and risk-taking behavior, from both social work and public health perspectives. Explores risk and protective factors, as well as prevention and intervention techniques. **Prerequisite:** Junior or senior status or permission of instructor. **Four hours per week.**

482. DEATH AND DYING AND SOCIAL WORK
3 hours credit

Introduction to the history, theoretical concepts, cultural traditions and clinical interventions related to the field of death and dying and how it pertains to social work. Traditional as well as contemporary models are explored. **Prerequisite:** Junior or senior status or permission of instructor. **Three hours per week.**

483. SOCIAL WORK PRACTICE IN RURAL ENVIRONMENTS
3 hours credit

Explore the unique problems and social needs of non-urban areas, particularly small towns and rural communities. Comprehend the social structure of such communities as well as the challenges of living in such areas, such as lack of, or remoteness of, resources, poverty and the need to seek alternative interventions to work with the client populations. **Prerequisite:** Junior or senior status or permission of instructor. **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.**

486. SOCIAL WORK WITH LGBTQ PERSONS

4 hours credit

Provides the foundation knowledge needed for generalist practice with Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) persons. Explores the lived experiences of LGBTQ persons in the U.S. across the lifespan and addresses some of the key social problems faced by this population. Explores the heterogeneity of LGBTQ lives across cultural, class, age, race, ethnic, religious and political cohorts and communities. Assumes a strengths-based affirmative model of social work practice with sexual minorities. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

487. SOCIAL WORK IN THE SCHOOLS

3 hours credit

Provides an integrated view of school social work, using a framework of policy and practice. A major focus is on the topics critical to school social work, including at-risk youth, school reform, school violence, multiculturalism, and roles of school social workers within expanded mental health and school-linked services. Draws on systems and strengths perspectives within the context of working with individuals, families, groups, organizations and communities. **Prerequisite:** Junior or senior status preferred or permission of instructor. **Three hours per week.**

489. SOCIAL JUSTICE AND THE ENVIRONMENT

4 hours credit

Examines the role of professional social work in the area of sustainability at the local, national and global levels as sustainability is a crucial link to the attainment of environmental, economic and social justice. Using an interdisciplinary perspective, explores the environmental, economic and social aspects of sustainability from theoretical and practical perspectives. **Prerequisite:** SOWK 200 or permission of instructor. **Four hours per week.**

490. INDIVIDUAL DIRECTED STUDY

1-4 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. **One to four hours per week.**

499. SPECIAL TOPICS

1-4 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. **Prerequisite:** SOWK 200 or permission of instructor. **One to four 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

3 hours credit

Focuses on the ethical issues in social work practice including a theoretical framework and ethical problem-solving model to systematically evaluate values and resolve ethical dilemmas found in social work practice. Provides tools and methodologies for reflection and analysis. **Prerequisite:**

Specialization Status or permission of department. **Three hours per week.**

607. SOCIAL WELFARE POLICY PRACTICE: ANALYST AND ADVOCATE

3 hours credit

Provides understandings of social welfare policy analysis with micro, mezzo and macro social work policy practice knowledge skills. Prepares for participation in the policy making process, integrating both policy analytical and formulation skills, as well as understanding the methods and strategies for advocating for policy change and new policies. **Prerequisite:** For graduate study only. **Three hours per week.**

610. THEORETICAL ANALYSIS OF BEHAVIOR I

3 hours credit

Focuses on the individual, family and peer group as a social system, and assessment using a bio-psycho-social-cultural-spiritual perspective. Explores human development through the lifespan. Presents analysis of several theories which explain human behavior and inform social work practice. Focus on privilege, oppression, prejudice and discrimination. Develops 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. May be repeated only once. **Prerequisite:** Admissions to program. **Corequisites:** SOWK 640 or permission of the department. **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. May be repeated only once with permission of the department. **Prerequisites:** SOWK 616. **Corequisite:** SOWK 645 or permission of the department. **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.**

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 mezzo level problem solving. Includes theories and techniques for planning, assessment and advocacy for family and small group interventions. **Prerequisites:** SOWK 620. **Three hours per week.**

623. SOCIAL WORK PRACTICE III

3 hours credit

Third of three practice courses preparing students for a gen-

eralist 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 620. **Prerequisite/Corequisite:** 622. **Three hours per week.**

630. THEORETICAL ANALYSIS OF BEHAVIOR II
3 hours credit

Examines the development of communities and organizations as social systems. Human behaviors as affected by race, class, gender, age and sexual orientation are a main component. Reflects social work's unique integration of theories drawn from sociology, psychology, biology, anthropology and economics to understand the multiple influences on behavior. Macro sociological theories for critical analyses of society, communities, social institutions and social organizations are presented. Develops macro assessment skills. **Prerequisite:** SOWK 610 or permission of department. **Three hours per week.**

640. FIELD INSTRUCTION I
3 hours credit

The first of a two-semester sequence of supervised experience in the delivery of social services where students are required to participate in an agency-based field practicum for two days a week under the supervision of an agency-based M.S.W. field instructor. Successful completion of the two-course sequence requires a student to fulfill a minimum of 440 hours of field instruction within the same social welfare agency accumulated across the two semesters. **Prerequisites or Corequisites:** SOWK 620, admission to graduate social work program. **Corequisites:** SOWK 616. **Two working days per week. A seminar with small group discussions on field experiences with related written assignments and activities conducted concurrently.**

645. FIELD INSTRUCTION II
3 hours credit

The second of a two-semester sequence of supervised experience in the delivery of social services, in the same agency students entered in SOWK 640, where students are required to continue an agency-based field practicum for two days a week under the supervision of an agency-based M.S.W. field instructor. Successful completion of the two-course sequence requires a student to fulfill a minimum of 440 hours of field instruction within the same social welfare agency accumulated across the two semesters. **Prerequisites:** SOWK 616, 640. **Prerequisites or Corequisites:** SOWK 617, 622, 623. **Two working days per week. A seminar with small group discussions on field experiences with related written assignments and activities conducted concurrently.**

650. ADVANCED PRACTICE WITH INDIVIDUALS
3 hours credit

Familiarizes the practitioner with strengths assessment and theories used when intervening with individuals. Utilizes concepts of theory-based intervention strategies tying accurate assessment to intervention plans. Specific assessment techniques, including qualitative and quantitative instruments, are explored. Emphasis on advanced interview skill techniques. **Prerequisite:** Specialization Status or permission of department. **Corequisite:** SOWK 665. **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. Models of chemical dependency, the dually diagnosed client and selected models of intervention are explored. **Prerequisite:** Specialization Status or permission of department. **Three hours per week.**

654. PSYCHOPATHOLOGY

3 hours credit

Provides extensive knowledge of the major forms of mental illness and its treatment. Develops competence in mental health assessment by mastering the accepted diagnostic code, DSM-5. 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:** Specialization Status or permission of department. **Three hours per week.**

655. EVALUATION OF SOCIAL WORK PRACTICE

3 hours credit

The study of practice-outcome research and program evaluation in social work. Students learn skills in grant writing and use of appropriate recording and measurement instruments for practice with individuals, groups, families and organizations. **Prerequisite:** SOWK 650 or permission of department. **Corequisite:** SOWK 685. **Three hours per week.**

660. ADVANCED PRACTICE WITH FAMILIES

3 hours credit

Builds upon theoretical perspectives and practice skills from both generalist and specialized practice 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/Corequisite:** SOWK 650 with a grade of C or better or permission of department. **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:** Specialization Status. **Three hours per week.**

665. FIELD INSTRUCTION III

4 hours credit

The first of a two-semester sequence of supervised advanced field practicum experience in the delivery of social services where students are required to participate in an agency-based field practicum for three days per week under the supervision of an agency-based field instructor with an M.S.W. Successful completion of the two-course sequence requires a student to fulfill a minimum of 672 hours of field instruction within the same social welfare agency accumulated across the two semesters. **Prerequisite:** Specialization Status. **Prerequisite/Corequisite:** SOWK 650 with a grade of C or better. **Three working days per week. A seminar with small group discussions on field experiences with related written assignments and activities conducted concurrently.**

677. CHILD WELFARE

3 hours credit

Designed to prepare advanced-level students 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:** Specialization Status or permission of department. **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 generalist practice courses, and theory and skills from the specialized practice curriculum. The course familiarizes the practitioner with the concept of the group as a therapeutic community and introduces theories and evidence-based models appropriate for group practice with diverse populations. **Prerequisite/Corequisite:** SOWK 650 with a grade of C or better or permission of department. **Three hours per week.**

685. FIELD INSTRUCTION IV

4 hours credit

The second of a two-semester sequence of supervised advanced field practicum experience in the delivery of social services where students are required to continue to work three days a week the same social welfare agency the student entered in SOWK 665 under the supervision of an agency-based field instructor with an M.S.W. Successful completion of the two-course sequence requires a student to fulfill a minimum of 672 hours of field instruction within the same social welfare agency accumulated across the two semesters. **Prerequisite:** SOWK 665 with a grade of C or better. **Corequisite:** SOWK 655. **Three working days per week. A seminar with small group discussions on field experiences with related written assignments and activities conducted concurrently.**

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.**

SOCIOLOGY (SOCI)

101. INTRODUCTION TO SOCIOLOGY

4 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 with enhancement. Meets General Education IIIB or IIIC.**

201. SOCIAL PROBLEMS

4 hours credit

Analysis of selected social problems in contemporary society. Emphasis on sociological understanding of the processes by which social problems are defined. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

210. LIVING IN A GLOBALIZED WORLD

4 hours credit

Focuses on the question: What does it mean to live in a globalized world? Explores global sociology through examination of issues such as globalization, international inequality and global social (in)justices, including world hunger, conflict zones and peace movements, indigenous populations and human rights, sustainable development, pollution and climate change. Enhances technological and information literacies as well as critical thinking and command of the language. Integrates knowledge developed in a variety of disciplines. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

220. THE FAMILY

4 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 with enhancement. Meets General Education IIIB or IIIC.**

225. SOCIAL CONFLICT AND ACHIEVING PEACE: A SOCIOLOGICAL PERSPECTIVE

4 hours credit

Focuses on questions about why humans use violence to resolve interpersonal, intergroup and international conflict by examining strategies of conflict management and peace-building and the sociology of 'positive' peace. Includes a civic engagement component requiring an average of three hours per week outside of class over the semester engaged in work with a local organization on peace-building. Enhances technological and information literacies as well as critical thinking and command of language. Integrates knowledge developed in a variety of disciplines. Cross-listed with CADR 225. May not receive credit for both CADR 225 and SOCI 225. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

250. DIASPORA AND TODAY'S RACE RELATIONS: A GLOBAL SOCIO-HISTORICAL PERSPECTIVE

4 hours credit

Explores the socio-history of diaspora and race relations and the meaning of inclusion in a diverse and globalized world. A distinctly global sociological approach to understanding diaspora and their resonance in our lives today is used to explore strategies to achieve an inclusive community. Includes a civic engagement component requiring an average of three hours per week outside of class over the semester engaged in work with a local organization working on inclusion. Enhances technological and information literacies as well as critical thinking and command of language. Integrates knowledge developed in a variety of disciplines. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

301. STUDIES IN SOCIOLOGY

4 hours credit

Selected areas in varied subfields of sociology. May be repeated under different subtitles. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

304. SOCIAL INEQUALITY

4 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 with enhancement. Meets General Education IIIB or IIIC.**

305. SOCIOLOGY OF LAW

4 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 with enhancement. Meets General Education IIIB or IIIC.**

313. CRIMINOLOGY AND PENOLOGY

4 hours credit

Consideration of crime and delinquency as forms of deviant behavior; examination of social causes, social reactions and applicable sociological theories. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

314. SOCIOLOGY OF GENDER

4 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 with enhancement. Meets General Education IIIB or IIIC.**

318. SOCIOLOGY OF RELIGION

4 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 with enhancement. Meets General Education IIIB or IIIC.**

319. THE SOCIAL VALUE OF HUMANS IN A GLOBALIZED WORLD

4 hours credit

Focuses on questions about technological change and human value(s) through exploration of social, economic, political and cultural globalization. Strategies for critical evaluation of policies and social practices associated with 'development' include examination of social inequalities globally and locally. Enhance technological and information literacies as well as critical thinking and command of language. Integrates knowledge developed in a variety of disciplines. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

320. SOCIAL MOVEMENTS

4 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 with enhancement. Meets General Education IIIB or IIIC.**

321. SOCIAL RESEARCH

4 hours credit

Introduction to qualitative and quantitative social research methods. Emphasis on research design, question formulation, sampling techniques, hypothesis testing, data analysis, computer processing and practical research activity. **Prerequisite:** Junior standing. **Three one-hour lectures, one two-hour laboratory per week.**

322. 'OVER' POPULATION/'OVER' CONSUMPTION

4 hours credit

Focus on how demographics, including changes in the size, composition and distribution of populations, interact with production, consumption and distribution of resources to meet human needs durably. Includes critical evaluation of factors associated with long-term changes in human population statistics and dynamics with an eye toward possible futures. Designed to enhance technological and information literacies as well as critical thinking and command of language. Integrates knowledge developed in a variety of disciplines. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

324. COMMUNITY SOCIOLOGY

4 hours credit

Investigation of communities as social systems emphasizing current directions in community research. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

325. SEXUALITY, ALTERNATIVES AND SOCIETY

4 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 with enhancement. Meets General Education IIIB or IIIC.**

326. SOCIAL INTERACTION

4 hours credit

Study of human behavior as social interaction. Emphasis on symbolic communication and its relationship to the concept of self. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

329. MEDICAL SOCIOLOGY

4 hours credit

Study of social factors involved in health and illness emphasizing the institution of medicine in American society. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

331. RACIAL AND CULTURAL MINORITIES

4 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 with enhancement. Meets General Education IIIB or IIIC.**

334. SOCIOLOGY OF MENTAL HEALTH

4 hours credit

Study of sociocultural factors in mental health and illness emphasizing social causation and patterns of distribution. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

339. IMMIGRATION

4 hours credit

The U.S. is a nation of immigrants and recent decades have seen a large upsurge in international migration to the United States, particularly from the Western Hemisphere and Asia. Focuses on explanations for this still-emerging process, as well as its impacts and implications for: the changing demographic make-up of the country (e.g., Hispanics/Latinos as the largest minority group), the labor force and economy, receiving and sending communities, adaptation and incorporation, education and health, and politics and policy debates. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

344. COMPLEX ORGANIZATIONS

4 hours credit

Analysis of the emergence of modern bureaucratic structure, emphasizing institutionalization, patterns of authority and impact on personality. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

361. AGING AND SOCIETY

4 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. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

363. GLOBAL GENDER EQUITY

4 hours credit

Focuses on the question: What empowers women? Explores issues of gender equity using socio-cultural theories of gender and development to examine women's (and men's) social roles across a range of globalized social contexts and geographic regions. Some familiarity with events and realities outside the U.S. is expected. Designed to enhance technological and information literacies as well as critical thinking and command of language. Integrates knowledge developed in a variety of disciplines. **Three hours per week with enhancement. Meets General Education IIIB or IIIC.**

390. SOCIOLOGY OF THE ENVIRONMENT

4 hours credit

Examines the environment as a social product. Uses the soci-

ological 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 with enhancement. Meets General Education IIIB or IIIC.**

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 IIIB or IIIC.**

409. SOCIOLOGY OF EDUCATION

4 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 with enhancement. Meets General Education IIIB or IIIC.**

416. INDIVIDUAL DIRECTED STUDY

1-4 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. **Up to 12 hours per week.**

421. THEORY I, FOUNDATIONS OF SOCIOLOGICAL THEORY

4 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 with enhancement.**

422. THEORY II, CONTEMPORARY SOCIOLOGICAL THEORY

4 hours credit

Analysis of the current state and future directions of sociological theory. **Prerequisite:** SOCI 101 or permission of instructor. **Three hours per week with enhancement.**

429. SENIOR EXPERIENCE

1 hour credit

Seminar designed to facilitate discussion about the organization and completion of research projects. This capstone experience is for students in their final year of the sociology program. **Prerequisite:** Senior standing. **One hour 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

4 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/SOCI 321 or permission of instructor. **Three hours per week with enhancement.**

498. INTERNSHIP IN SOCIOLOGY

1-4 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 four credits may be applied toward the sociology major. May be repeated once under a different community organization. Repeatable once to a maximum of eight credits. **Prerequisites:** SOCI 101 or 201, jun-

ior standing, permission of the instructor. **Up to 12 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.**

SPANISH (SPAN)

101. ELEMENTARY SPANISH I

4 hours credit

Beginning spoken and written Spanish with emphasis on the sound system and the basic structures of the language. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

102. ELEMENTARY SPANISH II

4 hours credit

Continued skill development in spoken and written Spanish with further study of major structures. **Prerequisite:** SPAN 101 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

201. INTERMEDIATE SPANISH

4 hours credit

Continued development and refinement of language skills with emphasis on reading, writing and vocabulary development. **Prerequisite:** SPAN 102 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

202. SPANISH IN REVIEW

4 hours credit

Refinement and application of language skills by exploring diverse forms of expression in Spanish. Satisfies the language requirement for English majors. **Prerequisite:** SPAN 201 or appropriate score on department placement exam. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

300. TOPICS IN SPANISH**4 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 or 313. **Three hours per week with enhancement.**

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**4 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. **Prerequisite:** SPAN 202 or appropriate score on department placement exam. **Three hours per week with enhancement.**

312. CONVERSATION**4 hours credit**

Develops confidence and correctness in spoken Spanish through practice in conversation, reports and discussions. **Prerequisite/Corequisite:** SPAN 310 or 313. **Three hours per week with enhancement.**

313. EFFECTIVE WRITING AND READING FOR SPANISH HERITAGE SPEAKERS**4 hours credit**

Refinement and application of language skills for bilingual speakers of Spanish who have not had formal training in the language at the college level. Students practice reading, writing and specific grammar and orthographic rules through selected authentic readings, guided compositions and class discussions. **Prerequisite:** Approval of instructor. **Three hours per week with enhancement.**

315. SPANISH CULTURE AND CIVILIZATION**4 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 or 313. **Three hours per week with enhancement.**

316. LATIN AMERICAN CULTURE AND CIVILIZATION**4 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 or 313. **Three hours per week with enhancement.**

319. INTRODUCTION TO SPANISH LINGUISTICS**4 hours credit**

Study of the main areas of linguistics, such as phonology, morphology, syntax and sociolinguistics, with special attention paid to the varieties of Spanish spoken in different countries in the U.S. **Prerequisite:** SPAN 310 or 313. **Three hours per week with enhancement.**

322. SPANISH FOR BUSINESS**4 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:** SPAN 310 or 313. **Three hours per week with enhancement.**

330. TOPICS IN HISPANIC LITERATURE IN TRANSLATION**4 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 318. **Prerequisite:** C or better in ENGL 103. **Three hours per week with enhancement. Meets General Education IB.**

335. SURVEY OF SPANISH LITERATURE**4 hours credit**

A survey of the foundational literary texts, authors and movements from the Middle Ages through contemporary Spain. **Recommended Prerequisite/Corequisite:** SPAN 310 or 313. **Three hours per week with enhancement. Meets General Education IB.**

336. SURVEY OF LATIN AMERICAN LITERATURE**4 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 or 313. **Three hours per week with enhancement. Meets General Education IB.**

400. ADVANCED STYLISTICS AND ORAL EXPRESSION**4 hours credit**

Refinement and sophistication of written and oral expression in Spanish. **Prerequisite:** SPAN 310 or 313, or permission of instructor. **Three hours per week with enhancement.**

403. HISPANIC CULTURE THROUGH LITERATURE**4 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 with enhancement.**

480. SENIOR SEMINAR**1-4 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. **Three hours per week with enhancement.**

496. SPANISH INDEPENDENT STUDY**1-4 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 eight credits. **Prerequisites:** Junior standing and permission of department chair.

497. UNDERGRADUATE RESEARCH**1-4 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 once for a maximum of eight credits. **Prerequisites:** Junior standing and permission of department chair and instructor who will direct study.

498. INTERNSHIP

4 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 eight 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.**

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)

100. THEATRE APPRECIATION

4 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 with enhancement. Meets General Education IIIA or IIIC.**

110. TECHNICAL PRODUCTION

4 hours credit

Practical experience in technical theatre including set construction, scene painting, lighting and sound. May not receive credit for both THEA 121 and 110. **Three hours lecture, two-hour laboratory per week. Meets General Education IIIA or IIIC.**

125. THEATRE PRACTICUM

1 hour credit

Provides supervised experience in theatre production and performance. May be repeated for a total of eight credit hours; only two hours may count toward the Design and Production or Performance tracks. **Prerequisite:** Permission of the instructor. (P/F)

126. COSTUMING AND THEATRE CRAFTS

4 hours credit

Provides an introduction to costumes for the stage through the application of design principles and costume construction techniques, including machine and hand sewing, flat patterning, and draping and fiber technology. Students furnish their own materials. **Three hours lecture, two hours studio per week. Meets General Education IIIA or IIIC.**

130. ELEMENTS OF VOICE AND DICTION

4 hours credit

Examines the fundamentals of voice production and articulation. Study establishes good habits of speech through analysis of voice, articulation and pronunciation, with directed

exercises for improvement. May not receive credit for both THEA 201 and 130. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

199. CORNERSTONE SEMINAR

1 hour credit

Early career forum examines theatre as an academic discipline and an art form. Professional practices and resources are introduced, allowing students to make the most of their academic career and preprofessional training. **Prerequisite:** Theatre major. **Two hours per week.**

200. VOICE AND MOVEMENT FUNDAMENTALS

4 hours credit

Develops voice and body awareness through methods of vocal production, theatre movement and body conditioning, and performance style and analysis. **Five studio hours per week. Meets General Education IIIA or IIIC.**

210. FUNDAMENTALS OF FILM, TELEVISION AND THEATRE DESIGN

4 hours credit

Study of the art and craft of scenography and production design through plays, film and dramatic literature. Focuses on character and script analysis, research and conceptualizing a visual world through research, writing, collage/assembly and basic model building. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

223. MAKEUP DESIGN

4 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. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

240. TEXT ANALYSIS

4 hours credit

Analysis and interpretation of dramatic/theatrical texts covering a variety of styles and genres. Traditional and contemporary approaches to analysis are examined. Structural issues, historical/cultural contexts and production applications are explored. **Three hours per week with enhancement.**

250. ACTING I

4 hours credit

Explores the creative acting process by investigating the emotional, intellectual and kinesthetic resources central to performing. Examines the application of vocal and physical choices to develop characters. Analysis of texts, theory and the conventions of psychological realism are highlighted through focused improvisation, movement exercises and monologue/scene study. **Performance Track Prerequisite:** THEA 200. **Five studio hours per week. Meets General Education IIIA or IIIC.**

258. STAGE MANAGEMENT

2 hours credit

Examines the technical and organizational aspects of stage management. Focuses on the skills, responsibilities and procedures of an effective stage manager. **Prerequisite:** Permission of instructor. **Three hours per week.**

290. SPECIAL TOPICS IN THEATRE

1-4 hours credit

Interdisciplinary seminar with content varying semester to semester. May be repeated under different titles for a maximum of 16 credits. **One-and-a-half to six hours per week.**

300. HISTORY OF THE THEATRE I

4 hours credit

Surveys the evolution of formal social theatre from ritual origins through the Renaissance. A social history of dramatic theory, plays and playwrights, production practices and per-

formance styles, emphasizing their roles as both product of and mirror to changing values, tastes, attitudes and customs. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

301. HISTORY OF THE THEATRE II

4 hours credit

Surveys Western theatre from the Elizabethan period to the present. Examines the influence of non-Western forms and developing aesthetics of Early Modern drama. Connects the diverse social, political and philosophical forces that shape the theatre as an expression of the modern world. **Three hours per week with enhancement. Meets General Education IIIA or IIIC.**

310. SCENE DESIGN

4 hours credit

Examines scene design through concept, metaphor, vision, creativity, color and design theories, and 20th-century history. Develops drafting, figure drawing, scene painting, model making and production team communication skills. **Design and Production Track Prerequisite:** THEA 110 or permission of instructor. **Six hours per week.**

311. SCENE PAINTING

4 hours credit

Focuses on the process, techniques, analysis and practice of scene painting and scenic art for the stage and other performance and display spaces. Examines interpretation and decision making in the collaborative process between the scenic artist and designers and craftsmen. **Six hours per week with enhancement.**

312. LIGHTING DESIGN

4 hours per week

Focuses on lighting as a vital component of technical production. Includes design and technology of theatre, television and video lighting. **Design and Production Track Prerequisite:** THEA 110 or permission of instructor. **Six hours per week.**

320. COSTUME DESIGN

4 hours credit

Examines the elements of design, character study, textual analysis and directional concepts as a basis for translating conceptualizations into costume renderings. Includes period research and contemporary designers in the world of fashion and theatre. **Design and Production Track Prerequisite:** THEA 126 or permission of instructor. **Six hours per week.**

327. READERS THEATRE

4 hours credit

Covers the philosophy and uses of Readers 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. **Performance Track Prerequisites:** THEA 240, 250. **Three hours per week with enhancement.**

344. DIRECTING

4 hours credit

Study of the theory and basic principles, skills and techniques underlying direction. Student-directed theatre production required. **Performance Track Prerequisites:** THEA 240, 250. **Five studio hours per week.**

350. ACTING II

4 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. **Performance Track Prerequisite:** THEA 250. **Five studio hours per week.**

399. INTERNATIONAL STUDY IN THEATRE

4 hours credit

Examines theatre through travel and study in international setting. Pre-tour lectures and other activities required. May be taken twice under different subtitles for a total of eight hours; only four hours may count toward upper-level degree requirement. **Four hours per week.**

420. EVOLUTION OF STYLE

4 hours credit

Surveys the visual world of influential cultures and societies through history. Applies styles and aesthetics to interpreting period theatre scripts. **Design and Production Track Prerequisite:** THEA 210. **Four hours.**

424. PLAYWRITING

4 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:** Junior standing or permission of instructor. **Three hours per week with enhancement.**

430. ACCENTS AND DIALECTS

4 hours credit

Study of voice production and articulation with emphasis on accents and regional dialects focuses on the skills of performance and voice in characterization. **Performance Track Prerequisite:** THEA 250. **Three hours per week with enhancement.**

435. ACTING FOR THE CAMERA

4 hours credit

Examines the formalistic elements of television and film through collaborative projects with students of directing. Emphasis is placed on detailed communication of character, intentions and conflict. May not take CMAT 435 and THEA 435 simultaneously. **Performance Track Prerequisite:** THEA 350. **Four hours per week.**

450. ACTING SHAKESPEARE

4 hours credit

Advanced scene study acting focusing on the challenges specific to blank verse. Guided exercises explore and refine technical skills. **Performance Track Prerequisites:** THEA 250, 301. **Three hours per week with enhancement.**

451. ACTING COMEDY

4 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. **Performance Track Prerequisites:** THEA 250, 300. **Three hours per week with enhancement.**

456. TECHNIQUES OF CHILDREN'S THEATRE

4 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 with enhancement. Meets General Education IIIA or IIIC.**

490. SEMINAR IN THEATRE

1-4 hours credit

Intensive study of a selected topic in theatre. May be taken twice under different subtitles for a maximum of eight credits. **Prerequisite:** Junior standing. **One-and-a-half to six hours per week.**

492. INDEPENDENT STUDY

4 hours credit

Directed study of a theatre or theatre-related topic. May be taken twice under different subtitles for a total of eight hours; only four hours may count toward upper-level degree

requirements. **Prerequisites:** Junior standing, 3.0 major GPA, proposal and permission of instructor and department chair during program planning. **Four hours per week.**

495. INTERNSHIP IN THEATRE

4 hours credit

Supervised experience applies acquired knowledge and skills in a professional theatre setting. May be taken twice under different subtitles for a total of eight hours; only four hours may count toward upper-level degree requirements. **Prerequisites:** Core completed; junior standing and 3.0 major GPA; proposal and permission of supervisor and department chair during program planning. **Three hours per week with enhancement.**

499. CAPSTONE SEMINAR

1 hour credit

Summarizes the University theatre experience through the active planning and execution of professional materials, including audition monologue and portfolio, leading to a senior showing with exit interview. **Prerequisites:** Senior standing, theatre majors only. **Two hours per week.**

408. SEMINAR IN URBAN THEORY

3 hours credit

An interdisciplinary course examining critical and descriptive theories to explain city development. Discussions of city evolutions, planning visions, and cultural, political, economic and global factors shaping cities. May not receive credit for both URPL 408 and GEOG 408. **Prerequisite:** GEOG 100 or 101 or 102 or 308 or URPL 308 or consent of instructor. **Three hours per week.**

416. SMART GROWTH

3 hours credit

Explanations of smart growth programs addressing urban challenges such as sprawl, lack of open space and central city decline. Introduction of early efforts to manage urban growth and growth management programs at the state and local levels. May not receive credit for both URPL 416 and GEOG 416. **Prerequisite:** URPL 308 or GEOG 308 or permission of instructor. **Three hours per week.**

URBAN AND REGIONAL PLANNING (URPL)

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 URPL 308 and GEOG 308. **Prerequisite:** Sophomore standing. **Three hours per week.**

328. APPLIED PLANNING

3 hours credit

Application of planning principles and theories to real world land-use issues. Particular attention is paid to the subdivision plat review process, zoning ordinances, and the role of citizens and local government in planning. Several actual planning case studies are examined. May not receive credit for both URPL 328 and GEOG 328. **Prerequisite:** URPL 308 or GEOG 308. **Three hours per week.**

363. CITIES OF THE MIDDLE EAST

3 hours credit

Discussion of cities of the Middle East through explaining city evolutions, contemporary structures and models. Explanations of how urban planning addresses city problems and responds to current challenges. May not receive credit for both URPL 363 and GEOG 363. **Prerequisite:** GEOG 100, 101, 102 or consent of instructor. **Three hours per week.**

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. May not receive credit for both URPL 402 and GEOG 402. **Prerequisite:** URPL 308 or GEOG 308 or BIOL 310. **Three hours per week.**