Course Descriptions

All course descriptions carry behind the name and number a parenthesis ( ) indicating the credit hours, lecture hours, and the lab hours per week. For example: NSCI 110 (4-3-2). The first number in the parenthesis indicates the credit value of the course (4); the second number indicates the number of lecture hours (3) per week; and the third number indicates the number of lab hours per week (2).

Accounting (ACCT)

ACCT 211 (3-3-0) Principles of Accounting I
An introduction to financial accounting. A study of the basic concepts of accounting, the accounting cycle and preparation of financial statements, and analyzing and recording transactions for operating, investing and financing activities. Prerequisite: MATH 121 or 123.

ACCT 212 (3-3-0) Principles of Accounting II
An introduction to managerial accounting. A study of the uses of financial statements; the study of manufacturing operations and the uses of accounting information by management. Prerequisite: ACCT 211.

ACCT 310 (3-3-0) Managerial Accounting
A continuation of ACCT 212. A study of cost terms, cost behavior, systems design, and the analysis, interpretation, and use of accounting data by management for planning and controlling business operations and for decision-making purposes. Prerequisites: ACCT 211 and ACCT 212. This course is not open to accounting majors.

ACCT 311 (3-3-0) Intermediate Accounting I
This course provides an in-depth examination of the underlying theory and objectives of financial accounting. It focuses on the conceptual framework underlying financial reporting, and the preparation, presentation, interpretation, and the use of financial statements as well as issues related to accounting for operating activities. Prerequisites: ACCT 211 and ACCT 212 with a minimum of "B" average.

ACCT 312 (3-3-0) Intermediate Accounting II
A continuation of Intermediate Accounting I; An in-depth study of accounting for investing and financing activities, leases, income taxes, and pensions. Prerequisite: ACCT 311 with grade of "C" or better.

ACCT 320 (3-3-0) Federal and State Income Taxes
A survey of basic tax laws and determination of taxable income with special attention to individuals; introduction to tax research. Prerequisite: ACCT 211 and ACCT 212 with a minimum of "B" average.

ACCT 321 (3-3-0) Cost Accounting
A study of the various cost concepts: accumulation of product costs, joint costs in job order and process cost systems, including analyses of variances for managerial control and decision making, direct and variable costing, cost-volume-profit analysis; the buy or make decision. Prerequisite ACCT 211 and ACCT 212 with a minimum of "B" average.

ACCT 322 (3-3-0) Advanced Cost Accounting
A continuation of ACCT 321: budgets and analyses of costs and other variances for management action; capital budgeting, and operations management and yield variances. Prerequisite ACCT 321.

ACCT 411 (3-3-0) Advanced Accounting
Accounting and reporting for investment activities of business. Issues related to foreign currency, accounting diversity, disaggregated information, reorganizations, and liquidations. Prerequisite: ACCT 312 with a grade of "C" or better.

ACCT 412 (3-3-0) Governmental and Public Accounting
A study of accounting for not-for-profit entities, such as local, state, and federal units of government, and educational institutions, hospitals, health care, and welfare organizations; the classification and use of funds in such entities, including budgeting, purchasing and financial activities, presentation of financial reports by these types of organizations. Prerequisite ACCT 312 with a grade of "C" or better.

ACCT 420 (3-3-0) Advanced Federal Income Taxes
A continuation of ACCT 320: tax laws applicable to corporations, partnerships, trusts, estates, gift tax, and tax planning; substantive research work resulting in formal reports. Prerequisite ACCT 320 with a grade of "C" or better.

ACCT 421 (3-3-0) Accounting Information Systems
This course provides basic knowledge of how accounting information systems function in business organization. Transaction flowcharting and internal controls of the revenue, expenditure and conversion cycles are covered in detail. Attention is also focused on basic computer terminology, EDP controls, and relational databases. Prerequisite: ACCT 312 with grade of "C" or better.

ACCT 422 (3-3-0) Auditing
This course covers the conceptual and practical aspects of the examination of financial statements by independent accountants. Issues examined include: objectives and techniques of internal control; standards of presentation and disclosure in financial statements; objectives and procedures for auditing practice; statistical sampling techniques; and auditing of EDP records. Prerequisite: ACCT 312 with grade of "C" or better.

ACCT 430 (3-3-0) Accounting Theory
A study of contemporary financial accounting issues, emphasizing the role of accounting theory in accounting policy decisions, the social, political, and economic influences on accounting standard setting, and the history of the accounting profession and accounting thought. Prerequisite: ACCT 312 with a grade of "C" or better.
ACCT 450 (3-3-0) Accounting Internship
This course provides students with practical experience in the field of accounting in the private and public organizations including industry. Formal class meetings before and after internships are required to evaluate the work experience of students. Program must be arranged in advance and approved by the department chairperson. Course is not open to students with credit from any similar program in the institution. Prerequisite: Consent of instructor and senior standing.

Administrative Services (ADMS)

ADMS 320 (3-1-2) Desktop Publishing
This course is designed to provide for the development of basic desktop publishing concepts and skills which include the essentials of production and design, type and layout, and graphics and text for business and technical applications. Prerequisite: BEDU 110 or the equivalent (knowledge of word processing and basic keyboarding skills).

Anthropology (ANTH)

ANTH 210 (3-3-0) Introduction to Anthropology
An introduction to the history and methods of anthropology, with special emphasis on early hominid and cultural evolution, the comparative study of social institutions, and the nature of cultural differences as they exist in traditional and modern societies.

Aerospace Studies (ARSS)

ARSS 111 (1-1-2) Foundations of the USAF I
ARSS 111 is a survey course designed to introduce cadets to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

ARSS 112 (1-1-2) Foundations of the USAF II
ARSS 112 is a continuation of ARSS 111.

ARSS 211 (1-1-2) The Evolution of Air & Space Power
ARSS 211 is designed to examine the general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the cadets with a knowledge level understanding for the general element and employment of air and space power, from an institutional doctrinal and historical perspective. In addition, the students will continue to discuss the importance of the Air Force Core Values, through the use of operational examples and historical Air Force leaders, and will continue to develop their communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

NOTE: ARSS 111 and 112 are not prerequisites to taking ARSS 211 and 212. Any of the four may be taken to best accommodate a student’s schedule.

ARSS 212 (1-1-2) The Evolution of Air & Space Power II
ARSS 212 is a continuation of ARSS 211.

ARSS 311 (3-3-2) Air Force Leadership Studies I
ARSS 311 guides the student through a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply the leadership and management principles of this course.

ARSS 312 (3-3-2) Air Force Leadership Studies II
ARSS 312 is a continuation of ARSS 311.

ARSS 411 (3-3-2) National Security Affairs & Preparation for Active Duty I
ARSS 411 examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as an element of national security. Cadets are exposed to the military profession, officership, military justice, civilian control of the military, prepares cadets for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.

ARSS 412 (3-3-2) National Security Affairs & Preparation for Active Duty II
ARSS 412 is a continuation of ARSS 411.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110 (3-0-6)</td>
<td>2D Design</td>
<td>An introductory course in two-dimensional design. It provides a basic understanding of elements and principles of design as they relate to drawing, painting, and the graphics arts.</td>
</tr>
<tr>
<td>ART 112 (3-0-6)</td>
<td>Calligraphy and Typography</td>
<td>A course emphasizing the fundamentals of lettering and poster designing, including displays such as bulletin boards, charts, and advertising lay-outs.</td>
</tr>
<tr>
<td>ART 121 (3-0-6)</td>
<td>Basic Drawing</td>
<td>The study of basic principles of freehand drawing emphasizing the elements and principles of art through self expression utilizing a variety of drawing media.</td>
</tr>
<tr>
<td>ART 140 (3-0-6)</td>
<td>3D Design</td>
<td>An introductory course in three-dimensional design, development of spatial seeing, and fundamental spatial design principles are emphasized.</td>
</tr>
<tr>
<td>ART 210 (3-3-0)</td>
<td>Survey of Art</td>
<td>A general study of the visual arts and their use in business and industry, education, leisure activities, and culture.</td>
</tr>
<tr>
<td>ART 211 (3-3-0)</td>
<td>Introduction to Art History</td>
<td>A study of the history of architecture, sculpture, painting, and the minor arts, with an historical summary of art form developments in various cultures.</td>
</tr>
<tr>
<td>ART 212 (3-0-6)</td>
<td>Introduction to Painting</td>
<td>The study of theories, methods, and painting techniques for landscapes, still-life and varied compositions with special emphasis on the elements and principles of art in painting. Prerequisite: ART 121.</td>
</tr>
<tr>
<td>ART 221 (3-3-0)</td>
<td>Advanced Drawing</td>
<td>The study of compositional development through experimental drawing emphasizing the technical expansion of drawing techniques with varied drawing media and subjects. Prerequisite: ART 121.</td>
</tr>
<tr>
<td>ART 222 (3-0-6)</td>
<td>Advanced Drawing</td>
<td>An in-depth investigation of the figure as a means of exploring drawing as depiction, organizational device, metaphor and object. Students will explore various dry and mixed media such as pastel, color pencil, collage techniques. This course is designed for the advanced art major that seeks to master observation, interpretation, and foundation skills in figure drawing. Prerequisites: ART 121, 222.</td>
</tr>
<tr>
<td>ART 223 Figure Drawing I</td>
<td></td>
<td>The study and use of ceramic processes and techniques: hand forming, molding, introduction to wheel throwing, glaze utilization, kiln operation.</td>
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<tr>
<td>ART 310 (3-1-5)</td>
<td>Creative Art Experiences for Young Children</td>
<td>A study of the planning and organization of creative art activities for children from kindergarten through the third grade.</td>
</tr>
<tr>
<td>ART 311 (3-0-6)</td>
<td>Arts and Crafts</td>
<td>An introduction to simple sculptured forms, construction, printing, carving, weaving, modeling, and lettering, and to the handling of such materials as wood, metal, clay, fabrics, and paper.</td>
</tr>
<tr>
<td>ART 312 (3-0-6)</td>
<td>Drawing and Painting</td>
<td>An introduction to the fundamentals of landscape, still life, and portrait drawing and painting, with special emphasis on line, form, texture, and color in objective and non-objective art. Prerequisite: ART 212.</td>
</tr>
<tr>
<td>ART 313 Figure Drawing II</td>
<td></td>
<td>This course builds on the Figure Drawing I experience and is focused on the figure as a central motif in the manipulation of space and pictorial investigation. Students will explore various wet pigment and dry media such as ink, watercolor, acrylic and oil pigments. This course is designed for the advanced art major concentrating on mastering interpretation and technical skills concerns of figurative representation. Prerequisites: ART 121, 212, 223</td>
</tr>
<tr>
<td>ART 321 (3-3-0)</td>
<td>Ancient to Medieval Art</td>
<td>A course that delves in depth the visual art work that emanated from ancient to medieval times. The course provides an in depth study of the architecture, sculpture and painting, background history, traditions and cultural attributes of art forms. Museum and gallery visits, photographic slide presentations, and lectures will be integral elements in the course.</td>
</tr>
<tr>
<td>ART 322 (3-3-0)</td>
<td>Renaissance to Modern Art</td>
<td>A course that delves in depth the visual art work that emanated from Renaissance to Modern times. The course provides an in depth study of the architecture, sculpture and painting, background history, traditions and cultural attributes of art forms. Museum and gallery visits, photographic slide presentations, and lectures will be integral elements in the course.</td>
</tr>
<tr>
<td>ART 330 (3-0-6)</td>
<td>Computer Imaging in Visual Arts</td>
<td>This course investigates the concept and techniques of applying computer imaging to fine art. Macintosh and IBM computers will be used to generate desktop publishing from creative graphics. Focus will be given to the industries' leading graphic software. Prerequisites: ART 110 and ART 121.</td>
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<tr>
<td>ART 331 (3-0-6)</td>
<td>Color Theory and Techniques</td>
<td>The study of color theories, color harmonies, and the orchestration of colors in design composition and nature to express symbolic, psychological, and aesthetic ideas. Prerequisite: ART 110.</td>
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ART 340 (3-3-0) Woman, Culture, and Imaging
This course focuses on how Western aesthetics and cultural ideology have shaped women’s relationships to the visual arts from the medieval period to the present.

ART 341 (3-0-5) Leathcraft
A course in the design and production of craft projects fashioned in leather or with leather decoration.

ART 342 (3-0-5) Sculpture
The study and production of sculpture, applying techniques to such materials as wood, clay, plexiglass, concrete, and plaster. Prerequisites: ART 110 and ART 121.

ART 351 (3-0-6) Introduction to Graphics
A printmaking course that explores the art of the print by using techniques in serigraphy, relief, and intaglio, with emphasis on design and creative expression. Prerequisites: ART 110 and ART 121.

ART 352 (3-0-6) Commercial Art
A course of working theories and practical applications of design-making for selling a product or commodity, with skills to be learned including fashion design, cartooning, illustrating, lettering, package design, photographic, and airbrush techniques. Prerequisites: ART 110, ART 121, and ART 330.

ART 353 Introduction to Printmaking
A course exploring the art of the print by applying fundamental techniques in serigraphy, woodcut, intaglio with an emphasis on expanding options for creative expression.

ART 354 Advance Printmaking
This course moves the student into technical areas of printing to include the following: photo-silk screening, creative techniques in screening and other advanced techniques. Prerequisites: ART 110, 121, 353.

ART 361 (3-3-0) African Negro Art
An introduction to the regional art of Africa, with attention given to historical, sociological, and theological backgrounds.

ART 362 (3-3-0) African-American Art from 1800
A survey of the works of art by African-American artists, including an investigation of the historical and environmental influences on subject matter choices of artists in contemporary black art.

ART 371 (3-0-6) Clay Modeling I
A course in clay modeling where the student works from the figure to understand systems of sculpting from life. Prerequisite: ART 121.

ART 372 (3-0-6) Clay Modeling II
A course that instructs the student in the process of mold-making and the preparation for casting in metal, plaster, hydrocal or concrete Prerequisite: ART 121.

ART 391 (3-3-0) Computer Graphics in Fine Arts
This course explores the development of computers as a tool to produce art. This class will allow students to experience the creation of their own art using computers, and to understand the concepts and rules of fine art production as they relate to this medium. Prerequisite: ART 330.

ART 400 (1-0-1) Art Thesis
A course that involves individual projects relating to an investigation of survival strategies, materials and techniques, theory of art, methods of criticism, exhibition and presentation in the selected area for specialized studies in painting, ceramics, sculpture, graphics, and art history.

ART 410 (3-3-0) Art Criticism
A course aimed at the evaluation of art concepts, the philosophy of aesthetics, and an analytical approach to discussing art forms. Prerequisites: ART 321 and ART 322.

ART 411 (3-2-1) Art in Childhood Education
An investigation into the problems in children’s art, the nature of art for children, art for creative expression, and the correlation of art with other subjects, with practical experience in the making and the teaching of simple art projects and activities appropriate to elementary school children.

ART 412 (3-0-6) Advanced Painting
The study of painting techniques and composition, emphasizing a variety of painting media and the treatments of surface and subject matter to the development of styles. Prerequisite: ART 121 and ART 212.

ART 413 Directed Study in Advanced Painting III
A directed study course for students seeking contemporary water media painting problems. Emphasis is study of design principles, color structure, and fundamental methods of pictorial organization.

ART 414 Directed Study In Advanced Painting IV
A directed study course for students seeking a comprehensive analysis of painting media, experimentation of painting styles and self-expression. Prerequisite: ART 121, 212, 331, 412.

ART 422 (3-2-1) Art in the Intermediate Grades (4-9)
A developmental study of creative expression facilitated through art in the intermediate grades, with students required to participate in activities involving a variety of art media such as drawing, painting, graphics, ceramics, etc., to develop a background for teaching art and to refine personal skills for artistic expression. Prerequisite: ART 311.

ART 430 (3-0-6) Ceramics II
Further study and use of ceramic processes and techniques: hand forming, molding and wheel throwing, glaze utilization, and kiln operation. Prerequisite: ART 230 or consent of instructor.
ART 431 (3-0-6) Ceramics III
A practical course focusing on advanced techniques in wheel throwing, clay formulation, glaze mixing, and glaze application, with students learning "how to," and gathering experience in loading and firing gas and electric kilns. Variable credit may be earned in this course. Prerequisite: ART 430.

ART 432 (3-0-6) Advanced Graphics
A course that moves the student into technical areas of printmaking to include the following: photo-silk screening, creative techniques in screening, and other advanced techniques. Prerequisite: ART 431.

ART 433 Directed Study in Advanced Printmaking III
This course is a directed study for students seeking extensive experimentation in printmaking techniques particular to traditional and contemporary printmaking processes. Prerequisites: ART 353, ART 354

ART 434 Directed Study in Advanced Printmaking IV
A direct study for students seeking to apply their knowledge of advanced printmaking techniques with an emphasis on development of personal style. Prerequisites: ART 354, ART 433

ART 440 (3-2-4) Basic Photography
A course including activities such as camera operation, picture taking, darkroom techniques and procedures, and photo printing. (Students must have access to a camera.)

ART 441 (3-0-6) Weaving
A study of cloth making, with emphasis on design and on the use of hand, floor, and table looms.

ART 442 (3-3-0) Contemporary Art
A study of modern art to the present through an analysis of works of art in their historical context.

ART 450 (3-0-6) Studio Problems
A course designed for independent work in the student’s area of concentration. Advanced studio problems will be investigated. Variable credit may be earned.

ART 452 (3-0-6) Ceramics IV
A studio course in advanced ceramics emphasizing formulations of clay bodies and glazes. Advanced wheel throwing, sculpturing, and combing materials. Instruction in kiln repair will be covered. Prerequisite: ART 431.

ART 461 (3-0-6) Advanced Photography
A course providing additional and advanced experiences in photographic production through the mastery of photo materials and equipment, with emphasis on visual literacy and aesthetic manipulation of compositional elements and on successful photographic production. Prerequisite: ART 440.

ART 462 (3-3-0) American Art
A course that covers the history of painting, graphics, sculpture, and architecture in American history.

ART 471 (3-0-6) Wood Working
A course that emphasizes the fabrication and carving the medium of wood. Prerequisite: ART 140.

ART 472 (3-0-6) Metals
A course that emphasizes metal fabrication using torches and connectors and the process of casting in metals. Prerequisite: ART 140.

ART 481 (3-3-0) Computer Design for Multimedia
This course introduces students to interactive art, a form that allows the viewer or user to interact with visual communication. Students will be challenged to produce interactive art through the use of two types of software: PowerPoint and MacroMedia. Prerequisites: ART 330 and ART 352.

Astronomy (ASTR)

ASTR 111 (4-3-2) Astronomy I
An introductory course in the science of astronomy, with emphasis on the investigation of nearby space — the sun, moon, and planets — and with laboratory exercises illustrating the scientific methods and techniques used in gathering information about the planets, moons, and other objects in the Solar System.

ASTR 112 (4-3-2) Astronomy II
An introductory course in the science of astronomy, with emphasis on the investigation of distant space — the physical nature of stars, galaxies, black holes, and quasars and on techniques used to gather information about these objects, with laboratory activities illustrating data gathering and interpretation techniques related to stars and galaxies. Students may enroll in ASTR 112 before completing ASTR 111.

Business Administration (BADM)

BADM 209 (3-3-0) Legal Environment of Business
An overview of law and the legal environment of business, emphasizing those parts of law necessary to understand and appreciate the regulatory role of government and including such topics as constitutional law, contracts, torts, business ethics, business organizations, and government regulations.

BADM 214 (3-1-2) Microcomputer Applications in Business
This course is designed to develop an understanding of the computer as a business and personal tool. Students will get a working knowledge of a variety of software programs such as spreadsheets, word processing, data bases, and presentations. Projects that simulate business applications are provided.
BADM 215 (3-3-0) Business Communications
A course that presents a scientific approach to the analysis and resolution of business problems through business letters, memoranda, and researched analytical reports. Other topics of study include nonverbal communication, business ethics, office automation, employment procedures, international business, and oral and listening skills. Prerequisites: ENGL 120 (or equivalent) SPEE 200.

BADM 216 (4-4-0) Statistics for Business and Economics I
This course introduces statistical principles for business and economics applications. Regression is presented to convey statistical thinking, modeling and analysis. Prerequisite: MATH 140.

BADM 312 (3-3-0) Statistics for Business and Economics II
A study of multiple regression methods, analysis of variance, chi-square tests, elements of sampling, quality control, and index numbers, with training in statistical analysis with computer-based implementation. Prerequisite: BADM 216.

BADM 352 (3-3-0) Blacks in Contemporary Capitalistic Society
A study of blacks' contemporary problems in American capitalism, emphasizing innovative techniques and procedures for greater unfolding of their objectives and focusing on such topics as finance, business ownership, internal operations, salesmanship, banking, and managerial techniques.

BADM 412 (3-3-0) Business Law
A study of the basic concepts of law applicable to the business profession and business endeavors, covering such topics as contracts, torts, commercial paper, agency, property, business organizations and constitutional protection. Prerequisite: BADM 209.

BADM 430 (3-1-15) Business Internship
A course providing students with practical experience in approved business positions, including a seminar for formal evaluation of their work experience. (Program must be arranged in advance and approved by the department chairperson; course is not open to students with credit from any similar program in the institution.) Prerequisite: Consent of instructor and senior standing.

BADM 490 (3-3-0) Seminar in Business Administration
A course involving various subject matters as deemed by the business faculty to be appropriate to the needs of the student in meeting the objectives of the business degree program. Prerequisite: Senior standing.

Business Education (BEDU)

BEDU 110 (2 or 3-1-2) Basic Word Processing
A course to develop manipulative mastery of the keyboard and basic skills in using the computer for word processing, with special emphasis on sequencing activities and procedures for keyboarding mastery. This course has variable credit. Credit hours for BEDU 110 are three for Office Administration majors and students in other disciplines who take the course to satisfy the CSC requirement. The credit hours are two for Business Education majors.

BEDU 115 (2-1-2) Intermediate Word Processing
A course building on the concepts and skills developed in BEDU 110, including the knowledge base required for the practical use of a microcomputer for professional and personal use, with applications such as the production of business correspondence, forms, manuscripts, reports, and tables. Prerequisite: BEDU 110 or placement test.

BEDU 210 (3-3-0) Introduction to Business
A course providing an overall picture of business operations and the role of business in the free enterprise system, including the knowledge base for management and organization, the human resource, marketing and consumer-buying behavior, finance and investment, the business environment, the American legal system, and career opportunities in business.

BEDU 250 (3-0-3) Word/Information Processing
A course providing for the development of production competencies in word/information processing and a high level of decision-making skills in the operation of microcomputers with emphasis on the development of advanced-level capabilities on the microcomputer. Prerequisite: BEDU 115 or a comprehensive test and keying ability of 50 wpm on five-minute writings.

BEDU 315 (3-3-0) Mathematics for Business
A study of business problems related to mathematics, with attention to topics such as compound interest, annuities, discounting notes, inventory, depreciation, payrolls, stocks and bonds, ratio analysis, and graphs. Prerequisite: Math 123.

BEDU 321 (3-2-3) Elementary Shorthand
A study of the basic principles of Gregg Shorthand, Centennial Series, with emphasis on the development of the ability to apply these principles to the reading and writing of shorthand.

BEDU 322 (3-2-3) Intermediate Shorthand
A continuation of BEDU 321, with attention given to gaining proficiency with basic elements of transcription using microcomputers, to constructing outlines for unfamiliar words, and to building higher dictation speeds. Prerequisites: BEDU 321 or placement test and BEDU 250.
BEDU 411 (3-3-0) Administrative Secretarial Procedures

An expansion of the secretarial knowledge base through presentations of practical problems encountered by the secretarial worker, with emphasis on developing competency in office skills and procedures, including computer applications, reprographics, filing, dictation and transcription, communication techniques, and administrative support services.

BEDU 450 (3-3-0) Administration and Supervision of Vocational Education

A course addressing present and future problems relating to administering and supervising vocational education programs at the secondary and post-secondary school levels, with the knowledge base emphasizing leadership roles at the local, state, and national levels; advisory committees; vocational student organizations; planning; budgeting; public relations; and evaluation of students and programs. Prerequisite: Senior standing.

BEDU 460 (3-3-0) Coordination Techniques in Vocational Education

A course designed to provide students with an in-depth exploration of the total role of the teacher-coordinator of a vocational program using the cooperative method of instruction, with special attention given to the planning and management procedures needed to integrate effectively classroom instruction with on-the-job learning needs.

BEDU 490 (3-3-0) Seminar in Business Education

A seminar providing analyses of problem areas (local, state, and national) of major concern in business education. Prerequisite: Senior standing.

BEDU 492 (1-3,0,15) Directed Work Experience

A supervised work experience for office administration majors, and for business education and marketing education majors seeking vocational teacher certification. Students work in a business setting to gain first-hand work experience. Individually designed for part-time and/or summer experience. One to three hours credit. Prerequisite: Instructor's approval.

Biochemistry (BICH)

BICH 411 (3-3-0) Biochemistry I

An introductory course that provides the theoretical basis for the major principles in biochemistry. The course includes an historical perspective of biochemistry, and a study of the four major biological macromolecules: proteins, lipids, carbohydrates, and nucleic acids. Three major areas of biochemistry will be emphasized: (1) acid/base equilibria; (2) structure and function of biomolecules; and (3) biological information flow. In addition to lectures and discussions, problem sets will be assigned to equip students with an understanding of basic biochemical principles and to promote critical thinking and problem solving skills. Prerequisites: BIOL 200 and CHEM 220 or CHEM 221.

BICH 412 (3-3-0) Biochemistry II

A study of bioenergetics, biosynthesis of major biological macromolecules, and metabolic pathways in animals, plants, and microorganisms. Emphasis will also be placed on methods of purification and analysis of biological macromolecules and applications of basic biochemical principles to living systems. In addition to lectures and discussions, problem sets will be assigned to equip students with an understanding of basic biochemical principles and to promote critical thinking and problem solving skills. The course content will be correlated with the laboratory exercises in the corequisite Biochemistry Laboratory (BICH 421). Prerequisite: BICH 411.

BICH 421 (1-0-2) Biochemistry Laboratory

The application of biochemical principles and techniques to the separation, purification, and analysis of biological substances, and to the investigation of metabolic activity. Prerequisite: BICH 411; Co-requisite: BICH 412.

Biological Sciences (BIOL)

BIOL 110 (4-3-2) General Biology I

An introductory study of concepts relating to the origin of organisms: cell history, reproduction, structure and function; atomic and molecular structure of the cell; energy relations; structure, composition and systematics of major organic compounds; sexual and asexual reproduction; and genetics and evolution. Includes two (2) hours of lab consisting of qualitative experiments illustrating biological principles and basic laboratory techniques.

BIOL 130 (4-3-2) General Biology II

A study of ecology and of systems regulating and supporting the metabolism of organisms. Includes two (2) hours of lab consisting of qualitative experiments in ecology, classification, and the physiology of organisms. Prerequisite: BIOL 110.

BIOL 150 (4-3-2) Principles of Biology

A study of the major principles relating to the nature of organisms, with emphasis on molecular, cellular, organismic, developmental, and evolutionary concepts, and with two (2) hours of lab consisting of experiments on the analysis of the chemistry of cellular and related materials. Prerequisite: Minimum score of 25 on the natural science profile examination. Prerequisite or Corequisite: Math 123 or higher level math courses.

BIOL 200 (4-3-2) Cellular Biology

An examination of cell structure in relation to function, including studies of biochemistry, cytogenetics, physiology, reproduction, and the evolution of animal, plant, and bacterial cells. Prerequisite: Biology 150; Co-requisite: Chemistry 140.

BIOL 320 (1-0-2) Biology Seminar

A course including discussions of modern biological concepts and current topics, with presentations of papers by students on special issues in biology. Prerequisite: Junior Classification.
BIO 330 (3-2-2) Microbiology and Immunology
An introduction to the structure, physiology, ecology and immunological host relationships of procaryotes and other microorganisms, with two (2) hours of lab consisting of applications of microbiological and immunological techniques. Prerequisites: BIOL 200 and one (1) year of Chemistry.

BIO 350 (3-2-2) Ecology/Evolution
A study of mechanisms governing the process of organic evolution, evolutionary relationships among living and extinct organisms, and the interactions between organisms and their environment, with two (2) hours of lab consisting of an observational/experimental study of the concepts of evolution and ecology. Prerequisite: BIOL 200.

BIO 430 (3-3-0) Special Problems
A course involving guided scientific research, field studies, or other special projects. Prerequisite: Consent of the instructor.

BIO 490 (4-3-2) Radiation Biology
An introductory course for science majors on the nature and use of radioisotopes, with two (2) hours of lab consisting of basic experiments with radioisotopes using the latest instrumentation. Prerequisites: BIOL 150, MATH 241, CHEM 210, and one (1) year of physics.

Biotechnology (BTCH)

BTCH 350 (3-3-0) Advances in Biomolecular Science (BIOL 430)
A seminar course which discusses pioneering and cutting edge research in molecular biology, cell biology, and developmental biology. Students will also be introduced to basic tools of biomolecular science. Prerequisites: None. BIOL 200 and CHEM 140 strongly recommended.

BTCH 420(3-0-3) Biotechniques I (BIOL 430)
A laboratory course in basic biotechnology theory, skills, and applications. Includes spectrophotometry, gel filtration chromatography, gel electrophoreses, DNA isolation, Restriction enzyme digestion, genetic engineering, DNA fingerprinting, Southern and Western blot analysis. Prerequisites: BIOL 200, Chem 160, or permission of instructor.

BTCH 430 (3-3-0) Biotechniques II (BIOL 430)
A laboratory course teaching biotechnology theory, skills, and applications. Includes DNA sequencing, PCR, immunology, cell culture, separation technology, principles of fermentation technology, basic aptitudes for the biotechnology industry. Prerequisite BTCH 420.

BTCH 440 (3-0-3) Tissue Culture and Hybridoma Technology (BIOL 430)
A laboratory course which teaches techniques for the establishment, assay, and maintenance of a variety of types of cells, tissue and hybridoma cultures. Prerequisites: BIOL 200, BTCH 430, or consent of instructor.

Botany (BOTN)

BOTN 210 (3-2-2) General Botany
An introduction to the morphology, anatomy, physiology, reproduction, taxonomy, and ecology of higher plants, fungi, and algae, with two (2) hours of lab consisting of observation and interpretation of the morphology and structure relating to the function, identification, and adaptation of higher plants, fungi, and algae. Prerequisite BIOL 200.

Chemistry (CHEM)

CHEM 101 (4-3-2) Introduction to Chemical Principles
An introduction to the atom and bonding, the three states of matter, and stoichiometry (for students desiring one year of training in chemistry), with laboratory activities investigating mole-mass relationships, gas laws, and measurement of thermochemical phenomena. Prerequisite MATH 123 or MATH 129.

CHEM 102 (4-3-2) Introduction to Organic and Biochemistry
An introduction to organic and biochemistry applications of chemical principles (for students desiring one year of training in chemistry), with laboratory activities investigating the techniques of organic and biochemistry. Prerequisite CHEM 101.

CHEM 120 (3-3-0) The Atom and Bonding
A non-mathematical study of atomic structure, elementary nuclear theory, the periodic table, bonding, valence, hybridization, and molecular and crystal structure. Prerequisite CHEM 120 and MATH 123.

CHEM 130 (4-3-3) Stoichiometry
The study of stoichiometry, gas laws, thermochemistry, and the balancing of chemical equations, with laboratory activities investigating mole-mass relationships, gas laws, and measurement of thermochemical phenomena. Prerequisites: CHEM 120 and MATH 123.

CHEM 140 (4-3-3) General Chemistry I
A study of atomic theory, bonding, molecular structure and geometry, stoichiometry, thermochemistry and the three states of matter, with laboratory activities investigating mole-mass relationships, gas laws, and measurement of thermochemical phenomena. Prerequisites: MATH 123 or 129.

CHEM 160 (4-3-3) General Chemistry II
A course investigating kinetics, acid-base equilibria reduction and oxidation, and qualitative and quantitative analyses, with laboratory activities examining reaction rates, acid-base and reduction-oxidation titrations, and qualitative and elementary quantitative analyses. Prerequisites: CHEM 140 with a grade of C or higher in the course. Prerequisite or Corequisite: MATH 124 or MATH 130.
CHEM 210 (5-3-6) Analytical Chemistry
A course investigating traditional methods of wet-analytical chemistry, consisting of gravimetric, volumetric, and chromatographic analyses, pH, pK, and the application of the Nernst equation. Prerequisites: CHEM 160, with a grade of C or higher in the course.

CHEM 220 (4-3-3) Principles of Organic Chemistry
A one-semester course in which the chemistry of the hydrocarbons (including aromatics) and monofunctional alkyl halides, alcohols, ethers, aldehydes, ketones, carboxylic acids (and their derivatives), and amines is surveyed. The course will conclude with an introduction to the chemistry of multifunctional biomolecules. The laboratory will consist of the techniques used in the purification, isolation, and identification by physical properties of organic compounds and conclude with the utilization of these techniques in the preparation of organic compounds. Prerequisites: CHEM 140 and CHEM 160.

Note: With the exception of CHEM 310, this course does not serve as prerequisite for any course in pure chemistry.

CHEM 221 (4-3-3) Organic Chemistry I
A study of the nomenclature, synthesis, reactions and reaction mechanisms, and spectroscopy of hydrocarbons alkyl halides and alcohols, with laboratory exercises introducing techniques of isolation, purification, characterization, and synthetic methods in organic chemistry. Prerequisites: CHEM 160 or permission of the instructor and department chair.

CHEM 222 (5-4-3) Organic Chemistry II
A course investigating the nomenclature, synthesis, reactions and reaction mechanisms, and methods for analysis of functionally substituted organic compounds, with laboratory activities extending the topics started in CHEM 221 and emphasizing syntheses and technical writing. Prerequisites: CHEM 221 with a grade of C or higher in the course.

CHEM 310 (4-2-4) Instrumental Methods of Analysis
The application of electrochemical, spectroscopic, and chromatographic methods to qualitative and quantitative analysis. Prerequisites: CHEM 210 with a grade of C or higher.

CHEM 321 (3-3-0) Thermodynamics and Equilibrium
A calculus-based study of the three laws of thermodynamics with derivation of equilibrium constants from chemical potential, Raoult’s Law, the phase rule, and equilibrium electrochemistry including the Debye-Hückle theory. Prerequisites: CHEM 210, MATH 241, MATH 242, and PHYS 111 or PHYS 121.

CHEM 322 (3-3-0) Quantum Mechanics and Spectroscopy
A course investigating the wave-particle dilemma as resolved by the Bohr atom, Dirac wave mechanics, and Eigen values of the Schroedinger equation, with applications to atomic and molecular vibrational, rotational, and electronic spectra. Prerequisites: CHEM 210, MATH 241, MATH 242, PHYS 112 or PHYS 122.

CHEM 324 (3-3-0) Kinetics
A study of change, including the transport properties of gases and liquids and electrical conduction. Starting with the kinetic theory of gases, the absolute rate theory and the collision theory are derived. Other topics include rates; mechanisms including complex mechanisms (consecutive, chain, branching, autocatalytic, and polymerizing); and the half-life of chemical reactions. Students will also be exposed to the steady-state approximation, and the study of the Arrhenius theory for calculation of activation parameters. Prerequisites: CHEM 210, MATH 241, MATH 242, PHYS 112 or PHYS 122.

CHEM 325 (3-1-5) Physical Chemistry Laboratory
Laboratory investigations involving the determination of enthalpies, equilibrium constants, molecular mass, electromotive force, entropy, reaction rates and activation parameters, solution phenomena, conductance, and the gathering and quantitative interpretation of spectra. Prerequisite: Any one of the following: CHEM 321, CHEM 322, or CHEM 324.

CHEM 330 (3-3-0) Principles of Inorganic Chemistry
A focus on trends of inorganic reactions, structure, and properties of the elements and their compounds in relation to their position in the periodic table. Students will be able to rationalize and interpret most inorganic properties using qualitative models that are based on quantum mechanics, such as the properties of atomic orbitals and their use to form molecular orbitals. Modern organometallic compounds will be introduced, and the environmental impact of inorganic chemistry will be discussed. This course will consist of lecture and discussion sessions.

CHEM 390 (10-3) Research I
A detailed examination of topics and studies in chemistry in preparation for beginning a formal research project to be conducted in CHEM 491 and CHEM 492, culminating in a written and oral report. Prerequisites: Adoption of a research area, a research advisor, and a chemistry GPA of 2.3 or higher or permission of the instructor and department chairperson.

CHEM 400 (3-2-2) Computational Chemistry
The lecture portion of this course includes an introduction to the different levels of quantum calculations and to the principles of molecular mechanics and classical dynamics. Topics include molecular modeling by simple Hückle, extended Hückle, semi-empirical, and ab initio quantum calculations, as well molecular mechanics. Chemical reactions will be investigated by quantum methods and molecular-reaction dynamics. The laboratory portion of this course consists of experiments conducted on personal computers and/or workstations illustrating each of the levels of quantum calculations, molecular mechanics conformational searching and intermolecular docking, and investigation of chemical reactions by semi-empirical and ab initio methods.
initio quantum calculations as well as by dynamics calculations. Prerequisites: CHEM 222 and CHEM 322 or permission of the instructor.

**CHEM 410 (1-0-3 Seminar in Chemical Literature)**
A detailed examination of the chemical literature on a relatively narrow topic for presentation of written and oral reports. Prerequisites: CHEM 210, CHEM 222, CHEM 321, 322, or 324.

**CHEM 421 (3-3-0) Inorganic Chemistry**
An advanced study of descriptive and synthetic inorganic chemistry, structure, and bonding. Prerequisites: CHEM 222, CHEM 321, with CHEM 322 encouraged.

**CHEM 430 (3-3-0) Special Topics in Chemistry**
An advanced, structured investigation in one of the specialty areas of chemistry. Prerequisite: Permission of instructor.

**CHEM 431 (3-1-4) Qualitative Organic Analysis**
An advanced introduction to the principles of classification and identification of organic compounds by traditional and modern analytic techniques. Prerequisite CHEM 222.

**CHEM 491 (2-0-6) Research II**
Active, original research under one or more of the chemistry faculty. Prerequisite CHEM 390.

**CHEM 492 (4-0-12) Research III and Thesis**
A continuation of research culminating in a written thesis and an oral presentation. Prerequisite CHEM 491.

### Communications (COMM)

**COMM 205(3-3-0) Introduction to Communication**
The study of communication in expediting learning, affecting social interaction and effective change, and an exploration of the components of interpersonal, small group, public and organizational communication.

**COMM 210 (3-3-0) Introduction to Mass Communications**
A survey of the role of mass media in modern society. The process, functions, responsibility and effects of various forms of mass communication will be analyzed. Prerequisite COMM 205.

**COMM 320 (3-3-0) Audio Production I**
An introduction to the planning and production of audio in mass media, including practical studies of the uses of sound and the planning, scripting, rehearsing, and directing process of audio production. Prerequisite COMM 210.

**COMM 330 (3-1-2) Writing for Mass Media**
A survey of the various forms of written expression in mass media. Prerequisite COMM 205, ENGL 120.

**COMM 350 (3-3-0) Telecommunications Management**
A course exploring management functions in a telecommunications environment. Economic support patterns, programming, promotion, advertising, determination of community needs and facility operations will be covered. Prerequisite COMM 210.

**COMM 360 (3-1-2) Video Production I**
An introduction to the elements of television production, including cameras, audio, staging, lighting, graphics, recording, and special effects. Prerequisite COMM 210.

**COMM 370 (1-0-3) Communication Practicum**
A practical study of an area of communications, with reading assignments supplementing course activities.

**COMM 375 (3-3-0) Organizational Communication**
Organizational Communication provides the student with a background in theory and research about communication within organizations. The course focuses on interpersonal communication within organizations, small group communication within organizations, leadership and management within organizations and communication conflict within organizations. Prerequisites: SPEE 200 and COMM 205.

**COMM 380 (3-3-0) Non-Broadcast Telecommunications Systems**
An introduction to the use of telecommunications media in corporate, industrial, medical, educational, military, governmental and public service institutions. Prerequisite COMM 210.

**COMM 390 (3-3-0) Cable Communications**
An examination of the cable television industry including technical aspects, franchising, programming, and government regulation. Prerequisite COMM 210.

**COMM 410 (3-0-5) Mass Media Internship I**
A course providing students with opportunities for combining theory and practice by their arranging, outlining, and engaging in a program of practical experiences under the joint supervision of a communications organization or agency and the course instructor. Prerequisite 12 credits in COMM courses.

**COMM 420 (3-0-5) Mass Media Internship II**
A second course for students to further their experiences in communications media by continuing their program from COMM 410 or arranging a new program under the joint supervision of a communications agency and the course instructor. Prerequisite 12 credits in COMM courses.

**COMM 430 (3-3-0) News and Public Affairs**
A study of the principles, techniques, and forms of journalism, with students gaining experience in preparing, editing, and delivering news and public affairs materials for a variety of media. Prerequisite COMM 330.
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COMM 440 (3-1-2) Audio Production II
An advanced course in audio production techniques including remote setups, studio operations, and multitrack recording. Prerequisite COMM 320.

COMM 450 (3-3-0) Telecommunications Law
Principles and case studies in communications law including constitutional guarantees, libel, privacy, contempt, privilege, copyright, and governmental regulatory agencies. Prerequisite COMM 210.

COMM 460 (3-1-2) Video Production II
An advanced course in video production techniques providing a laboratory experience in production and direction of video projects. Prerequisite COMM 360.

Cooperative Education (COOP)

COOP 431 (3-0-5) Cooperative Education I
A program integrating the classroom curriculum with planned periods of in-service professional work related to the student’s declared major. Cooperative Education is offered on a competitive basis through the Office of Career Services & Placement in conjunction with the Academic Advisors, Department Chairpersons and Academic Deans. The students ordinarily begin their first in-service experience at the end of the sophomore year.

COOP 432 (3-0-5) Cooperative Education II
A continuation of the cooperative work experience program. Prerequisite COOP 431 or COOP 433.

COOP 433 (6-0-5) Cooperative Education III
A program integrating the classroom curriculum with planned periods of full-time in-service professional work related to the student’s declared major. Cooperative Education is offered on a competitive basis through the Office of Career Services & Placement in conjunction with the Academic Advisors, Department Chairpersons and Academic Deans. The students ordinarily begin their first in-service experience at the end of the sophomore year.

COOP 434 (6-0-5) Cooperative Education IV
A continuation of the cooperative work experience program. Prerequisite COOP 433.

COOP 435 (6-0-5) Cooperative Education V
A continuation of the cooperative work experience program. Prerequisite COOP 434.

Criminal Justice (CRJC)

CRJC 200 (3-3-0) Introduction to the Criminal Justice System
A survey course designed to familiarize students with the functions, structure, and organization of the agencies that are responsible for the administration of justice in America. Specifically, the course deals with the police and issues related to law enforcement, prosecution of offenders, the judicial system, and corrections.

CRJC 201 (3-3-0) Introduction to Law Enforcement
A study of the history and philosophy of local, state, and federal law enforcement entities in the U.S. with emphasis on the interdependence of law enforcement and other components of the criminal justice system. The course also examines the roles of the police in the administration of justice and the critical issues that affect law enforcement in contemporary society.

CRJC 202 (3-3-0) Legal Aspects of Criminal Justice
A study of the procedural aspects of the legal process and administration of justice including a discussion of constitutional guarantees, roles of judges and lawyers, the courtroom work group, constraints of the exercise of police powers, and the exclusionary rule.

CRJC 212 (3-3-0) Juvenile Justice System
A survey course designed to provide an overview of the system of justice specially designed for juveniles who need some form of intervention in their lives with particular emphasis on the agencies, institutions, procedures, law, programs, and philosophies that guide the administration of juvenile justice.

CRJC 220 (3-3-0) Introduction to Corrections
This course examines the historical development, current changes, and future trends in correctional policies and strategies including analysis and evaluation of concepts and theories of retribution, deterrence, rehabilitation, incapacitation, and other purposes of correctional reform. Special emphasis will be placed on the underlying social, legal, and ethical issues that affect various correctional strategies.

CRJC 230 (3-3-0) Criminal Evidence
A course focusing on the various types of evidence used in both civil and criminal proceedings with emphasis on the rules governing the admissibility of evidence and the procedures for handling evidentiary issues in the courtroom.

CRJC 243 (3-3-0) Writing for Criminal Justice
Emphasis is placed on the development of writing skills required for careers in law, civil service, and public administration, including various forms of correspondence, interoffice memos, informal reports, minutes of meetings, summaries, briefings, and presentations; proofreading, revising, and editing; writing for culturally diverse audiences; and criminal justice terminology.

CRJC 263 (3-3-0) Community Policing
An in-depth study of the major concepts and issues involved in community policing, including its history and development, philosophy, and the theoretical and practical dimensions of this innovative change in the perceived role and function of modern policing.

*CRJC 300 (3-3-0) Criminal Law
An involved philosophical analysis of criminal law principles and concepts focusing on both the procedural
aspects and the substantive elements of the various crimes, criminal court decisions, and the practical application of such principles and concepts in the courtroom. Prerequisite CRJC 200.

CRJC 303 (3-3-0) Ethics in Criminal Justice
A critical examination of the diverse ethical issues encountered in the American criminal justice system with a focus on comparing and contrasting the principles of moral philosophy and ethical theory to the practices of criminal justice agencies.

CRJC 305 (3-3-0) Race, Class, and Gender in Criminal Justice
A comprehensive examination of the concepts of race, class, and gender as determinants of the structure and function of the American criminal justice system, including the relationship between race, class, gender, and crime; issues of race, class, and gender discrimination; and the ideological and political debates that both integrate and segregate theories of race, class, gender, and crime.

*CRJC 310 (3-3-0) Community Based Corrections
An in-depth theoretical perspective of the social, legal, and ethical issues which gave rise to the development of contemporary strategies of corrections in the community including programs such as probation, parole, other alternatives to incarceration, intermediate sanctions, and diversionary programs. Prerequisite CRJC 200 and CRJC 220.

*CRJC 311 (3-3-0) Criminal Justice, Organization, Management and Administration
A theoretical course focusing on the organization, management, and administration of local, state, and federal criminal justice agencies with emphasis on how the structure and functions of such agencies affect the administration of justice. Prerequisites: CRJC 200, CRJC 201, and CRJC 220.

*CRJC 320 (3-3-0) American Criminal Courts System
This course focuses on the structural outlay and philosophy of the court system in America with special emphasis on court procedures, structures, constitutional guarantees, the trial process, the roles of judges, prosecutors, defense attorneys and juries. Prerequisite CRJC 200.

CRJC 351 (3-3-0) Special Problems in Criminal Justice/Criminology
An advanced analysis of contemporary interdisciplinary issues within the fields of criminal justice and criminology including perspectives on the deathpenality, prison over crowing, computer crimes, victimology, the insanity defense, use of force, media and crime, race and crime, women and crime, and juvenile violence.

CRJC 361 (3-3-0) Comparative Criminal Justice
A theory-based comparison of the American criminal justice system with a number of selected criminal justice systems from around the world. Emphasis will be placed on how the social organization of a specific society affects the definition of crime and the administration of justice.

CRJC 411 (3-3-0) Criminal Justice Research (SOCI 332)
This course teaches students the various methods of collecting and analyzing data, with emphasis on research design, research instrument construction, data analysis, and reporting of results. The course includes a lab that involves computerized data analysis. Prerequisite SOCI 331

CRJC 420 (3-3-0) Criminological Theory
This course exposes students to different theoretical perspectives in the study of crime; it acquaints students with various explanations that have been offered in an effort to understand criminal behavior. Particular attention will be paid to the idea of crime as a social phenomenon.

CRJC 430 (3-3-0) Internship In The Criminal Justice System
This course provides students with the opportunity to synthesize theory and practice in a supervised work environment in a criminal justice agency, with the students' progress and performance on the job monitored jointly by the agency head and the course instructor. Prerequisites: Students must complete 90 credit hours of course work which must include: CRJC 200, CRJC 201, CRJC 220, CRJC 300, CRJC 310, and CRJC 320 before enrolling in this course.

CRJC 450 (3-3-0) Seminar in Criminal Justice
This course is designed to provide students with an in depth understanding of the functioning of the various sub agencies that make up the American criminal justice system. Emphasis will be placed on how the organization, management, and the goals of each sub-agency affect administration of justice. Prerequisite: CRJC 200, 201, 212, 220, 300, 310, and 320.

CRJC 460 (3-3-0) Probation and Parole in North Carolina
This course is designed to acquaint students with the laws governing sentencing and the granting of probation in the state of North Carolina. It also deals with release on parole after a period of incarceration in prison. Consideration will also be given to placement in other forms of community based corrections in the state of North Carolina.

CRJC 470 (3-3-0) Crime Prevention
A survey of contemporary approaches to crime prevention from the perspectives of environmental design and psychobiology, with special attention to environmental influences and methods of rehabilitation in analyses of the causes and treatment of criminal behavior. Course offered as needed.

*These courses cannot be fulfilled by 100 and 200 level courses transferred from community or junior colleges.
Computer Science (CSC)

CSC 100 (3-3-0) Introduction to Computers
This course covers fundamental concepts of computer and their applications using micro/mini computers in stand-alone and networked environments, including the use of software for word processing, spreadsheets and databases. Majors in computer science will not receive credit for this course. Prerequisite: Satisfactory placement scores in mathematics, reading, and writing.

CSC 101 (3-3-0) Computer Programming Language (FORTRAN)
This course is an introduction to FORTRAN, a problem-oriented computer language for use in scientific and mathematical problem solving. Prerequisite: MATH 123 or consent of department. CSC 102 (3-3-0) Computer Programming.

CSC 102 (3-3-0) Computer Programming Language (COBOL)
This course is an introduction to COBOL, a problem-oriented computer language for use in the development of business computer applications, problem-solving with the aid of digital computers. Prerequisite: MATH 121 or consent of department.

CSC 104 (3-3-0) Introduction to Computer Science
This course is an introduction to the basic, fundamental topics and skills needed by students who anticipate entering the Computer Science degree program, but have insufficient prior computing experience. Topics include: basic computer organization, file creation and management, basic UNIX commands, basic vi editor usage, elements of programming, compilation and execution, electronic mail, basic internet usage, and related usage. This course is not open to students with credit for a higher level computer science course.

CSC 110 (3-3-0) Programming in Pascal
This course provides an introduction to methodical programming in Pascal, including programming principles and good style suitable for scientific and mathematical problem-solving. This course cannot serve as a CSC restricted elective. Prerequisite: CSC 104 or higher and MATH 123 or higher.

CSC 120 (3-3-0) Introduction to Programming Methodology
This course is the first course of a two-semester sequence that provides an overview of programming methodology and program writing skills. Topics include basic concepts of computer systems, problem solving and algorithm development, program structures, data types, program development, method and style, coding, debugging, testing, and documentation. Prerequisite: MATH 129 or MATH 131 or higher.

CSC 130 (3-3-0) Program Design and Implementation
This course is the second of a two-semester sequence that focuses on a disciplined approach to design, coding, and testing of programs. Topics include data abstraction, data structures, and searching and sorting algorithms. Prerequisite: CSC 120.

CSC 201 (3-3-0) Basic Computer Organization and Assembly Language
This course focuses on the logical basis of computer structure, machine representation of numbers and characters, form of control, instruction codes (symbolic), arithmetic and logical operation, indexing, I/O subroutine linking, macros, and number systems as related to computer operations. Prerequisite: CSC 130 and MATH 150.

CSC 202 (3-3-0) Programming in C
This course focuses on programming and software development strategies in the C programming language. Material includes syntax and semantics of C. Directed projects in C are an integral part of the course. Prerequisites: CSC 130.

CSC 204 (3-3-0) Object Oriented Programming
This course focuses on object-oriented programming and software development strategies. Material includes syntax and semantics of a specific object-oriented programming language. Directed projects are an integral part of the course. Prerequisite: CSC 130.

CSC 206 (3-3-0) Functional Programming
This course focuses on programming and software development strategies in a functional language. Material includes syntax and semantics of a specific functional language. Directed projects are an integral part of the course. Prerequisite: CSC 130.

CSC 207 (3-3-0) Logic Programming
This course involves programming and software development strategies in the logical paradigm. Material includes syntax and semantics of a language in this paradigm. Directed projects are an integral part of the course. Prerequisite: CSC 130.

CSC 209 (3-3-0) Windowing Environment Programming
This course involves how to develop and program graphical user interfaces (GUI) using current programming toolkits and GUI tools. Prerequisite: CSC 130.

CSC 220 (3-3-0) Data Structures and Algorithms
This course explores data structures from various viewpoints: data structure design in response to a specific need, the expression of an algorithm in terms of the operations on the data structure, and complexity of operations. This course reinforces the knowledge of data structures gained in CSC 130 and extends it, particularly with regard to complexity of corresponding algorithms. Prerequisites: CSC 130 and MATH 150.

CSC 300 (2-0-0) Professional Practice in Computing
This course requires preparation and submission of a comprehensive report based on actual employment
experience in a computer-science cooperative job or internship. This course is designed for course substitution for Cooperative Education courses, and it may be used only twice for a maximum of six credits. It may not be used twice in the same semester. Prerequisites: Admission to the cooperative education program and majoring in computer science.

CSC 310 (3-3-0) Introduction to Numerical Methods
This course focuses on computer techniques used to translate certain known computational algorithms into computer programs, and practice in use of existing mathematical library routines. Topics include linear systems of equations, curve fitting and interpolation algorithms for differentiation, solution of non-linear equations, solution of ordinary differential equations, and elementary discussion of errors. Prerequisites: CSC 101 or higher, MATH 24,1MATH 251.

CSC 323 (3-3-0) Principles of Database Design
This course emphasizes the concepts and structures necessary to design and implement a database management system. It will acquaint the students with current literature on the subject and give them an opportunity to use a database management system. Topics include database concepts, hierarchical, network and relational data models, data normalization, data description languages, query facilities, file organization, file security, data integrity, and reliability. Prerequisite: CSC 220.

CSC 332 (3-3-0) Theory of Computation
This course covers basic theoretical principles embodied in formal languages, automata, computability, and computational complexity. Topics include finite automata, pushdown automata, non-determinism, regular expressions, context-free grammars, Turing machines, Godel numbering, Church’s thesis, the halting problem, unsolvability, and computational complexity. Prerequisites: CSC 220 and MATH 250.

CSC 342 (3-3-0) Software Tools
This course covers software development on a specific platform such as Unix. Topics include general utilities, shell programming, file processing and manipulation, text patterns, software management facilities, linkers, loaders, debuggers, compilers, editors, filters, and macro processing. Prerequisite: CSC 220.

CSC 350 (3-3-0) The Teaching of Computer Science (variable credit, 1 to 3 hours per semester)
Under the supervision of the Computer Science faculty students will hold discussion sections for introductory computer science courses and will serve as tutors and assistants in the laboratories. Students will attend a weekly lecture section to become familiar with course materials, problem-solving skills, and approaches that will aid their tutoring and assisting introductory students in completing their assignments. One credit hour shall be awarded for each four (4) hours per week of laboratory assistance. The course may be repeated, up to a maximum of six (6) credit hours.

Course grade is either pass (P) or not-pass (NP). Prerequisites: 18 hours of CSC credit and permission of the department.

CSC 380 (3-3-0) Data Communications and Computer Networks
This course provides an introduction to data transmission and computer networks. Topics include digital data communication techniques, data link control, communication network techniques, circuit switching, packet switching, local and wide area networks, the OSI model, architecture and topology of computer communications, and network access protocols. Prerequisites: CSC 201 and CSC 220.

CSC 390 (3-3-0) Topics in Computer Science
This course is designed to cover contemporary topics of current interest and demands in computer and information science at the junior and senior levels. It may be repeated for credit with approval of department.

CSC 403 (1-1-0) Social, Ethical, and Professional Issues
This course discusses the impact of computers on society including people, business, and government. Topics include historical and social issues, security, privacy, professional responsibilities, risks and liability, and intellectual property. Prerequisites: CSC 220 or consent of instructor.

CSC 410 (3-3-0) Introduction to Compiler Design Theory I
This course introduces basic mathematical theory underlying the design of compilers and other language processors, and the implementation of the theory in practical design situations. Prerequisites: CSC 201, CSC 220, and CSC 332.

CSC 411 (3-3-0) Introduction to Compiler Design Theory II
This course is a continuation of CSC 410. It covers advanced topics in the theory of designing compilers and other language processors, and implementing practical design situations. Prerequisite: CSC 410.

CSC 413 (3-3-0) Advanced Numerical Methods
This course is a continuation of CSC 310. Topics covered include interactive techniques in matrix algebra, numerical solutions of nonlinear systems of equations, initial-value problems for ordinary differential equations, boundary-value problems for ordinary differential equations, and numerical solutions to partial-differential equations. Prerequisites: CSC 310 and MATH 331.

CSC 414 (2-2-2) Advanced Theory of Programming Languages
This course considers the principal programming language concepts and shows how they are dealt with in the design and implementation of traditional imperative languages, functional languages, logic languages, and object-oriented languages. Topics include history, virtual machines, representation of data types, sequence control, data control,
data sharing, data type checking, run-time storage management, and distributed and parallel programming constructs. Prerequisite: CSC 201, CSC 220, MATH 250, and either CSC 206 or CSC 207.

CSC 431 (3-3-0) Principles of Operating Systems
This course is designed to develop an understanding of the organization and architecture of computer systems at the register-transfer and programming levels of system description. Major concept areas of operating systems principles and the inter-relationships between the operating systems and the architecture of computer systems are taught. Topics include system structure, process concept, CPU scheduling, process synchronization, deadlocks, and memory management. Prerequisite: CSC 201 and CSC 220.

CSC 432 (3-3-0) Operating System Design and Implementation
This course provides for the study of advanced software techniques, especially focusing on operating systems. It presents materials that will enable the student to design, use, and analyze current and future operating systems. Topics include I/O programming, interrupt programming, memory management, processor management, device management, design and implementation of operating systems. Prerequisite: CSC 431.

CSC 434 (3-3-0) Introduction to Artificial Intelligence
An introduction to the history, goals, social impact, and philosophical implications of artificial intelligence. Topics include problem representation as state spaces, search, logic systems, semantic networks, frames, and neural networks. Identification of application areas such as natural language processing, expert systems, robotics, planning, and vision. Prerequisite: CSC 220, MATH 250 and either CSC 206 or CSC 207.

CSC 451 (3-3-0) Computer Graphics I
This course introduces hardware and software components of graphics systems, and graphic application programming. Programs to deepen understanding of interactive graphics, picture plotting and input handling in an integrated manner will be written. Topics include geometrical transformation, three-dimensional concepts, windowing, clipping, segmentation, logical interaction input methods, raster algorithms, algorithms for hidden surface and hidden line removal, and shading and color. Prerequisites: CSC 220, MATH 241 and MATH 251.

CSC 452 (3-3-0) Computer Graphics II
This course is devoted to a graphics project in which the student will treat fundamental techniques for representing three-dimensional surfaces in making realistic pictures of three-dimensional objects with the help of raster graphics techniques. Prerequisite: CSC 451.

CSC 460 (3-3-0) Introduction to Computer Simulation
This course introduces simulation and modeling of systems with concentration on discrete stochastic systems. Topics include modeling and simulation techniques, Monte Carlo methods, queueing models, and computer simulation languages such as GPSS, and SIMSCRIPT. A simulation project is developed, completed, and presented by each student as a member of a project team. Prerequisite: Proficiency in a programming language and STAT 301.

CSC 470 (3-3-0) Software Engineering
This course introduces students to an intensive study of writing large programs, program design and programming style, and object-oriented development techniques in an attempt to manage the complexity of large software systems. Topics include principles of software engineering, object-oriented development, data structures, database systems, concurrent real-time processing, systems development, a programming support environment, and the software life cycle. Prerequisites: CSC 342.

CSC 473 (3-3-0) Computer Architecture and Parallel Processing I
This course provides for the study of computer architectures featuring parallel processing. Topics include computer architectures, theories of parallel computing, optimal resource allocation, fast algorithms, efficient programming languages, and application requirements of cost-effective computer systems. Programming assignments will illustrate applications on uniprocessor systems and a multiprocessor system. Prerequisite: MATH 242, MATH 251, and proficiency in FORTRAN C or C++.

CSC 474 (3-3-0) Computer Architecture and Parallel Processing II
This course is a continuation of CSC 473. Topics from the first course are studied from an advanced standpoint. Prerequisite: CSC 473.

CSC 480 (3-3-0) User Interface Development
A course on user-interface technology and human-computer interaction issues including user productivity, system habitability, abstraction barriers, and human factors. Topics include command languages, hierarchical menus, direct manipulation (graphical user interfaces), multimedia interfaces, multimodal interaction, and user interface management systems. Prerequisite: CSC 220. Corequisites: CSC 451, or CSC 470, or consent of instructor.

CSC 490 (3-1-3) Senior Project
This course presents a formal approach to state-of-the-art techniques in software design and development and provides a means for students to apply the techniques. An integral part of the course is the involvement of students working in teams in the organization, management, and development of a large software project. The team project aspect can be facilitated either by scheduling separate laboratories or by using some of the lecture periods to discuss practical aspects of the team projects. Topics include formal models of structured programming, demonstrations or code reading and correctness, step-wise refinement and reorganization, segmentation, top-down design and development, information hiding, iterative enhancement, structured design, strength and coupling measures, milestone
and estimating, chief programmer teams, program libraries, walk through, documentation, organization, management and development of a large-scale software project by students working in teams. Prerequisites: CSC 323, CSC 342, and CSC 431.

Economics (ECON)

ECON 200 (3-3-0) Economics of Decision Making
An Internet survey course designed to teach students the decision making skills necessary to negotiate their roles as consumers, savers, investors, voters, and above all, as productive citizens in a global setting. The course also emphasizes the practical aspect of economics and examines the microeconomic (individual) and the macroeconomic (aggregate) implications of decision making.

ECON 211 (3-4-0) Principles of Macroeconomics
An examination of the basic concepts and principles of macroeconomics and their application to current domestic and international issues. Prerequisite MATH 123.

ECON 212 (3-4-0) Principles of Microeconomics
An introduction to the subject of economics, with emphasis on microeconomic principles and their application to business decision making and current domestic and global issues. Prerequisite MATH 123. Student may begin sequence with either ECON 211 or ECON 212.

ECON 310 (3-3-0) Managerial Economics
An in-depth study of the managerial decision-making process and its tools, including such topics as forecasting demand, cost analysis, pricing, capital budgeting, and risk and uncertainty. Prerequisites: ECON 211, ECON 212, MATH 140.

ECON 315 (3-3-0) Intermediate Microeconomics
An in-depth study of the working of price mechanism within the framework of a free enterprise economy; a detailed examination of the behavior of consumers and firms, the theory of distribution, and welfare economics (with applications to international trade and personal income distribution). Prerequisite ECON 212 and MATH 140.

ECON 316 (3-3-0) Applied Macroeconomics
An in-depth study of theories of national income determination, employment, interest, inflation, balance of payments, exchange rate, fluctuations in the aggregate economic activity, and their relevance to managerial decision making. Prerequisites: ECON 211, ECON 212, MATH 123, and MATH 140.

ECON 322 (3-3-0) Money, Banking and Monetary Policy (FINC 323)
A formal examination of the role of money, banking, and financial institutions, as well as rudimentary discussion of monetary policy issues in the domestic and international economies. Prerequisite: ECON 211, ECON 212, and MATH 123.

ECON 321 (3-3-0) Applied Econometrics
An applied overview of econometrics, with an emphasis on hands-on regression analysis using statistical programs on a microcomputer. The course covers such topics as equation specification and interpretation, applied estimation theory, hypothesis formulation and testing, data gathering and manipulation, and dealing with problems like multicollinearity, autocorrelation and heteroskedasticity. Prerequisites: MATH 140 and BADM 211.

ECON 340 (3-3-0) Economic Development
An examination of the leading issues and theories of economic development and their relevance to the developing countries. The course will also examine some of the unique problems of businesses in these countries. Prerequisite ECON 211, ECON 212, and MATH 123.

ECON 351 (3-3-0) International Trade and Finance (FINC 354)
A survey of the theories of international trade, balance of payment, exchange rate determination, international portfolio investment (including currency swaps, options and futures) international financial management (global cost, budgeting, and capital flows) and related monetary issues. Prerequisite ECON 211, ECON 212, and MATH 123.

ECON 430 (3-3-0) Economic Problems
An in-depth study of current economic and social problems and their implications for business and society. Among the issues covered are: crime and the justice system, poverty, discrimination in labor markets, health care and social security, as well as government antitrust policies and regulation of markets. Prerequisite: ECON 211, ECON 212, and MATH 123.

ECON 432 (3-3-0) Industrial Organization and Public Policy
An analysis of industrial organization, vertical and horizontal relationships between firms, pricing, output, and advertising policies of firms in a variety of market structures, including a detailed study of the content, success, and failure of anti-trust legislation. Prerequisites: ECON 231 and ECON 315

ECON 440 (3-3-0) Seminar in Economics
The culmination of the undergraduate study of economics providing opportunities for students to apply knowledge and training to the analysis of current economic problems. Students select projects of their choice and work under the supervision of the instructor. Prerequisites: Senior standing and consent of the instructor.

ECON 450 (3-0-0) Economics Internship (FINC 453) (BADM 430)
A practical course enabling students to apply their theoretical knowledge of economics/finance to real situations and to gain practical experience in business, financial industry, and government institutions. Prerequisite Consent of instructor.
**ECON 453 (3-3-0) Financial Markets**
A course in macro finance which focuses on financial markets and financial institutions. Money and capital markets and their role in the savings—investments process are considered. Topics such as the market for loanable funds, flow-of-funds accounts and securitization are covered. Prerequisite: FINC 323 (ECON 322).

**Education Middle Grades (EDMG)**

**EDMG 470 (6-0-6) Student Teaching in the Middle Grades**
An internship in the public middle schools providing prospective education professionals with opportunities to observe professionals in the classroom, to practice teaching under supervision, and to participate in all other activities expected of regular in-service teachers in their role as facilitators of learning. Prerequisite: All required methods courses. (Fall, Spring).

**EDUC 210 (3-3-0) Computers in Education**
An introduction to the computer and its use in facilitating learning, including applications, elementary programming procedures, and available software. (Fall, Spring, Summer).

**EDUC 211 (2-1-2) Laboratory Experiences in Area Schools**
An introduction to laboratory experiences in area elementary, middle, and secondary schools, providing facilitation opportunities for prospective education professionals to observe student-teacher interactions and to develop an understanding of learning in the school setting. Bi-monthly seminars and workshops, thirty-six (36) hours of field experience, and thirty (30) hours in the PRAXIS Lab are required. (Fall, Spring).

**EDUC 291 (1-3-0) Educational Simulations**
A course designed to enhance professional education competencies of traditional and non-traditional students through the use of lectures, class discussions, simulations, computers, and interactive videos. Topics will include the following: test-taking skills, critical thinking skills, and related course content. (Fall, Spring).

**EDUC 310 (3-3-0) Foundations of Education**
A study of the origins, evolution, and interrelatedness of the principles and practices of disciplinary foundations of education and their influence on education. Field experience required. (Fall, Spring, Summer).

**EDUC 311 (3-3-0) Foundations of Multicultural Education and Diversity**
The facilitator of learning will explore the historical development of multicultural education, definitions of multicultural education and diversity concepts, the intercultural conflicts from philosophical cultural differences, and principles guiding multicultural education.

**EDUC 315 (3-3-0) Music and Art in Elementary School**
An introduction of prospective elementary school professionals to the rudiments of music and art in the classroom, including methods, materials and activities in music and art that can be incorporated by the classroom teacher. (Fall, Spring).

**EDUC 330 (3-3-0) Educational Psychology and Measurement**
An exploration of psychological principles and their applications to the problems of teaching and learning, including characteristics of stages in human development, theories of motivation and learning, classroom management strategies, individual differences, exceptional children, and the measurement and evaluation of student achievement and teaching strategies. Field experience required. (Fall, Spring, Summer).

**EDUC 340 (3-3-0) Human Development**
A study of human development from conception to young adulthood, with emphasis on the early and middle childhood years (2-12) for elementary and middle grades education majors and on the early and late adolescent years (13-21) for secondary education majors. Field experience required. (Fall, Spring, Summer).

**EDUC 350 (3-3-0) Curriculum and Activities in Early Childhood Education**
An overview of the organization, nature, and scope of early childhood education programs in the areas of language arts, social studies, mathematics, science, music, art, drama, and constructive play, with emphasis on social learning and development and the influence of social factors upon curriculum content. Field experience required. (Summer).

**EDUC 351 (2-2-0) Teaching Language Arts in the Elementary School (K-6)**
A critical study of the current practices, teaching methodologies and strategies, and resources for teaching the language arts (including reading, writing, listening, speaking, and spelling) and the visual arts in the elementary school. (Fall and Spring) Prerequisite: Admission to teacher education. Field experience required.

**EDUC 352 (3-3-0) Teaching Social Studies in the Elementary School**
An introduction to current trends, practices, methods, and resources for facilitating social studies education, with particular emphasis on multicultural education, curriculum planning, and the impact of cultural influences on learning and values clarification. (Fall and Spring) Prerequisite: Admission to teacher education.

**EDUC 400 (3-3-0) The Middle School**
An introduction to the basic principles, policies, and philosophies that undergird middle school education in the United States. (Fall, Spring).
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EDUC 41 (3-3-0) Principles of Secondary Education&lt;br&gt;A comprehensive overview of the history and development of secondary education, the philosophy undergirding the knowledge base of the curriculum, and the influence of contemporary social forces in shaping the curriculum. Corequisite EDUC 480. (Fall, Spring)</td>
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<tr>
<td>EDUC 42 (3-3-0) Methods of Teaching Science K-6&lt;br&gt;A critical analysis of the content and teaching strategies in the biological, physical, environmental, and earth sciences applicable to the elementary grades (K-6). (Fall and Spring) Prerequisite Admission to teacher education.</td>
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<tr>
<td>EDUC 43 (3-3-0) Principles of Guidance&lt;br&gt;A study of the principles, purposes, techniques, and anticipated behavioral results relating to the guidance and counseling of students. Students who have taken PSYC 431 may not take this course.</td>
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<tr>
<td>EDUC 44 (3-3-0) Principles of Counseling&lt;br&gt;An introduction to the theories and practice of guidance and counseling. Students who have taken PSYC 432 may not take this class.</td>
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</tr>
<tr>
<td>EDUC 45 (3-0-2) Methods and Materials of Teaching Mathematics in the Middle Grades&lt;br&gt;An introduction to the knowledge base, teaching strategies, materials, and resources basic to middle grades mathematics education. Prerequisite Admission to teacher education.</td>
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<tr>
<td>EDUC 46 (3-3-0) Guidance and Counseling Practicum&lt;br&gt;A practicum providing supervised counseling experiences in a true-to-life setting, with emphasis given to practical and applied aspects of counseling and various guidance activities.</td>
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<tr>
<td>EDUC 47 (3-3-0) The Elementary School Curriculum&lt;br&gt;A study of the elementary school program for levels K-6, focusing on the study of the interrelationships between content, method, and child development.</td>
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<tr>
<td>EDUC 48 (2-2-0) Classroom Management/Parent Counseling and Guidance&lt;br&gt;An introduction to strategies for facilitating learning through better classroom management, with emphasis on the role of parents in classroom management and on counseling techniques related to management strategies and parenting. (Fall and Spring) Prerequisite Admission to teacher education. Field experience required.</td>
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<tr>
<td>EDUC 49 (2-2-0) Teaching Mathematics in the Elementary School (K-6)&lt;br&gt;A concentrated view of basic mathematics, mathematical concepts, and algorithms applicable to the elementary grades, with emphasis on content and activities related to various approaches and strategies for teaching mathematics in the elementary grades (K-6). Prerequisite Admission to teacher education. (Fall, Spring).</td>
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<tr>
<td>EDUC 50 (2-2-0) Teaching Science in the Elementary School (K-6)&lt;br&gt;A review of scientific principles, laws, and concepts related to the natural sciences, as well as process-oriented inquiry methods appropriate to a child-centered environment. Prerequisite Admission to teacher education. (Fall, Spring).</td>
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<tr>
<td>EDUC 51 (3-3-0) Methods and Materials in Secondary School Subjects&lt;br&gt;A study of the objectives, materials, and teaching strategies, resources, and materials basic to middle grades (6-9) education. Prerequisite Admission to teacher education. Field experience required.</td>
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<tr>
<td>EDUC 52 (3-3-0) Methods &amp; Materials of Teaching Language Arts in the Middle Grades&lt;br&gt;An introduction to the teaching strategies, resources, and materials basic to middle grades (6-9) education. Prerequisite Admission to teacher education. Field experience required.</td>
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<tr>
<td>EDUC 53 (3-3-0) Methods &amp; Materials of Teaching Social Science in the Middle Grades&lt;br&gt;An introduction to the knowledge base, teaching strategies, resources, and materials basic to middle grades social studies education. Prerequisite Admission to teacher education. Field experience required.</td>
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<tr>
<td>EDUC 54 (3-3-0) Methods and Materials of Teaching Science in the Middle Grades&lt;br&gt;A brief review of the scientific principles, laws, and concepts prescribed in the knowledge base for teachers of science in the middle grades (6-9), with emphasis on science units and lesson planning, laboratory demonstrations, experimental replication, and simulated teaching experiences. Prerequisite Admission to teacher education. Field experience required.</td>
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<tr>
<td>EDUC 55 (3-3-0) Methods and Materials in Physical Education (K-12)&lt;br&gt;An introduction to activities, teaching strategies, materials, and resources applicable to the physical education of students in grades K-12.</td>
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<tr>
<td>EDUC 56 (6-0-6) Student Teaching in the Elementary School&lt;br&gt;An internship in the public schools providing prospective education professionals with opportunities to observe professionals in the classroom, to practice teaching under supervision, and to participate in other activities expected of regular in-service teachers in their role as facilitators of learning. Prerequisites: All required methods courses. (Fall, Spring).</td>
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<tr>
<td>EDUC 57 (6-0-6) Student Teaching&lt;br&gt;An internship in the public secondary school providing prospective education professionals with opportunities to observe professionals in the classroom, to practice teaching under supervision, and to participate in other activities expected of regular in-service teachers in their role as facilitators of learning. Prerequisites: All required methods courses. (Fall, Spring).</td>
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</table>
under supervision, and to participate in other activities expected of regular in-service teachers. (Fall and Spring) Prerequisite: All required methods courses.

**EDUC 490 (1-1-0) Professional Education Seminar**
A forum for discussions of teaching strategies, methodologies, materials, and experiences observed during the student-teaching experience and of such issues as mainstreaming, multicultural education, use of computers, new trends to facilitate learning in educational settings, and effective resume writing and interviewing techniques. Corequisite: Admission to student teaching. (Fall, Spring)

**Elementary Education (ELEM)**

**ELEM 353 (3-2-2) Teaching Language Arts in the Elementary Schools**
A critical study of the current practices, teaching methodologies and strategies, and resources for teaching the language arts (including reading, writing, listening, speaking, and spelling) and the visual arts in the elementary school. Students are required to complete a field experience in elementary classrooms. Prerequisite: Admission to Teacher Education.

**ELEM 354 (3-2-2) Teaching Social Studies in the Elementary School**
An introduction to the current trends, practices, methods, and resources for facilitating social studies education, with particular emphasis on cultural diversity, curriculum planning, and the impact of cultural influences on teaching and learning. Course content includes an internship and demonstration lessons in elementary classrooms. Prerequisite: Admission to Teacher Education.

**ELEM 451 (3-2-2) Classroom Management for Elementary Teachers**
An introduction to the strategies for facilitating learning through effective classroom management, parent counseling and guidance strategies for the elementary classroom. This course helps elementary pre-service and in-service teachers develop systematic strategies and techniques for effectively leading students to cooperate with the teacher and each other, and to be on-task and engaged in planned learning activities. An internship in an elementary school is required. Prerequisite: Admission to Teacher Education.

**ELEM 455 (3-2-2) Teaching Mathematics in the Elementary School (K-6)**
A concentrated review of basic mathematics, mathematical concepts, and algorithms applicable to the elementary grades, with emphasis on content and activities related to various approaches and strategies for teaching mathematics in the elementary grades. Course requirements include an internship in an elementary school classroom. Prerequisite: Admission to Teacher Education.

**ELEM 456 (3-2-2) Teaching Science in the Elementary School (K-6)**
A review of scientific principles, laws, and concepts related to the natural sciences, as well as process-oriented inquiry methods appropriate to a child-centered environment. An internship is required. Prerequisite: Admission to Teacher Education.

**ELEM 471 (12-0-12) Elementary Teacher Internship**
An internship in the public schools providing prospective elementary education professionals with opportunities to observe professionals in the classroom, to plan and deliver instruction under supervision, to participate in professional development activities, and to engage in other activities expected of regular in-service teachers.

**ELEM 491 (2-0-2) Professional Seminar**
A series of seminars on selected teacher education topics, to include teaching strategies, knowledge, skills, abilities, and documentation needed for the initial teaching year, and preparation for the assessments required for North Carolina licensure. Co-requisite: Admission to elementary teacher internship.

**English (ENGL)**

**ENGL 108 (3-3-0) English Grammar and Usage**
This course is designed to provide students with awareness of and expertise in using the varieties and grammatical structures of present-day English, including standard varieties and actual varieties, with emphasis on written English. Placement in this course is based on profile scores. This course may serve as a University College restricted elective.

**ENGL 110 (3-3-0) English Composition I**
A course designed to give extensive practice in the writing process, with emphasis on expository forms appropriate to everyday personal, business, and academic writing.

**ENGL 120 (3-3-0) English Composition II**
A course that continues practice in the composing process, with emphasis on argumentation and research. The course involves gathering, analyzing, and documenting information from secondary sources. Prerequisite: ENGL 110.

**ENGL 211 (3-3-0) World Literature I**
A study of major works of the Ancient World, the Middle Ages, and the Renaissance, focusing on representative genres. Prerequisites: ENGL 110 and ENGL 120.

**ENGL 212 (3-3-0) World Literature II**
A comparative study of major works of the Enlightenment, the Romantic Age, the period of Realism and Naturalism, and the Modern World. Prerequisites: ENGL 110 and ENGL 120.
ENGL 220 (3-3-0) African-American Literature I
An historical and critical exploration of African American writers' contributions to American fiction, poetry, drama, and non-fiction, beginning with writers of the 1700s and continuing through 1900. Prerequisites: ENGL 110 and ENGL 120.

ENGL 223 (3-3-0) African-American Literature II
A continuation of an historical and critical exploration of African American writers' contributions to American fiction, poetry, drama, and non-fiction, beginning with the 1900s and proceeding to the present. Prerequisites: ENGL 110 and ENGL 120.

ENGL 222 (3-3-0) A History of the English Language
An historical study of the nature of the language from its beginnings to the present. Prerequisites: ENGL 110 and ENGL 120.

ENGL 230 (3-3-0) An Introduction to Linguistics
An introduction to the inductive method of studying language, exploring the phonological, morphological, and syntactical aspects of language, dialectical variations, graphemics, sound, spelling, linguistics changes, bilingualism, field linguistics, psycholinguistics, sociolinguistics, uses of linguistics, and related topics. Prerequisites: ENGL 110 and ENGL 120.

ENGL 231 (3-3-0) Advanced Grammar
A reinforcement of students' skills in grammatical analysis, focusing on the major theories of grammar and on the study of language acquisition in light of current research. Prerequisites: ENGL 110 and ENGL 120.

ENGL 240 (3-3-0) Introduction to Literature
An introduction to the major genres of literature, with intensive work in developing the critical skills of reading evaluating, and interpreting literary works and in writing critical papers about literature. Available as a humanities option to students not majoring in English. Requirement for B.A. English major. Prerequisites: ENGL 110 and ENGL 120.

ENGL 300 (3-3-0) Children's Literature
An introduction to works of children's literature from a variety of ethnic origins and genres including folklore, myths, epics, biographies, fiction, poetry, and informational books. Prerequisites: ENGL 110 and ENGL 120.

ENGL 301 (3-3-0) Adolescent Literature
A study of literature for and about the adolescent, examining reading programs and approaches to literature genres and modes characteristic of the literature, and essential elements of literary works for the adolescent. Prerequisites: ENGL 110 and ENGL 120 Course offered in the Spring Semester.

ENGL 302 (3-3-0) Introduction to Folklore
An introduction to the forms, aesthetic characteristics, and social contents of oral literatures and folk traditions, folktales, legends, myths, folksongs, proverbs, riddles, customs, and beliefs. Prerequisites: Any one of the following: ENGL 211, ENGL 223, or ENGL 240. Course offered as needed.

ENGL 310 (3-3-0) English Literature I
A survey of the literature of England from the Anglo-Saxon period through the eighteenth century. Requirement for English majors. Prerequisites: ENGL 223, or ENGL 240.

ENGL 312 (3-3-0) English Literature II
A continuation of the survey of English literature, extending from the Romantic period to the present. Requirement for English majors. Prerequisites: ENGL 223, or ENGL 240.

ENGL 320 (3-3-0) The Renaissance
A study of the prose and poetry of representative authors of the Renaissance, including dramatists other than Shakespeare. Prerequisite: ENGL 311. Elective offered as needed.

ENGL 321 (3-3-0) American Literature I
A survey of the major writers of America from the earliest efforts at colonization through the Civil War. Prerequisite: ENGL 223 or ENGL 240.

ENGL 322 (3-3-0) American Literature II
A survey of the major writers of America from the Civil War to the present. Requirement for English majors. Prerequisite ENGL 223 or ENGL 240.

ENGL 323 (3-3-0) Literature of the Bible
A literary overview of the Bible, with major emphases on the stylistic and formal influences of the Bible in world literature. Prerequisites: ENGL 110 and ENGL 120. Course offered as needed.

ENGL 330 (3-3-0) The Seventeenth Century
A survey of the metaphysical poets. Prerequisite ENGL 311. Course offered as needed.

ENGL 331 (3-3-0) American English Dialects
A study of dialectical variations in American English, emphasizing the reasons for historical, regional, and social variations in American English. Prerequisite: ENGL 231 or consent of the Chairman Department of English. Course offered as needed.

ENGL 340 (3-3-0) Short Prose Fiction
A study of representative modern British, American, and continental writers of the short story and the short novel, with emphasis upon the techniques of the genre. Course offered as needed.

ENGL 341 (3-3-0) Advanced Composition
A study of rhetorical strategies, sentence combining, editing, logic and persuasion, diction, usage, and research methods. Prerequisites: ENGL 110 and ENGL 120.
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<tr>
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<tr>
<td>ENGL 342</td>
<td>Creative Writing</td>
<td>An introduction to various forms of modern fiction and poetry, with opportunities for the creation of original poetry and fiction. Prerequisites: ENGL 110 and ENGL 120. Course offered as needed.</td>
</tr>
<tr>
<td>ENGL 350</td>
<td>Modern Poetry</td>
<td>A study of British and American poetry from Whitman, Dickinson, and Hardy to the present, with emphasis on the major poets of the twentieth century. Prerequisite: ENGL 223 or ENGL 240. Course offered as needed.</td>
</tr>
<tr>
<td>ENGL 360</td>
<td>Modern Drama</td>
<td>A survey of works of major playwrights from Ibsen and Strindberg to contemporaries such as Pinter and Stoppard. Prerequisite: ENGL 221 or ENGL 240. Course offered as needed.</td>
</tr>
<tr>
<td>ENGL 370</td>
<td>Junior Seminar</td>
<td>Directed study on special topics in English conducted by members of the department. Prerequisite: Junior standing. Course offered during Spring Semester.</td>
</tr>
<tr>
<td>ENGL 401</td>
<td>Chaucer</td>
<td>A course on The Canterbury Tales and on other works selected from the Chaucer canon, with consideration of literary, social, religious and philosophical backgrounds of the time. Prerequisite: ENGL 311. Course offered as needed.</td>
</tr>
<tr>
<td>ENGL 411</td>
<td>Shakespeare</td>
<td>A study of selected major Shakespearean dramas, including comedies, histories, and tragedies, and of Shakespeare’s development as a dramatist. Requirement for English majors. Prerequisite: ENGL 311. Course offered during Fall Semester.</td>
</tr>
<tr>
<td>ENGL 412</td>
<td>The Eighteenth Century</td>
<td>A survey of the major English writers from the Restoration - the age of Dryden, of Pope, and of Johnson to the beginning of Romanticism and a study of the rise of the English novel in the eighteenth century. Prerequisite: ENGL 311. Course offered during Fall Semester.</td>
</tr>
<tr>
<td>ENGL 431</td>
<td>The American Novel</td>
<td>A study of the development of the American novel to the 1970s, with emphasis on selected major writers. Prerequisites: ENGL 321 and ENGL 322.</td>
</tr>
<tr>
<td>ENGL 432</td>
<td>Romantic Poetry and Prose</td>
<td>A study of the major British Romantics, with an examination of representative works by Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats in their cultural and critical contexts. Prerequisite: ENGL 312. Course offered during Spring Semester.</td>
</tr>
<tr>
<td>ENGL 470</td>
<td>Senior Seminar</td>
<td>Directed study on special topics in English conducted by members of the Department. Prerequisite Senior standing. Requirement for all English majors. Course offered during Fall and Spring Semesters.</td>
</tr>
<tr>
<td>ENGL 480</td>
<td>Internship</td>
<td>Supervised practical experience in a professional setting. Prerequisite: Senior standing. Optional for those seeking the Bachelor of Arts degree.</td>
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**Finance (FINC)**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FINC 311</td>
<td>Principles of Finance</td>
<td>A course in basic financial management, including the study of the nature of financial management, financial analysis, working capital management, and long-term investment decisions. Prerequisites: ACCT 211, ECON 211 and ECON 212.</td>
</tr>
<tr>
<td>FINC 320</td>
<td>Financial Management</td>
<td>A continuation of FINC 311 emphasizing the use of analytical tools dealing with capital budgeting, capital structure, dividend policy, cost of capital with consideration of long-term financing, expansion, and problems of small businesses in connection with decision-making techniques. Prerequisite: FINC 311.</td>
</tr>
<tr>
<td>FINC 323</td>
<td>Money, Banking, and Monetary Policy</td>
<td>A formal examination of the role of money, banking, and financial institutions, as well as rudimentary discussion of monetary policy issues in the domestic and international economies. Prerequisite: ECON 211, ECON 212, and Math 123.</td>
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<tr>
<td>FINC 330</td>
<td>Personal Finance</td>
<td>A study of problems of money management, with special attention to credit borrowing, saving and funds allocation among stocks, bonds, insurance, property, and mutual investment companies.</td>
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<tr>
<td>FINC 340</td>
<td>Risk Management and Insurance</td>
<td>A focus on the identification, analysis, and measurement of potential losses and on the alternative methods of managing them, with risk management being treated broadly and insurance treated in depth as a method of risk transfer. Prerequisite: FINC 320.</td>
</tr>
<tr>
<td>FINC 350</td>
<td>Real Estate</td>
<td>A presentation of the fundamental economic aspects of real property, with special attention to the changing character of the urban economy and its effect on land values and land utilization.</td>
</tr>
<tr>
<td>FINC 354</td>
<td>International Trade and Finance</td>
<td>A survey of the theories of international trade, balance of payment, exchange rate determination, international portfolio investment (including currency swaps, options and futures) international financial management (global cost, budgeting, and capital flows) and related monetary issues. Prerequisite: ECON 211, ECON 212, and MATH 123.</td>
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FINC 410 (3-3-0) Investments
A survey of capital markets and theories; factors affecting corporate and other securities as portfolio choices; the organization of capital markets and the analysis and evaluation of securities. Prerequisite: FINC 320

FINC 411 (3-3-0) Fundamentals of Security Analysis I
This course provides an introduction to fixed income markets in the world. These markets include dealings in government, corporate debt instruments, mortgages, OTC (over-the-counter) and exchange traded securities. The course topics include: the description and analysis of fixed income instruments; term structure of interest rates theory; evaluation of fixed income securities; portfolio management; asset backed securities; dynamic investment strategies; and other topics of current relevance to these markets. Prerequisite: FINC 320.

FINC 412 (3-3-0) Fundamentals of Security Analysis II
This course is a continuation of FINC 411 and offers a systematic approach to Portfolio Management. The course topics include: portfolio construction; capital market theory and applied portfolio analysis; Arbitrage Pricing Theory (APT) and Multi-Index Model; security valuation models; equity investment models; management of portfolios; and evaluation of portfolio performance. Prerequisite: FINC 411.

FINC 420 (3-3-0) Commercial Bank Management
A study of the fundamental principles underlying the management of a commercial bank; capital funds; assets and liability management; value maximization; legal and operational constraints. Prerequisite: FINC 320.

FINC 430 (3-3-0) Seminar in Banking and Finance
Study and analysis of contemporary issues in Finance. Issues drawn from corporate finance, investments and financial markets and institutions. Prerequisites: FINC 320, FINC 410 and ECON 320.

FINC 431 (3-3-0) Options and Futures
This is an introductory course in financial futures and options. The course topics include: the description of futures, forward, and options markets; the determination of forward and future prices, interest rate and currency futures and swaps; properties of stock options; valuation of stock options with Binomial and Black-Scholes models; other types of options including stock index options, options on futures, and interest rate options; and hedging strategies using futures and options. Prerequisite: FINC 411

FINC 450 (3-3-0) Financial Markets
A course in macro-finance which focuses on financial markets and the financial institutions that serve them. Money and capital markets and their role in the savings—investment process are considered. Topics such as the market for loanable funds, flow-of-funds accounts, and securitization are covered. Prerequisite: FINC 323 (ECON 320).

FINC 453 (3-0-6) Economics and Finance Internship (ECON 450)(BADM 430)
A practical course enabling students to apply their theoretical knowledge of economics/finance to real situations and to gain practical experience in business, financial industry, and government institutions. Prerequisite: Consent of instructor.

FINC 460 (3-3-0) Current Problems of Banking
This course is intended to survey the current conditions of the Banking Industry. Topics as the Savings and Loan Association’s crisis and its implications; the role of government in managing a banking crisis; the effect of regulation and deregulation on financial intermediaries; the deposit insurance system; the mortgage market and the effect of mortgage securitization; the effect of interest rate, credit, foreign exchange, and liquidity risks on financial institutions. Other topics include capital and asset/liability management for successful performance. Prerequisite: FINC 420

French (FRENCH)

FREN 110 (3-3-0) Elementary French I
An introduction to the language, literature, and culture of French-speaking peoples, with emphasis on the basic language skills. Laboratory practice required.

FREN 111 (3-3-0) Elementary French (Honors)
An introduction to the language, literature, and culture of French-speaking peoples, with treatment in greater breadth and depth than in French 110. Laboratory practice required. Admission based upon an entrance examination, previous study, and other relevant experiences.

FREN 120 (3-3-0) Elementary French II
A continuation of studies in the language, literature, and culture of French-speaking peoples begun in FREN 110, including further development of the basic language skills, with special attention to improving oral language skills. Laboratory practice required. Prerequisite: FREN 110 or placement examination.

FREN 121 (3-3-0) Elementary French II (Honors)
A continuation of honors studies in the language, literature, and culture of French-speaking peoples begun in FREN 111, including further development of the basic language skills, with special emphasis on increasing proficiency in oral language skills. Laboratory practice required. Admission based upon an entrance examination, previous study, and other relevant experiences.

FREN 211 (3-3-0) Intermediate French I
Intermediate level studies of the language, literature, and culture of French-speaking peoples, including further development of the basic language skills, with increased emphasis on reading comprehension and writing in French.
Laboratory practice required. Prerequisite: FREN 120 or placement examination.

**FREN 212 (3-3-0) Intermediate French II**
A continuation of intermediate level studies of the language, literature, and culture of French-speaking peoples, including further development of the basic language skills, with special emphasis on idiomatic usages and complex grammatical structures. Laboratory experience required. Prerequisite: FREN 211 or placement examination.

**FREN 311 (3-3-0) French Conversation I**
A course focusing on increasing fluency in conversational French. Laboratory practice required. Prerequisite: FREN 212 or placement examination.

**FREN 312 (3-3-0) French Conversation and Composition**
A course focusing on developing the level of proficiency in the basic language skills necessary to complete advanced courses taught exclusively in French. Prerequisite: FREN 311 or placement examination.

**FREN 321 (3-3-0) French Civilization and Culture**
A study of the civilization, culture, and history of French-speaking peoples, with attention given to the life, customs, philosophy, art, music, and general patterns of culture. Taught exclusively in French. Prerequisite: FREN 212 or consent of instructor.

**FREN 322 (3-3-0) Survey of French Literature I**
A study of representative French literary works from earliest times to 1800. Taught exclusively in French. Prerequisite: FREN 321 or consent of instructor.

**FREN 331 (3-3-0) Survey of French Literature II**
A study of representative French literary works of the nineteenth and twentieth centuries. Taught exclusively in French. Prerequisite: FREN 321 or consent of instructor.

**Geography (GEOG)**

**GEOG 210 (3-3-0) Principles of Geography**
An introductory study of the physical and cultural elements of the surface of the earth, emphasizing the geographic relationships and surveying the interaction between human beings and their physical environment.

**GEOG 220 (3-3-0) World Regional Geography**
A geographical study of the world by realms or regions and of the basic relationship between the physical and cultural elements within the major realms of the world, with a detailed study of some selected regions.

**GEOG 230 (3-3-0) Computer Graphics I**
An introductory computer graphics course emphasizing the Low Resolution computer graphics utilized in geography.

**GEOG 240 (3-1-2) Computer Graphics II**
An introductory computer graphics course emphasizing the High Resolution computer graphics utilized in geography.

**GEOG 250 (3-1-2) Basic Map Reading**
An introductory map-reading course, with emphasis on map interpretation techniques and on the most commonly used types of maps and their interpretations.

**GEOG 260 (3-3-0) Population Geography**
A study of the patterns of population distribution on the surface of the earth, emphasizing patterns of population growth, density, and movement and alterations related to changes in selected socioeconomic and cultural phenomena.

**GEOG 300 (3-3-0) Medical Geography**
The geographic study of human ecology and health on the surface of the earth, with an analytical study of the world patterns of disease distribution and their cultural/environmental interactions, as well as alterations of disease patterns because of developments in various cultures.

**GEOG 310 (3-3-0) Economic Geography**
A geographic analysis of the distribution of economic activities on the surface of the earth, with emphasis on present-day patterns and trends of production, distribution, and utilization of the world’s major commodities.

**GEOG 311 (3-1-2) Cartography**
A study of principles and techniques of constructing maps and other graphic devices, emphasizing the construction of map projections and their uses, problems of scales, the interpretation of contour maps, lettering and sketching techniques, and graphic presentation of statistical materials.

**GEOG 312 (3-3-0) Advanced Cartography**
A study of advanced principles and techniques of map and graphic construction and interpretation.

**GEOG 313 (3-1-2) Aerial Photo Interpretation**
A study of the basic principles of aerial photographic mapping and the interpretation of aerial photos in terms of both physical and cultural/human geography, with emphasis on detecting and identifying the natural/physical and human/cultural elements of the geographic complex on the surface of the earth from the perspective of space.

**GEOG 314 (3-1-2) Introduction to Remote Sensing**
An introductory study of remote sensing, emphasizing its application to environmental and land use analyses of the earth.

**GEOG 316 (3-1-2) Computer Cartography**
An introduction to the cartographical uses of computers and computer graphics, with emphasis on applications of computer mapping to geographic phenomena and problems.
GEOG 317 (3-1-2) Computer Techniques in Geography
A course emphasizing computer usage and techniques applicable to studies of the geographical phenomena on the surface of the earth and to the study of geography as an academic subject.

GEOG 320 (3-3-0) Introduction to Geographic Information Systems
An introductory course covering the theory and application of Geographic Information Systems (GIS). This course includes an overview of general principles of GIS and practical experience in its use.

GEOG 321 (3-3-0) Geography of the Soviet Union
A study of the physical features, natural resources, population distribution, and human/cultural geography of the Soviet Union across time.

GEOG 322 (3-3-0) Geography of Latin America
A regional study of the physical environmental conditions, natural resources, economic development, and social and political conditions of Latin American countries.

GEOG 330 (3-3-0) Geography of Africa
A geographic study of the continent of Africa, with differentiating descriptions of its countries and regions, its distinctive character in comparison with other continents, and its current problems and developments.

GEOG 340 (3-3-0) Cultural Geography
An examination of human experience as it occurs in different natural settings, with analyses of symbolic and material elements of culture, focusing on those areas with landscape and environment manifestations and using specific case studies to determine how processes such as innovation, diffusion, and cultural change function.

GEOG 350 (3-3-0) Physical Geography
An examination of the physical systems and features of the earth, with emphasis on detailed analyses of systematic functions and interrelations of the geophysical processes of the earth’s physical/natural environment.

GEOG 360 (3-3-0) Climates
A study of world climatic patterns with emphasis on the classification and distribution of various types of climates on the surface of the earth and their influence on human beings.

GEOG 370 (3-3-0) Introduction to Meteorology
An introductory study of the atmospheric phenomena of weather, emphasizing analyses of the weather elements, weather production processes, and techniques of weather forecasting.

GEOG 400 (3-3-0) Introduction to City and Regional Planning
A study of the principles, concepts, and reality of city and regional planning from the past to the present, with emphasis on urbanization and planning, and on analyses of current urban problems and forces responsible for urban and regional growth.

GEOG 410 (3-3-0) Human Beings and the Environment
An examination of the interaction between human beings and the environment on the surface of the earth, with attention to specific types of ecosystem degradation and to solutions of resulting problems.

GEOG 411 (3-3-0) Industrial Geography
A study of manufacturing regions and major industries of leading industrial nations of the world, with attention to factors relating to the nature, location, and development of manufacturing industries.

GEOG 412 (3-3-0) Ecology
A geographic study of the ecological system of the earth and the relationship of earth’s organisms to their environment, with special attention to the effects of human activities on the ecosystem.

GEOG 420 (3-3-0) Conservation of Natural Resources
A study of conservation practices related to natural resources of the earth, emphasizing techniques for preserving the earth’s waters, soils, forests, grasslands, animals, and human resources.

GEOG 421 (3-3-0) Geography of the South
An analytical study of the physical, historical, economic, social and cultural environment of the present day southern United States, acquainting students with the geography of the South and with the distinctive and changing character of the South.

GEOG 430 (3-3-0) Geomorphology
An examination of the geomorphological processes and factors creating and affecting the development of the natural landscape of the earth.

GEOG 431 (3-3-0) Political Geography
A study of the geographical nature of political states, emphasizing their organization, power, and boundaries, and the geographic influences on their internal and external relations, with additional attention to concepts of geopolitics and associated contemporary problems.

GEOG 440 (3-3-0) Urban Geography
A geographical survey of the internal and external spatial relationships of cities and city systems, with special emphasis on patterns of growth, distribution, and functioning within and among cities in various parts of the world, particularly in the United States.

GEOG 480 (3-3-0) Seminar in Geography
Research in geographic thought and concepts and their practical applications, with emphasis on quantitative and empirical analyses of some specific problems of physical and cultural/human elements of the earth’s environment from perspectives of geographic research.
Geology (GEOL)

GEOL 311 (3-3-0) Introduction to Geology I
An introductory course in physical geology concerned principally with the composition of the earth’s crust and the processes that act to change its upper surface.

GEOL 312 (3-3-0) Introduction to Geology II
A continuation of GEOL 311, including studies of the active internal processes of the earth, such as plate tectonics and earthquakes, and of the earth’s interior composition and structure, with introductions to historical geology and the succession of life forms that formerly lived on the earth. Prerequisite GEOL 311.

German (GERM)

GERM 110 (3-3-0) Elementary German I
An introduction to the language, literature, and culture of German-speaking peoples, with emphasis on the basic language skills. Laboratory practice required.

GERM 120 (3-3-0) Elementary German II
A continuation of studies in the language, literature, and culture of German-speaking peoples begun in GERM 110, including further development of the basic language skills, with special attention to improving oral language skills. Laboratory practice required. Prerequisite: GERM 110 or placement examination.

GERM 211 (3-3-0) Intermediate German I
Intermediate level studies of the language, literature, and culture of German-speaking peoples, including further development of the basic language skills, with increased emphasis on reading comprehension and writing in German. Laboratory practice required. Prerequisite: GERM 120 or placement examination.

GERM 212 (3-3-0) Intermediate German II
A continuation of intermediate level studies of the language, literature, and culture of German-speaking peoples, including further development of the basic language skills, with special emphasis on idiomatic usages and complex grammatical structures. Laboratory experience required. Prerequisites: GERM 211 or placement examination.

GERM 310 (3-3-0) Advanced Conversation and Phonetics
A course focusing on developing the level of proficiency in the basic language skills necessary to complete advanced courses taught exclusively in German. Prerequisite: GERM 212 or placement examination.

GERM 321 (3-3-0) German Civilization
A study of the civilization, culture, and history of German-speaking peoples, with attention to the life, customs, philosophy, art, music, and general patterns of culture. Taught exclusively in German. Prerequisite GERM 310 or consent of instructor.

Health Education (HEED)

HEED 112 (2-2-0) Health and Wellness
An introduction to basic concepts of personal and community health, including sexuality, population planning, mental health, nutrition, fitness, health care delivery systems, and information relating to infectious and non-infectious diseases.

HEED 212 (3-3-0) Health Promotion and Wellness
An introduction to health concepts as they relate to the individual, family, and community. Designed to acquaint students with behaviors that promote health and reduce risks to diseases.

HEED 300 (3-3-0) Human Sexuality
A study of concepts and methods for sex education programs, including physiological, social and educational aspects of human sexuality, and emphasizing preparation for teaching about human sexuality in K-12 programs.

HEED 301 (3-3-0) Drug Education
An in-depth study of the use and abuse of legal and illegal drugs, alcohol and tobacco; the psychological and sociological factors associated with drug experimentation and abuse; and the psychosocial and physiological effects of drugs on health and behavior.

HEED 310 (3-3-0) Mental and Emotional Health
A study of the fundamental principles underlying emotional health, including human relationship, stress, social-learning adjustments, personality, and life styles.

HEED 311 (3-3-0) Environmental Health
A study of major areas of environmental health, including the health concerns, problems, and diseases arising from environmental pollutants.

HEED 320 (2-2-0) Methods and Materials of Teaching Physical Education and Health Education K-6
An introduction to the content, methods, and materials basic to the health and physical education of students K-6. Prerequisite: Admission to teacher education.

HEED 321 (3-3-0) Health in Early Childhood Education
An introduction to the principles, content, practices, and procedures basic to health education in early childhood, K-3.

HEED 322 (3-3-0) Health in the Intermediate Grades
An introduction to the principles, content, practices, and procedures basic to health education at the intermediate level.

HEED 340 (3-3-0) Organization and Administration of School/Community Health Education
A study of modern theories and guiding principles in the organization and administration of school-community health education.
education programs, including coverage of such topics as program planning, fiscal management, vital statistics, and laws pertaining to school-community health.

**HEED 372 (3-3-0) First Aid and Safety Education**
A study of the principles and practices of first aid and safety techniques, with emphasis on emergency procedures and safety-related agencies and their services. Also includes the teaching of first aid and safety K-12.

**HEED 401 (3-3-0) School Health Program**
A study of the roles of the classroom teacher, the school nurse-teacher, and other related personnel in the development and implementation of a total school health curriculum, including content, methods, and materials appropriate to elementary, intermediate, and secondary levels.

**HEED 410 (3-3-0) Introduction to Epidemiology**
The principles of epidemiology used in the investigation of each event, such as disease, accidents, and other health-related problems. These principles will be demonstrated by a class project of epidemiologic investigation. An in-depth study of major public health problems, with emphasis on the K-12 classroom teacher as the change agent for a healthier society through health education.

**HEED 411 (3-3-0) Public Health Problems**
An in-depth study of major public health problems, with emphasis on the K-12 classroom teacher as the change agent for a healthier society through health education.

**HEED 420 (3-3-0) Nutrition**
An introduction to the principles and concepts of nutrition, with emphasis on the importance of nutrition education for the development of healthy eating habits.

**HEED 421 (3-3-0) Methods and Materials in Teaching Health K-6**
An introduction to the content, principles, practices, and procedures in health education at the elementary level, with special focus on the role of the teacher in the elementary school health program.

**HEED 431 (3-3-0) Adapted Physical Education**
A study of principles and methods for adapting health and physical education programs to handicapping conditions. These principles and methods will be demonstrated by evaluations of physical, perceptual-motor and postural fitness levels, and the design, implementation, and evaluation of an active diversified adapted program. A 25 clock hour laboratory experience is required.

**HEED 441 (3-3-0) Measurement and Evaluation in Health Education**
An introduction of fundamental statistics for measuring and evaluating the effectiveness of health education and community health programs.

**History And Political Science (HIPO)**

**HIPO 300 (3-3-0) Contemporary African American Politics**
A study of selected issues related to African-Americans living in America, with emphasis on contemporary political organizations and activities of African-Americans.

**HIPO 310 (3-3-0) Political History of Contemporary China**
A study of political development in China from the Revolution of 1911 through the consolidation of power by Mao Tse-tung in the postwar period and continued through successive leaders to the present.

**HIPO 341 (3-3-0) Constitutional Law and History**
A study of basic principles of the constitutional system, with particular emphasis upon cases that deal with the framework of the American federal system. Prerequisite: POLI 210 or consent of the instructor.

**HIPO 342 (3-3-0) Civil Rights and the Constitution**
A study of constitutional principles and their applications as they affect individual civil rights. Prerequisite POLI 210 or consent of the instructor.

**HIPO 440 (3-3-0) Modern Ideologies**
A study of the principal modern political ideologies: capitalism, communism, fascism, and socialism.

**History (HIST)**

**HIST 100 (3-3-0) Social Institutions**
An historical survey of the development of the basic social institutions such as family, religion, politics, economics, the arts, and education presented as a case study of the African-American experience from past civilizations in Africa to contemporary American society.

**HIST 110 (3-3-0) World History to 1600**
An historical survey tracing the continuing development of civilizations in Asia, Europe, Africa, and the Americas from their beginnings to 1600, with attention to the governmental, social, religious, economic, political, intellectual, and aesthetic movements and activities that contributed to their development. Offered every semester.

**HIST 120 (3-3-0) World History since 1600**
An historical survey tracing the continuing development of civilization from the beginning of the seventeenth century to the present day, with attention to the governmental, social, religious, economic, political, intellectual, and aesthetic movements and activities that contributed to their development, with special consideration of the movements, ideologies, revolutions, and wars that helped to shape modern history. Offered every semester.

**HIST 210 (3-3-0) African-American History**
A study of African-American social, economic, cultural and political history, with emphasis on the contributions of
African-Americans to the social, cultural, economic, and intellectual life of American society and with attention to the role of African-Americans in the exploration, settlement, and development of America, the experience of slavery, and the struggle for civil rights. Offered every semester.

HIST 211 (3-3-0) The United States to 1865
A survey of American history from the colonial period through the Civil War. Offered every semester.

HIST 212 (3-3-0) The United States since 1865
A survey of American history from the era of Reconstruction to the present. Offered every semester.

HIST 270 (3-3-0) An Introduction to Africa
This course seeks to explore the distinguishing features of the peoples and topography of Africa. Moreover, efforts will be made to assay the interactions of these peoples with the outside world in a way that will reveal the truth about them rather than to recycle myths and prejudices.

HIST 301 (3-3-0) The Era of Civil War and Reconstruction
A study of the War Between the States, with an examination of the forces that led to the outbreak of the conflict between North and South, the ramifications of the Union victory, and the problems of reconstruction following the war. Prerequisites: HIST 211 and HIST 212 or consent of the instructor. Offered every other year.

HIST 302 (3-3-0) The Rise of Modern America, 1914 to the Present
A study of the United States as a modern industrial nation and as a world power, particularly since 1945. Prerequisites: HIST 211 and HIST 212 or consent of the instructor.

HIST 311 (3-3-0) Modern European History, 1648-1848
A survey of the political, economic, social, and cultural developments in Europe from the Treaty of Westphalia through the Revolutions of 1848. Prerequisites: HIST 110 and HIST 120 or consent of the instructor. Offered every fall.

HIST 312 (3-3-0) Modern European History, 1848-Present
A survey of European history covering the late nineteenth and twentieth centuries, including the political, economic, and intellectual movements, as well as the revolutions and wars, that contributed to the shaping of the new Europe. Prerequisite: HIST 311 or consent of the instructor. Offered every spring.

HIST 321 (3-3-0) American Social History
A study of the daily life, institutions, intellectual developments, and artistic achievements in America from the Agrarian Era, 1607-1861, through the Urban Industrial Era, 1861 to the present. Prerequisites: HIST 211 and HIST 212 or consent of the instructor.

HIST 322 (3-3-0) Ethnic Minorities in American Urban History
A study of the impact of urban life on the history of minority groups in the United States, with special emphasis on the relationships between the urban social order, the condition of minority groups since 1900, and the contributions of minority groups to the American city. Prerequisites: HIST 211 and HIST 212 or consent of the instructor.

HIST 323 (3-3-0) Oral History
A study of basic oral history techniques, including interviewing, transcribing, and writing a narrative based on the materials produced.

HIST 331 (3-3-0) History of Modern East Asia
A study of modern China from the decline of the Manchu Dynasty in the mid-nineteenth century through the events of Tienamnen Square, and of modern Japan from the Meiji Restoration through its post-World War II development as a leading industrial nation. Prerequisites: HIST 110 and HIST 120 or consent of the instructor.

HIST 340 (3-3-0) American Diplomatic History
A study of American diplomacy from the colonial period to the present, with emphasis on U.S. foreign relations in the twentieth century. Offered on request. Prerequisites: HIST 211 and HIST 212 or consent of the instructor.

HIST 350 (3-3-0) History of Latin America
A study of the political, economic, and social institutions and problems of contemporary Latin American nations. Prerequisites: HIST 110 and HIST 120 or consent of the instructor.

HIST 351 (3-3-0) Ancient History
A study of the origins, development, and contributions of the ancient Near Eastern, Greek, and Roman civilizations, through the fall of the Roman Empire. Prerequisites: HIST 110 and HIST 120 or consent of the instructor. Offered every third year.

HIST 352 (3-3-0) North Africa and the Middle East
A study of Islamic civilization and culture in areas of the southern and eastern rims of the Mediterranean Sea spanning the time period from the seventeenth century to the present day. Prerequisites: HIST 110 and HIST 120 or consent of the instructor. Offered every other year.

HIST 353 (3-3-0) History of Mexico
An introduction to the social, cultural, economic, and political history of Mexico, primarily since independence (1808), with a background on the colonial and Pre-Columbian periods.

HIST 362 (3-3-0) The American Military Experience
The evolution of the American military profession from colonial times to the post-World War II era, with attention to such topics as American military concepts, strategies, tactics, doctrines, and technology, and the influence of military experience on American society. Prerequisites: HIST
HIST 307 (3-3-0) Africa South of the Sahara
A study of ancient, medieval, colonial, and modern civilizations and nations in sub-Saharan Africa, with attention to issues relating to African heritage and to the rise of contemporary African nations and cultures. Prerequisites: HIST 110 and HIST 120 or consent of the instructor.

HIST 370 (3-3-0) Africa South of the Sahara
A study of the political, economic, and strategic interests of the Great Powers in colonies and former colonial possessions during the nineteenth and twentieth centuries. Prerequisites: HIST 311 and HIST 312 or consent of the instructor.

HIST 431 (3-3-0) Russia to 1917
A study of the collapse of the empire in the Revolution of 191. Prerequisites: HIST 311 and HIST 312 or consent of the instructor.

HIST 432 (3-3-0) History of the Soviet Union
A study of the Soviet system and Soviet foreign policy from the Revolution of 1917 through its collapse in 1989. Prerequisites: HIST 311 and HIST 312 or consent of the instructor.

HIST 441 (3-3-0) History of England
A study of the development of modern England from the English Revolution to the present, with emphasis on the rise and fall of the British empire and the evolution of the Parliamentary system. Prerequisites: HIST 311 and HIST 312 or consent of the instructor.

HIST 442 (3-3-0) History of Modern Germany
A study of German history through five periods: before unification (1815-1870), under Bismarck, under Wilhelm II, between the wars, and since 1945. Prerequisites: HIST 311 and HIST 312 or consent of the instructor.

HIST 451 (3-3-0) The French Revolution and Napoleon
A study of the collapse of the Ancient Regime, including an examination of the causes and effects of its demise; Napoleon’s attempt to establish a new order in Europe under French hegemony; the Congress of Vienna. Prerequisite: HIST 311 or consent of the instructor.

HIST 460 (3-3-0) Problems in American History
A study of selected issues in American history. Prerequisites: HIST 211 and HIST 212 or consent of the instructor.

HIST 470 (3-3-0) Colonialism and Neo-Colonialism
A study of the political, economic, and strategic interests of the Great Powers in colonies and former colonial possessions during the nineteenth and twentieth centuries. Prerequisites: HIST 311, HIST 312, and HIST 331 or HIST 370 or consent of the instructor.

HIST 480 (3-3-0) Problems in European History
A study of selected problems and issues in the history of Europe. Prerequisites: HIST 311 and HIST 312 or consent of the instructor.

HIST 490 (3-3-0) Senior Seminar: Selected Topics
In-depth studies in selected areas of special interest, with supervised research and directed readings required. (For History or Social Science majors and minors.) Prerequisite senior standing or consent of the instructor. Offered each fall.

HIST 491 (3-3-0) Methods of Historical Research
An introduction to conventional methods of historical research and to new techniques in oral history, family history, and quantitative history. For History or Social Science majors and minors.
Humanities (HUMN)

HUMN 211 (3-3-0) Humanities: Music, Art, and Ideas I
An interdisciplinary survey course examining works of art, literature, music, philosophy, and religious thought, focusing on major stylistic developments and intellectual movements and cultural achievements of the ancient and medieval eras in Europe, the Middle East, and Africa. Completion of HUMN 211 is recommended before enrollment in HUMN 212.

HUMN 212 (3-3-0) Humanities: Music, Art, and Ideas II
The second part of an interdisciplinary survey course examining works of art, literature, music, philosophy, religious thought, and focusing on major stylistic developments and intellectual movements from the Renaissance to the present day. Completion of HUMN 211 is recommended before enrollment in HUMN 212.

Mathematics (MATH)

MATH 120 (3-3-0) Finite Mathematics
An introduction to mathematical sets, logic, probability, statistics, and the metric system.

MATH 121 (3-3-0) Introduction to College Algebra
A study of equations, inequalities, functions, graphs, and matrices.

MATH 123 (3-3-0) College Algebra
An algebra course containing the following topics: sets, the real number system, exponents, radicals, polynomials, equations, inequalities, relations and functions, graphing, conic sections, exponential and logarithmic functions, systems of equations, complex numbers, mathematical induction, and the binomial theorem. Prerequisites: High School Algebra I, II, and Plane Geometry or equivalent, and satisfactory placement score. A graphing calculator is required.

MATH 124 (3-3-0) College Trigonometry
A trigonometry course containing the following topics: trigonometric functions defined on angles, circular functions, graphs, inverse trigonometric functions, identities, trigonometric equations, law of cosines, law of sines, and complex numbers. Prerequisites: High School Algebra I, II and Plane Geometry, or MATH 123 or equivalent, and satisfactory placement score. A graphing calculator is required.

MATH 129 (3-3-0) Precalculus Mathematics I
This course is the first of a two-semester sequence that provides a background for students who are preparing to take calculus. Topics include sets, the real number system, exponents, radicals, polynomials, equations, inequalities, functions, relations, graphing, conic sections, rational, exponential and logarithmic functions. Prerequisites: High School Algebra I, II, and Plane Geometry or equivalent, and satisfactory profile examination score. A graphing calculator is required.

MATH 130 (3-3-0) Precalculus Mathematics II
This course is the second of a two-semester sequence that provides the background for students who are preparing to take calculus. Topics include graphing, systems of equations, matrices, complex numbers, mathematical induction, the binomial theorem, sequences and series, polar coordinates, parametric equations, trigonometric functions, inverse trigonometric functions, law of sines, law of cosines, and trigonometric identities. Prerequisites: MATH 129 or equivalent or consent of department. A graphing calculator is required.

MATH 131 (3-3-0) Algebra and Trigonometry
An in-depth study of the topics covered in MATH 129 and MATH 130. A graphing calculator is required.

MATH 140 (4-4-0) Applied Calculus
A course in calculus applicable to business and the social sciences incorporating a review of college algebra and studies of linear equations, functions and their limits, derivations, applications of the derivatives, exponential and logarithmic functions, antiderivatives, definite integrals and applications, and numerical techniques and applications. Prerequisites: MATH 123 or MATH 131. Designed mainly for business and social science majors.

MATH 142 (4-4-0) Calculus with Analytic Geometry I
The first course of a three-semester sequence in calculus with analytic geometry, including studies of graphs, functions, limits, differentiation, applications of differentiation, integration, and applications of the definite integral. Prerequisite: MATH 129 and 130 or MATH 131. A graphing calculator is required.

MATH 150 (3-3-0) Discrete Mathematics I
The first course of a two-semester sequence in discrete mathematics, providing the theoretical base and support for computer science and including operations on sets, Cartesian products and tuples, combinatorial objects, Venn diagrams, event spaces and basic probability, number systems, the statement calculus, rules of inference and validity of arguments, inductive proofs, the concept of an algorithm, equivalence relations, partial ordering relations, graphs and digraphs as relations, including trees and shortest paths in digraphs, basic definitions and notations of functions, recurrences for the analysis of algorithms, semigroup and Abelian group, matrix operations, invertibility, and solutions of systems of linear equations. Prerequisite: MATH 129 and 130 or MATH 131.

MATH 241 (4-4-0) Calculus with Analytic Geometry II
The second course of a three-semester sequence in calculus with analytic geometry, including studies of differentiation and integration of exponential, logarithmic, inverse, trigonometric and hyperbolic functions; techniques of integration, improper integrals, infinite series, and analytic geometry. Prerequisite: MATH 142.

MATH 242 (4-4-0) Calculus with Analytic Geometry III
The third course of a three-semester sequence in calculus with analytic geometry, including studies of vectors, vector-
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>MATH 250 (3-3-0)</td>
<td>Discrete Mathematics II</td>
<td>MATH 150, including qualification and further rules of inference; formal and informal proofs, machine proofs, with attention to unification and the resolution principle, algebra of sets as an axiomatic theory, the equivalence relation as a partitioning device, further applications of graphs and digraphs, inverses and composition of functions, recursive functions and inductive proofs, group codes as an application of group theory, lattices and Boolean algebra, and models of Boolean algebra. Prerequisite: MATH 150.</td>
</tr>
<tr>
<td>MATH 251 (3-3-0)</td>
<td>Linear Algebra</td>
<td>A course in linear algebra including such topics as systems of equations, matrix theory, vector spaces, bases and linear transformations. Prerequisite: MATH 130 or MATH 131 or consent of the department.</td>
</tr>
<tr>
<td>MATH 260 (3-3-0)</td>
<td>Foundations of Mathematics</td>
<td>A rigorous study of axiomatic set theory, including the following elements: logic, sets, operations on sets, ordinal numbers, induction, cardinal numbers, cardinal arithmetic, and the Axiom of Choice. Prerequisite: MATH 142 and MATH 150.</td>
</tr>
<tr>
<td>MATH 262 (3-3-0)</td>
<td>Modern Geometry</td>
<td>A course in modern geometry including studies of incidence geometry in planes and space, distance and congruence, separation in planes and space, angular measure, congruences between triangles, similarities between triangles, and parallel postulates. Prerequisites: MATH 123 and MATH 124, or MATH 131 or MATH 129 and MATH 130.</td>
</tr>
<tr>
<td>MATH 312 (3-3-0)</td>
<td>History of Mathematics</td>
<td>A survey of mathematics incorporating biographical accounts of persons who have contributed significantly to the development of mathematics, descriptions of their achievements, and discussions of other major topics of interest in mathematics. Prerequisite: MATH 142.</td>
</tr>
<tr>
<td>MATH 331 (3-3-0)</td>
<td>Differential Equations I</td>
<td>The first course of a two-semester sequence in differential equations, emphasizing applications to science and engineering and including the following topics: first order differential equations, second order linear differential equations, partial differential equations, higher order linear equations, the Laplace Transform, and series solutions of second order linear equations. Prerequisites: MATH 241.</td>
</tr>
<tr>
<td>MATH 332 (3-3-0)</td>
<td>Differential Equations II</td>
<td>A continuation of MATH 331, including the following topics: numerical methods, nonlinear differential equations and stability, the Fourier Series, boundary value problems and the Sturm-Liouville Theory, system of linear differential equations, and the existence theory. Prerequisite: MATH 331.</td>
</tr>
<tr>
<td>MATH 340 (1-6-0)</td>
<td>Topics in Mathematics</td>
<td>A study of major topics of current interest in mathematics not covered in existing courses. Prerequisite: consent of department.</td>
</tr>
<tr>
<td>MATH 361 (3-3-0)</td>
<td>Introduction to Modern Algebra I</td>
<td>The first course of a two-semester sequence introducing fundamental concepts and proof techniques used in abstract algebra and including studies of groups, normal subgroups, quotient groups, homomorphisms, rings, ideals, quotient rings, integral domains, fields, vector spaces, linear transformations, and related topics. Prerequisite: MATH 251 and MATH 260.</td>
</tr>
<tr>
<td>MATH 362 (3-3-0)</td>
<td>Introduction to Modern Algebra II</td>
<td>A continuation of MATH 361 presenting a deeper and more extended study of groups, rings, finitely generated Abelian groups, extension fields, the introductory Galois theory, and related topics. Prerequisite: MATH 361.</td>
</tr>
<tr>
<td>MATH 372 (3-3-0)</td>
<td>Linear Programming</td>
<td>A course examining diagnostic teaching in the context of a general approach to mathematics instruction, with emphasis on strengthening students’ knowledge of mathematics and instructional psychology. Prerequisite: consent of the department.</td>
</tr>
<tr>
<td>MATH 400 (3-3-0)</td>
<td>Diagnostic and Prescriptive Mathematics</td>
<td>A course in modern geometry including studies of incidence geometry in planes and space, distance and congruence, separation in planes and space, angular measure, congruences between triangles, similarities between triangles, and parallel postulates. Prerequisites: MATH 123 and MATH 124, or MATH 131 or MATH 129 and MATH 130.</td>
</tr>
<tr>
<td>MATH 412 (3-3-0)</td>
<td>Advanced Calculus</td>
<td>A comprehensive and rigorous study of the concepts of limit, continuity, topology on the real line, properties of continuous functions, Mean Value Theorem and Taylor’s Formula, and calculus of several variables. Prerequisites: MATH 242 and MATH 260.</td>
</tr>
<tr>
<td>MATH 432 (2-6-0)</td>
<td>Reading and Honors in Mathematics</td>
<td>A course examining diagnostic teaching in the context of a general approach to mathematics instruction, with emphasis on strengthening students’ knowledge of mathematics and instructional psychology. Prerequisite: consent of the department.</td>
</tr>
<tr>
<td>MATH 433 (1-6-0)</td>
<td>Mathematical Concepts for Intermediate School Teachers</td>
<td>A course in modern geometry including studies of incidence geometry in planes and space, distance and congruence, separation in planes and space, angular measure, congruences between triangles, similarities between triangles, and parallel postulates. Prerequisites: MATH 123 and MATH 124, or MATH 131 or MATH 129 and MATH 130.</td>
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MATH 450 (3-3-0) *Selected Topics in Mathematics*
Advanced study of major topics in mathematics from such fields as topology, advanced calculus, complex analysis, or modern algebra. Course may be repeated for credit with approval of department.

MATH 461 (3-3-0) *Theory of Real Variables*
A study of the theory of real variables, incorporating a rigorous treatment of limits, functions, continuity, differentiability, and infinite series, and introducing the Riemann-Stieltjes integral and Lebesque integral. Prerequisite: MATH 412.

MATH 472 (3-3-0) *Theory of Numbers*
A study of the elementary properties of integers, invisibility, Euclid’s Algorithm, prime numbers, and congruences. Prerequisite: Junior standing in mathematics.

MATH 481 (3-3-0) *Introduction to Topology*
A study of topics in the field of point set topology, including general topological spaces, metric spaces, and various topological properties. Prerequisite: MATH 412.

MATH 492 (3-3-0) *Complex Variables*
A rigorous study of elementary functions, differentiation and integration of analytic functions, Taylor and McLaurin series, Residue Theorem, and contour integration. Prerequisite: MATH 412 or MATH 461.

Medical Technology (MEDI)

MEDI 200 (2-2-0) *Medical Terminology*
A comprehensive study of the language of medicine, including the use of the terms in the various areas of medical science. Prerequisites: One year of college level science and permission of instructor.

MEDI 451* (3-2-2) *Clinical Microscopy*
A study of techniques used in the chemical and microscopic evaluation of urine.

MEDI 452* (3-2-2) *Serology*
A practical study of serological diagnostic tests.

MEDI 460* (6-1-5) *Hematology*
A clinical laboratory evaluation of the normal and pathologic morphology of blood and blood forming organs.

MEDI 462* (4-3-3) *Blood Bank*
A study of basic principles of blood coagulation, with laboratory practice in type and cross-matching of blood.

MEDI 470* (8-3-5) *Microbiology*
An examination of the morphology and physiology of bacteria, fungi and parasites, including a study of defense mechanisms and the preparation of culture media and techniques for identification.

MEDI 472* (8-3-5) *Clinical Chemistry*
A study in the diagnostic analysis of blood and other body fluids.

*Offered and taught at hospital-based and NAACLS and AMA accredited Schools of Medical Technology. Successful completion of pre-clinical studies and admission to the clinical phase are required to register for these courses.

Management (MGMT)

MGMT 311 (3-3-0) *Principles of Management*
A study of the theory and process of management principles and basic organization behavior. Emphasizes major managerial functions such as planning, organizing, leading, and controlling as well as on the role of the manager in a changing environment. Explains also the ethical issues, managerial decision making, leadership behaviors, managing diverse workforce and an introduction to international management. Prerequisite: BADM 214, BADM 215, ECON 211, ECON 212, A C T 211.

MGMT 325 (3-3-0) *Quantitative Methods for Business*
This course provides an introduction to management science topics and modeling in the decision making process. It covers the quantitative tools for managerial decision making and focuses on areas such as linear programming, inventory control, PERT/CPM, simulation, decision analysis, queuing theory. Computer software used for solving these problems. Prerequisite: BADM 216 and MGMT 311.

MGMT 335 (3-3-0) *Operations Management*
An introduction to the process of producing goods and services, with class work oriented toward the analysis and solution of practical problems using quantitative techniques and spreadsheet models. The focus will be on areas, such as, product and production design, scheduling, aggregate planning, inventory management, forecasting, plant location, technology management, supply chain management, material requirement planning, project management, quality assurance and international management issues. Prerequisite: BADM 216 and MGMT 311.

MGMT 350 (3-3-0) *Entrepreneurship*
A study of the creation, growth, or acquisition of business through entrepreneurial efforts, the nature of entrepreneurship process, and organization of growth oriented acquisitions. Prerequisite: MGMT 311, FINC 311, MKTG 311.

MGMT 410 (3-3-0) *Human Resource Management*
A study of personnel administration, including the objectives, organization, functions and role of personnel management in the operation of business enterprises, with attention to key problems in the area of employee selection, hiring, and placement; training; wage and salary administration; promotion, transfer, and separation; personnel services; and labor relations. Prerequisite: MGMT 311.
**MGMT 420 (3-3-0) Organizational Behavior**

The study of human behavior at the individual, group and organizational level including discussion and case studies related to motivation, perception, job design, group behavior, communication, interpersonal conflict, ethics, performance, motivation, and leadership. Prerequisite: MGMT 311.

**MGMT 421 (3-3-0) Quality Management**

Quality has become the responsibility of everyone and has been applied by manufacturer and services alike to achieve competitive advantage. This course examines the concept of quality and develops skills in the use of quality tools. Primary focus will be on the management of quality by all the disciplines in an integrated manner within the organization, statistical quality control, total quality management, international quality standards, Japanese concepts of quality, and related topics. Prerequisite: BADM 216, MGMT 311.

**MGMT 425 (3-3-0) International Business Management**

A survey of the theoretical and institutional complexities of international business operations, with emphasis on the special knowledge and skills essential to personnel engaged in the planning and administration of business enterprises and governmental organizations with overseas relationships. Prerequisite: FINC 311, MGMT 311, MKTG 311.

**MGMT 435 (3-3-0) Group and Interpersonal Dynamics**

This course is conducted in a learning group setting where students experience first hand the dynamics that occur in a task-oriented group while reading and learning about the theory of group development. This course should be taken concurrently with Mgmt 470 Strategic Management or MIS 330 Systems Analysis or another course where the student is involved in a team project. The class will explore key issues that underlie group life such as inclusion, influence and intimacy. Leadership and how it emerges within the group will be a key aspect of the learning. The course also includes self assessment exercises and feedback from the group that increases students' awareness of their own styles in interacting with others, including influence style, conflict management, decision making style, communicating and listening styles. Prerequisite: MGMT 311.

**MGMT 450 (3-3-0) Small Business Management**

The process of managing a small business including planning, marketing, production, finance, organization, personnel, and pragmatic issues in real situations. Prerequisite: FINC 311, MGMT 311, MKTG 311.

**MGMT 470 (3-3-0) Strategic Management**

A capstone course focusing on the theoretical and practical knowledge acquired in previous undergraduate business administration courses. Text and lecture will cover external and internal environmental analysis, business and corporate level strategy, industry analysis, functional strategy, implementation, control, and global business. Case analysis and presentation will combine and enhance learning acquired from readings and Internet searches. Prerequisites: MGMT 311, FINC 311, MKTG 311.

**Management Information Systems (MIS)**

**MIS 300 (3-3-0) Information Systems Theory and Practice**

This course provides an understanding of systems and development concepts, information technology, and application software. It explains how information is used in organizations and how information technology enables improvement in quality, timeliness, and competitive advantage. The course focuses on topics such as strategic information systems, organization and information, ethical, social and cultural issues, principles of databases, data warehousing, data mining, different types of software, systems analysis, techniques and goals for data processing, and information retrieval. It also covers the requirements of new businesses in terms of information technology and transnational firms. Prerequisite: BA DM 214 or CSC 100.

**MIS 320 (3-3-0) Database Management Systems**

This course covers information systems design and implementation within a database management system environment. Students will construct a physical system using database software to implement the logical design. Different available software will be discussed. Prerequisite: MGMT 311 and MIS 320.

**MIS 330 (3-3-0) System Analysis and Design**

This course provides an understanding of the system development and modification process. It enables students to evaluate and select a system development methodology based on business strategic goals. Computer tools will be used in construction of the systems. Prerequisite: MGMT 311 and MIS 320.

**MIS 420 (3-3-0) Management Support Systems**

This course provides an understanding of the concepts of decision making under unstructured and semi-structured situations. It describes the components of a MSS and an executive information system, including the data subsystem, model base, knowledge management, and user interface and network concepts. Students learn the procedure for designing a decision support system. A variety of computer tools will be used to demonstrate the applications. Prerequisite: MIS 320 and MGMT 325.

**MIS 430 (3-3-0) Data Communication and Networking**

This course provides an understanding of data communications and networking, including networking and telecommunication technologies, hardware, and software. Special emphasis is placed on the analysis, design, and management of networking applications in organizations. Prerequisite: MIS 300.

**MIS 440 (3-3-0) New Topics in Management Information Systems**

This course covers recent advances in the area of management information systems. Emphasis will be placed
Marketing (MKTG)

MKTG 311 (3-3-0) Principles of Marketing
A study of the principles of marketing; current practices and structures of the market; analyses of marketing functions, institutions, costs, and marketing legislation. Prerequisite: Lower division core.

MKTG 322 (3-3-0) Advertising
A study of the principles of advertising, advertising media, and special problems of small business concerns, including appropriations and planning related to the development of advertising and the economic significance of advertising to both the consumer and the advertiser. Prerequisite: MKTG 311.

MKTG 330 (3-3-0) Retailing
A survey of retailing and its role in distribution, focusing on problems of administrative organization, store location, layout, buying, pricing, merchandising, sales promotions, and current trends in retailing. Prerequisite: MKTG 311.

MKTG 331 (3-3-0) Consumer Behavior
A survey of the theories of consumer behavior, with contributions from the social sciences and their applications to the marketing discipline. Prerequisite: MKTG 311.

MKTG 410 (3-3-0) Marketing Management
A study of the organization and coordination of the total marketing program; sales, advertising, credit, marketing and consumer research; materials management; planning and policy determination, including distribution policies, cost analyses, pricing, sales forecasting and demand analyses, governmental regulations affecting marketing, and adjustment to competitive trends, changing trends, and changing market conditions. Prerequisite: MKTG 311.

MKTG 412 (3-3-0) Sales Management
A study of the functions of a sales department within the marketing organization, including the recruiting, selecting, training, motivating, supervising, compensating, and evaluating sales personnel. Prerequisite: MKTG 311.

MKTG 421 (3-3-0) International Marketing
A survey of the structure, techniques, problems, and general environment of marketing abroad, including the organization, promotion, financing, legal aspects, and operations of the multinational corporation. Prerequisite: MKTG 311.

MKTG 460 (3-3-0) Marketing Research
The application of scientific methods of obtaining information to structuring marketing policies and techniques, with emphasis on the role of research in the solution of marketing problems. Prerequisites: BADM 312 and MKTG 311.

MKTG 490 (3-3-0) Seminar in Marketing
A capstone course for seniors in marketing, with course content and activities centering on special topics that may include management or marketing activities, special research topics, or other marketing issues relevant to the business environment. Prerequisite: Senior standing in Marketing.

Military Science (MSCI)

MSCI 101 (1-1-1) Military Organizations
Introduction of time management for students transitioning to college. An orientation to the U. S. Army concentrating on the historical development of ROTC and related customs, courtesies, and traditions of uniformed service. Fall.

MSCI 102 (1-1-1) Basic Leadership and Management
An introductory course in leadership and management using case and situational studies to emphasize individual and group needs, group dynamics, and the decision making process. Spring.

MSCI 201 (3-2-1) Studies in Decision Making
A study in progressive leadership concentrating on leadership models, personality, and perceptual process. Contemporary and historical leadership problems (case studies) are analyzed from a leader's perspective. Fall.

MSCI 202 (3-2-1) Land Navigation and Tactics
An introductory course in land navigation and rifle squad organization, capabilities, and tactics. Spring.

MSCI 221 (3) Basic Military Leadership
An introductory course in leadership and military skills to satisfy basic course prerequisites for enrollment into the Advanced Course. Six (6) week summer program at Fort Knox, KY for cadets from universities and colleges throughout the entire nation. Summer.

MSCI 301 (3-3-1) Unit Level Command Responsibilities
A study in leadership from the perspective of the Second Lieutenant, concentrating on the coordination and execution of administrative and tactical command decisions. Laboratory periods concentrate on leadership development, physical training, and selected presentations. Fall.

MSCI 302 (3-3-2) Terrain Analysis
An integrated course of academics and military skills combining advanced land navigation with squad-level tactics. Laboratory periods concentrate on leadership development, physical training, and selected presentations. Spring.

MSCI 321 (3) Applied Military Leadership
An intensive practical application of leadership and military skills for Advanced Course students. Five-week summer program conducted at Fort Lewis, Washington for
all Advanced Course cadets from colleges and universities throughout the United States. Summer.

MSCI 401 (3-3-1) Basic Officer Course Preparation (3)  
(Offered at Methodist College)  
Studies in military subjects which will prepare an individual for those duties and responsibilities of a newly commissioned officer. These subjects include Military Leadership, Small Unit Administration, Human Self-Development, Leadership Aspects of Contemporary Issues, Unit Readiness, Company Administration, Effective Written Communications, Awards and Decorations, and Fundamentals of Management.  Fall.

MSCI 402 (3-3-2) Advanced Leadership and Management (Offered at Methodist College)  
Studies in Military Staff organization and procedures to include topics essential to newly commissioned officers. These subjects are: Customs and Traditions of the Service, Ethics and Professionalism, Written and Oral Communications, Personnel and Training Management, Military Justice, Law of War, International Law, U.S. Army Logistics, Maintenance Management, and Soviet Army Indoctrination. Students prepare and present military science instruction to military science classes.  Spring.

MSCI 421 (3-3-0) The American Military Experience  
(Offered at Methodist College)  
A survey of American Military History concentrating on the major factors and events which have influenced US foreign policy during periods of war and peace. Fall. Prerequisite Completion of MSCI 301 or MSCI 302.

Music (MUSI)

MUSI 100 (1-2-0) Basic Musicianship  
A study of the rudiments of music, including basic rhythmic and pitch notation; major and minor scales, intervals, primary triads, and rhythmic drills; sight singing and ear training activities, as well as keyboard and computer applications of concepts studied.

MUSI 102 (1-0-2) Class Piano I  
A class piano course giving the non-piano major a basic understanding of keyboard harmony and technique, with the first year of instruction devoted to becoming familiar with the five-finger major hand positions, memorizing several short compositions, sight reading, and combining staccato and legato playing.

MUSI 110 (1-0-5) Choir  
A course focusing on selections from all periods and styles of music including pop, spiritual, and gospel music, with a study of vocal techniques, choral diction, and performance styles and practice. Includes choral performances at various University and community activities, with tours planned to many areas in North Carolina and other states. Open to all students who enjoy singing.

MUSI 120 (1-0-2) Brass Ensemble  
A course in the performance of small ensemble compositions written for various combinations of brass and wind instruments. Open to all students following audition and permission of instructor.

MUSI 130 (1-0-2) Woodwind Ensemble  
A course in the performance of small ensemble compositions written for various combinations of woodwind instruments. Open to all students following audition and permission of instructor.

MUSI 140 (1-0-2) Jazz Ensemble  
A major performing organization of the university, with practice including instruction in improvisation and arranging, and with repertoire varied to include a wide array of music from jazz to fusion and popular styles. Open to all students following audition and permission of instructor.

MUSI 150 (1-2-0) Opera Workshop  
Study and performance of scenes, acts and/or operas from both the standard repertoire and operas of primarily historical interest. Open to all students. Audition and permission of instructor.

MUSI 152 (3-3-2) Harmony, Sight Singing, and Ear Training I  
A study of the basic elements of harmony: primary and secondary triads in root position and all inversions; seventh chords; major, minor, and chromatic scales; introduction to part-writing procedures; rhythmic drills, sight singing and ear training activities; keyboard and computer applications of concepts studied. Prerequisite: satisfactory performance on music theory placement examination or completion of MUSI 100.

MUSI 160 (1-0-2) String Ensemble  
A course in the performance of small ensemble compositions written for various combinations of string instruments. Open to all students following audition and permission of instructor.

MUSI 167 (1-0-1) Applied Brass  
A sequence of courses focusing on diagnoses and recommendations for proper brass/wind playing habits, with emphasis on embouchure development, tonal studies, scales, and arpeggios. Minimum of five hours practice per week required. Freshman year sequence.

MUSI 169 (1-0-1) Applied Organ  
A sequenced study of organ manual and pedal techniques, with practice works including easy preludes and Sanctus, studies by Gelason, Nilsen, etc.; Bach Little Preludes and Fugues; hymn playing and service playing. Freshman year sequence.
MUSI 171 (1-0-1) Applied Piano
MUSI 172
A first-year sequence of courses in piano devoted to acquiring a firm technical foundation through the use of various drills and exercises, with beginning repertoire including pieces on the level of Clementi Sonatinas, Op. 36; the Notebook for Anna Magdalena Bach; or the easier Bach Two-part Inventions; and major and minor scales in contrary and parallel motion. Freshman year sequence.

MUSI 173 (1-0-1) Applied Percussion
MUSI 174
A sequence of courses focusing on diagnoses and recommendations for proper playing habits for mallet percussion instruments. Freshman year sequence.

MUSI 175 (1-0-1) Applied Strings
MUSI 176
A sequence of courses featuring diagnoses and recommendations for proper string playing habits, with practice emphasis on bowing and fingering methods, positions, scales, arpeggios, tone, and vibrato. Freshman year sequence.

MUSI 177 (1-0-1) Applied Voice
MUSI 178
A sequence of courses in voice focusing on the study of vowels and the fundamentals of tone production, on correct breathing and posture, and on the singing of vocalists and early secular and sacred songs. Freshman year sequence.

MUSI 179 (1-0-1) Applied Woodwinds
MUSI 180
A sequence of courses focusing on diagnoses and recommendations for proper woodwind playing habits, with emphasis on embouchure development, tonal studies, scales, and arpeggios. Freshman year sequence.

MUSI 191 (1-0-5) Marching Band
MUSI 192
A major performing organization of the university, playing in parades, at miscellaneous events, and at football games both at home and in other states. Open to all students following audition and permission of instructor.

MUSI 192 (1-0-5) Concert Band
MUSI 193
A major performing organization of the university, playing varied styles and genres of music in concerts, both locally and in other cities. Open to all students following audition and permission of instructor.

MUSI 201 (1-0-2) Class Piano II
MUSI 202
A continuation of MUSI 102. Prerequisite MUSI 102.

MUSI 202 (1-0-2) Class Piano III
MUSI 203
A study of primary chords in all keys; the major and harmonic minor scales and major and minor arpeggios in two octaves; four-part choral textures; and sight reading using chord symbols. Prerequisite MUSI 201.

MUSI 210 (3-3-0) Music Appreciation
An introduction to the basic materials and ideas of music, stressing the relationship of music to society, culture, and philosophy; introducing musical instruments and the contributions of important composers; and studying characteristics of style and form in various types of music. Recital attendance required.

MUSI 225 A History of Jazz in the American Culture
Using both a socio-cultural and historical perspective, this course explores the major forms of African-American folk music indigenous to the United States. These forms of African American folk music (ragtime, blues, and gospel) contain elements of musical expressions rooted in the aesthetic make-up of jazz. Along with these forms of musical expressions, an element of critical thinking and analysis will necessitate the disposition and environment for the understanding of jazz music and its ingenious development.

MUSI 241 (1-0-2) Class Strings
A study of the basic concepts of playing and teaching the bowed string instruments, focusing on basic performance skills on each of the instruments (violin, viola, violoncello, and bass viol), as well as on information about techniques for organizing, recruiting, and teaching string classes and orchestras in the public schools.

MUSI 242 (1-0-2) Class Woodwinds
A practical introduction to the woodwind family, with emphasis on techniques for playing the flute, clarinet, oboe, bassoon, and saxophone, as well as on the characteristics and functions of each woodwind instrument and the basic skills needed to offer instruction on woodwind instruments in the public schools.

MUSI 251 (1-0-2) Class Voice I
A course featuring group instruction in the fundamentals of singing, with emphasis on breath control, posture, and tone production, and with additional attention to developing a beginning vocal repertoire.

MUSI 252 (1-0-2) Class Voice II
A continuation of techniques started in MUSI 251, including new material such as basic diction, consonant and vowel production, and the extension of vocal and dynamic range through exercises and repertoire. Prerequisite MUSI 251.

MUSI 260 (3-3-0) African-American Music
A study of traditional African music and its interaction with western musical styles, with emphasis on the development of the blues, spirituals, gospel music, jazz idioms, and more recent African-American styles, and with attention to the work of major black composers and performers in both the concert and commercial areas.

MUSI 262 (1-2-0) Diction
A study of the enunciation, pronunciation, and articulation of languages applicable to performances of vocal
literature written in English, French, Italian, German, and Latin.

MUSI 267 (1-0-1) Applied Brass
MUSI 278
A sequence of courses in technical studies of brass/wind instruments, with additional emphasis on the development of a recital repertoire. Student recitals and a minimum of ten hours practice per week required. Sophomore year sequence.

MUSI 269 (1-0-1) Applied Organ
MUSI 280
A sequence of courses in organ technique and repertoire, including the Bach Little Preludes and Fugues, Orgelbuechlein; Brahms Choral Preludes; Vierne and Widor; hymns; and other standard works. Sophomore year sequence.

MUSI 271 (1-0-1) Applied Piano
MUSI 282
A sequence of courses in piano technique and repertoire on the level of Beethoven Sonatas Op. 49, Nos. 1, 2; Bach Two and Three-part Inventions; Chopin Mazurkas, and Waltzes; and Bartok Mikrokosmos, Volumes III and IV; major scales and minor scales in contrary and parallel motion. Sophomore year sequence.

MUSI 273 (1-0-1) Applied Percussion
MUSI 284
A sequence of courses focusing on technical studies and the development of a recital repertoire on mallet percussion instruments, including timpani. Performance in student recitals and a minimum of ten hours practice per week required. Sophomore year sequence.

MUSI 275 (1-0-1) Applied Strings
MUSI 286
A sequence of courses in technical studies and the development of a recital repertoire for strings. Performance in student recitals and a minimum of ten hours practice per week required. Sophomore year sequence.

MUSI 277 (1-0-1) Applied Voice
MUSI 288
A continuation of studies in tone production and other principles of singing, with emphasis on various vocalists and on English, Italian, and French songs. Sophomore year sequence.

MUSI 279 (1-0-1) Applied Woodwinds
MUSI 290
A sequence of courses in technical studies and the development of a recital repertoire for woodwinds. Performance in student recitals and a minimum ten hours practice per week required. Sophomore year sequence.

MUSI 281 (3-3-2) Harmony, Sight Singing, and Ear Training II
Further study of harmonic elements with emphasis on analysis of primary and secondary triads, seventh chords, and cadences in the content of compositions representing the major historical style periods. Introduction to small forms, nonharmonic tones and melody harmonization. Continuation of part-writing principles, sight singing, ear training, keyboard activities, and computer application of concepts studied. Prerequisite: MUSI 152.

MUSI 292 (3-3-2) Harmony, Sight Singing, and Ear Training III
Further study of harmonic materials of previous theory courses, including nonharmonic tones, principles of harmonic progression, and part-writing procedures involving more complex harmonies. Introduction of secondary dominants, elementary modulation, and small forms such as phrases, periods, and phrase groups. Creative work, keyboard harmony, sight singing, ear training, analysis, and computer assignments will provide opportunities for application of theoretical concepts studied. Prerequisite: MUSI 281.

MUSI 341 (1-0-2) Class Brass
A study of basic concepts, techniques, and information related to offering instruction on the brass instruments - trumpet, French horn, trombone, euphonium, tuba - in the public schools.

MUSI 342 (1-0-1) Class Percussion
A study of basic concepts, techniques, and information related to offering instruction tuned and untuned mallet and keyboard percussion instruments and drums in the public schools.

MUSI 351 (3-3-0) Music History I
A survey of the development of music from antiquity through the seventeenth century.

MUSI 352 (3-3-0) Music History II
A survey of the development of music from the culmination of the Baroque era in the early eighteenth century to the present day, with emphasis on performance practices and on works of major composers of the late Baroque and Rococo periods, the Viennese Classical School, the Romantic, Post-Romantic, and Impressionist periods, and the twentieth century.

MUSI 354 (2-2-0) Form and Analysis
A study of the basic musical forms and structures as well as of related materials, such as key relationships, modulations, and cadence formulae. Prerequisites: MUSI 381 and MUSI 352.

MUSI 367 (1-0-1) Applied Brass
MUSI 368
A sequence of courses in technical studies and the development of a recital repertoire. Student recital and a
Course Descriptions - 155

minimum of ten hours practice per week required. Junior year sequence.

MUSI 369 (1-0-1) Applied Organ
MUSI 380
A sequence of advanced courses in organ literature, including works of Bach, Buxtehude, Handel, Mendelssohn, Franck, Widor, etc., and incorporating elements of church service playing, hymn playing, and anthem accompaniment, as well as orders of liturgical services and other special services. Performance from memory. Junior year sequence.

MUSI 371 (1-0-1) Applied Piano MUSI 382
A continuation of technical piano studies, focusing on compositional form and performance style in works from the various historical periods, including the Bach Preludes and Fugues from the Well-Tempered Clavier, Haydn Sonatas, Chopin Nocturnes, Brahms Intermezzi, and Bartok Mikrokosmos, Vol. V, or Bartok Sonatina. Junior year sequence.

MUSI 373 (1-0-1) Applied Percussion MUSI 384
A sequence of courses in technical studies and recital repertoire development for percussion instruments, especially the marimba and the tympani. Performance in student recitals and a minimum of ten hours practice per week required. Junior year sequence.

MUSI 375 (1-0-1) Applied Strings MUSI 386
A sequence of courses in technical studies and recital repertoire development for strings. Performance in student recitals and a minimum of ten hours practice per week required. Junior year sequence.

MUSI 377 (1-1-0) Applied Voice MUSI 388
A comprehensive study of English, Italian, French, and German songs, to build a repertoire for the senior recital. Junior year sequence.

MUSI 379 (1-0-1) Applied Woodwinds MUSI 390
A sequence of courses in technical studies and recital repertoire development for woodwinds. Performance in student recitals and a minimum of ten hours practice per week required. Junior year sequence.

MUSI 381 (3-3-2) Harmony, Sight Singing, and Ear Training IV
A study in advanced harmonic materials, including diminished seventh, Neapolitan sixth, borrowed, and augmented sixth chords, as well as ninth, eleventh, and thirteenth chords. Introduction to binary, ternary and composite forms; continuation of part-writing activities, harmonic analysis, sight singing and ear training exercises, keyboard harmony, and computer assignments. Introduction to twentieth-century harmonic practices such as whole tone scales, atonality, serialism, etc. Prerequisite: MUSI 292.

MUSI 391 (2-2-0) Conducting (Elementary)
The development of manual techniques, score studies, and listening skills related to the conducting of instrumental and vocal ensembles.

MUSI 394 (1-2-0) Choral Conducting
A course developing the oral, visual, and aural skills necessary to conduct vocal ensembles - mixed choirs, female choirs, and male choirs-as well as the skills and proficiency to read scores of compositions such as madrigals, motets, anthems, oratorios, and cantatas.

MUSI 396 (1-2-0) Instrumental Conducting
A course developing the aural, visual, and oral skills necessary to conduct instrumental ensembles - marching bands, concert bands, and jazz ensembles-and to increase proficiency in score reading. Prerequisite: MUSI 381

MUSI 420 (1-2-0) Choral Literature
A study of choral literature from 1450 through the twentieth century, including such activities as listening to and analyzing works. Prerequisite: MUSI 381

MUSI 430 (1-2-0) Keyboard Literature
A study of keyboard pieces from various musical eras and of the composers, styles, and structures of the compositions.

MUSI 431 (2-2-0) Orchestration
A study of methods and techniques for arranging compositions for band and orchestral ensembles, with special attention to transposition techniques and to basic compositional principles. Prerequisite: MUSI 381

MUSI 440 (1-2-0) Woodwind Literature
A study in the listening, analysis, and evaluation of woodwind solo and ensemble music, in the evaluation of materials for technique development, and in the evaluation and selection of musical scores for band and symphonic performances.

MUSI 441 (3-3-0) Methods and Materials (Elementary)
A study of curriculum, materials, and procedures for music instruction in elementary and intermediate grades.

MUSI 461 (2-0-1) Class Guitar
A study in tuning, basic chords, music reading, right-hand techniques, and improvisational accompaniments for the guitar.

MUSI 462 (2-2-0) Music Composition
A study in musical composition that includes writing pieces in basic binary and ternary song forms, variations, and sonata-allegro and rondo forms, with emphasis on integrating materials learned in harmony, counterpoint, and orchestration. Prerequisite MUSI 381.
MUSI 465 (2-2-0) Instrument Repair and Maintenance
A study of basic techniques for the maintenance and repair of musical instruments.

MUSI 467 (1-0-1) Applied Brass
MUSI 478
Senior recital preparation, with emphasis on the development of advanced techniques for brass performance. Senior recital repertoire approval by instructor and music faculty committee required in second semester course. Senior year sequence.

MUSI 469 (1-0-1) Applied Organ
MUSI 480
Continued study and practice of repertoire works, with emphasis on larger and more difficult compositions from the general literature and on the satisfactory public performance of a memorized composition in larger form. Senior year sequence.

MUSI 471 (1-0-1) Applied Piano
MUSI 482
A sequence of courses in piano study to develop and refine performance techniques and to begin preparations and repertoire practice for the senior recital, with selections chosen from such works as the Bach Well-Tempered Clavier (selections), the Bach French Suites, Mozart or Beethoven Sonatas, Chopin Preludes or Nocturnes, Bartok Mikrokosmos, Vol. VI, Allegro Barbara or Suite, Op. 14, or other works. Senior year sequence.

MUSI 473 (1-0-1) Applied Percussion
MUSI 484
Senior recital preparation, with emphasis on the development of advanced techniques for percussion. Senior recital repertoire approval by instructor required in second semester. Senior year sequence.

MUSI 475 (1-0-1) Applied Strings
MUSI 486
Senior recital preparation, with emphasis on the development of advanced techniques for strings. Senior recital repertoire approval by instructor required in second semester. Senior year sequence.

MUSI 477 (1-0-1) Applied Voice
MUSI 488
In-depth studies of vocal techniques and the literature from Baroque to Contemporary periods, with emphasis on preparations for the senior recital. Senior year sequence.

MUSI 479 (1-0-1) Applied Woodwinds
MUSI 490
Senior recital preparation, with emphasis on the development of advanced techniques for woodwinds. Senior recital repertoire approval by instructor required in second semester. Senior year sequence.

MUSI 491 (2-2-0) Vocal Literature
A survey of vocal music from the Renaissance to the 20th century, including listening, singing, and analyzing music.

MUSI 499 (1-0-1) Senior Recital
A performance program of at least thirty minutes, consisting of works representing various styles and periods. Prerequisite: Seven hours of applied music in the major field. Faculty committee approval required for senior recital.

Natural Science (NSCI)

NSCI 110 (4-3-2) Comprehensive Physical Science
A course that presents the ideas, concepts and laws of physics, chemistry, meteorology, geology, astronomy, and oceanography at an introductory level for non-science majors. A series of laboratory/recitation sessions will be used to illustrate the fundamental concepts. Corequisite: MATH 123.

NSCI 120 (4-3-2) Modern Biology
An introductory course covering basic biological concepts that provides the student with a comprehensive survey of biological sciences. Some important areas which will be investigated are: cell structure and reproduction, energy relationships at the cellular level, genetics, DNA, evolution, ecology, bacteria, protists, fungi, plants, and animal organ systems. Prerequisite: NURS 300.

Nursing (NURS)

NURS 300 (3-3-0) Transition to Professional Nursing
This course focuses on the role of the professional nurse. An overview of the delivery of professional nursing practice and role transition. Advanced theoretical concepts will be examined using the nursing process as a framework. Prerequisites: Admission to the program and completion of all core and support courses.

NURS 310 (3-3-0) Transcultural Nursing
This course is designed to assist the nurse to expand his/her view of man. Man is defined as functioning, whole unit with integrity and uniqueness who uses symbols to communicate with the environment. Emphasis will be placed on the concepts of culture, belief systems, health and caring, and how these concepts affect the nursing care delivery system. Prerequisite or corequisite: NURS 300.

NURS 320 (3-2-1) Health Assessment Across the Life Span
This course prepares the student to conduct comprehensive health assessments. Emphasis is placed on the acquisition, processing and interpretation of data collected from clients of all ages. A physical, psychological, socio-cultural, and spiritual approach is used to assess the client and to incorporate consideration of the client’s needs, state of wellness, developmental level, and response to life experiences. The campus laboratory experience consists of practice with clients. Successful completion of the course
NURS 330 (3-3-0) Gerontological Nursing
This course examines the process of aging. Physical, psychological, sociocultural, and spiritual aspects of aging are examined within the context of the family and society. Advanced theoretical concepts of aging will be examined using the nursing process. Note: Students must take either NURS 330 or NURS 421. Prerequisite: NURS 300, NURS 310; Prerequisite or corequisite: NURS 320

NURS 325 (3-3-0) Pathophysiology
This course prepares the student to systematically approach complex situations. Emphasis will be placed on the integration and application of pathophysiological concepts to the holistic human in time of physical stress. This course utilizes the nursing process as the basis for examining persons with pathologies requiring multiple dimensions of nursing care. Prerequisites: NURS 300, NURS 310, NURS 320.

NURS 400 (3-3-0) Nursing Research and Theory
This course focuses on the cognitive and professional skills of nursing research and theory. The cognitive skills emphasized include critical thinking, problem solving, research critique, and theory utilization in professional nursing practice. The professional skills include valuing research as a basis for professional nursing practice. Prerequisites: NURS 300, NURS 310, NURS 320

NURS 411 (3-3-0) Nursing Leadership Perspectives and Trends in Contemporary Nursing Practice
This course is designed to analyze the role of the professional nurse as a leader in the profession and health care delivery. The course will focus on nursing leaders as vanguards of the profession and the role of the nurse leader in health care delivery. Advanced theoretical concepts will be examined using the nursing process as a framework. Prerequisites: 300 level nursing courses; Prerequisite or corequisite: NURS 400

NURS 421 (3-3-0) Nursing and Women's Health
This course is designed to focus on the current health care challenges and issues of women's health and implications for professional nursing practice. Women's roles in a complex society will be examined to facilitate increased self awareness as consumers and providers in the health care delivery system. Note: Students must take either NURS 330 or NURS 421. Prerequisite: NURS 300, NURS 310, NURS 320; Prerequisite or co-requisite: NURS 400.

NURS 430 (5-3-6) Contemporary Supportive Nursing: Individual, Group, Family, and Community Systems
This course is designed to provide the opportunity for the student to assist culturally diverse populations and aggregates within the community to achieve an optimal level of wellness. Special emphasis will be placed on advanced theoretical concepts related to health promotion, risk reduction, disease prevention, and developmental processes. The process of professional role development will be fostered through both independent and interdependent clinical experiences. Prerequisites: NURS 300, NURS 310, NURS 320; Prerequisite or corequisite: NURS 400.

NURS 440 (1-0-0) Professional Nursing Honors Practicum
Restriction: Must have a minimum overall cumulative GPA of "B" (3.0) and Nursing Director approval. Provides outstanding academic nursing students the opportunity to identify and analyze a nursing topic and/or problem of major interest. The focus will be a guided study under the direction of a nursing faculty in the area of the student’s major interest. The project will include a formal type-written proposal, and final type-written and/or oral report. This course is NOT REQUIRED FOR THE DEGREE. Prerequisites: Must be classified as a senior.

NURS 450 (3-3-0) Professional Nursing Issues in Practice: A Capstone
This course is the capstone experience that includes synthesis of nursing cognates and general education. The experience allows students to assess their knowledge of the program objectives. The course will incorporate essential knowledge, psychomotor, and affective domains of BSN education. Prerequisite or co-requisite: Students will take this course in their last semester simultaneously with or after completing all requirements for the BSN degree.

NURS 480 (2-0-6) Senior Practicum
This practicum course is designed to promote student responsibility and accountability for professional nursing practice by strengthening professional nursing roles and behaviors. Prerequisites: This course will be taken in the senior year either simultaneously with or before NURS 450.

Physical Education (PEDU)

PEDU 000 (0-2-0) Swimming
An introduction to the fundamentals of swimming designed for students scoring below the minimum on the swimming classification test to assist them in developing the prerequisite skills necessary to enroll in PEDU 201 - Swimming II (required of all Physical Education majors).

PEDU 100 (1-1-0) Individual Physical Education Activities
Special activities designed for students with physical disabilities or verified health problems that prevent their participation in vigorous physical education.

PEDU 101 (1-2-0) Swimming (Coed)
An introductory course in the fundamentals of swimming, with instruction provided at the beginning swimmers level of the Red Cross Program.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEDU 102</td>
<td>Dance</td>
<td>A course for beginning dancers, emphasizing movement as a medium of expression in the development of dance technique, locomotor skills, and creativity.</td>
</tr>
<tr>
<td>PEDU 103</td>
<td>Jogging</td>
<td>This activity course is designed to improve student understanding of the component parts of fitness (muscular strength and endurance, cardiovascular endurance, flexibility and body composition) and their relationship to his/her individual needs.</td>
</tr>
<tr>
<td>PEDU 106</td>
<td>Beginning Soccer</td>
<td>This course is designed to teach students the fundamental skills and strategies of soccer. The students will understand and become familiar with the rules and regulations, consequently enhancing self-confidence and satisfaction in teaching and participating in soccer.</td>
</tr>
<tr>
<td>PEDU 107</td>
<td>Weight Training</td>
<td>This course is designed to familiarize students with weight training and body conditioning. Emphasis will be placed on proper lifting techniques, weight training for conditioning, body building, and power lifting.</td>
</tr>
<tr>
<td>PEDU 110</td>
<td>Softball</td>
<td>The study and practice of the fundamentals of softball, including rules, playing strategies, team offense and defense, and techniques of base running, catching, throwing, and batting.</td>
</tr>
<tr>
<td>PEDU 111</td>
<td>Stunts, Tumbling and Trampoline</td>
<td>The study and practice of fundamentals for performing beginning stunts and tumbling exercises safely and skillfully.</td>
</tr>
<tr>
<td>PEDU 112</td>
<td>Golf</td>
<td>The study and practice of beginning golf, with emphasis on terminology, rules, customary courtesies, and appropriate use of the following clubs: mid-irons, short-irons, putter, and woods.</td>
</tr>
<tr>
<td>PEDU 120</td>
<td>Tennis and Badminton</td>
<td>The study and practice of fundamentals involved in singles and doubles play in tennis and badminton, including rules, techniques, and skills.</td>
</tr>
<tr>
<td>PEDU 121</td>
<td>Archery and Table Tennis</td>
<td>A practical study of the historical development, rules, techniques, and basic skills of archery and table tennis.</td>
</tr>
<tr>
<td>PEDU 122</td>
<td>Volleyball</td>
<td>A practical study of the fundamentals of volleyball, including the historical development of the game and the rules and techniques of serving, setting, volleying, and scoring basic to playing the game.</td>
</tr>
<tr>
<td>PEDU 130</td>
<td>Basketball</td>
<td>A practical study of the fundamentals of basketball, including the rules and historical development of the game, techniques of passing, dribbling, shooting, and conditioning, playing strategies, and team offense and defense.</td>
</tr>
<tr>
<td>PEDU 131</td>
<td>Theory of Physical Education</td>
<td>A study of the philosophical, historical, biological, sociological, and psychological foundations of physical education.</td>
</tr>
<tr>
<td>PEDU 140</td>
<td>Conditioning Exercise</td>
<td>A practical study of conditioning exercises, individual and group, for improving health and fitness, posture, and appearance.</td>
</tr>
<tr>
<td>PEDU 141</td>
<td>Racquetball</td>
<td>This course introduces the beginner to the basic skills of racquetball, including scoreboard and backhand drives, grips, footwork, and serves. Safety consideration as well as rules and terminology are covered. Basic strategy is presented involving the return of service, use of ceiling and rear wall, and passing and kill shots. The course prepares the beginner for play in singles, doubles and cutthroat.</td>
</tr>
<tr>
<td>PEDU 200</td>
<td>Swimming I</td>
<td>A course for physical education majors who already swim, emphasizing the following skills: a fully-coordinated crawl stroke, back stroke, open turn, treading water, surface turns, underwater swimming, back float, and standing front dive. (For physical education majors.) Prerequisite: Passing the classification test.</td>
</tr>
<tr>
<td>PEDU 201</td>
<td>Swimming II</td>
<td>A course in swimming emphasizing the following swimming strokes and skills: breast stroke, inverted breast stroke, trudgen crawl, side stroke, American crawl, butterfly, and fundamental diving skills.</td>
</tr>
<tr>
<td>PEDU 202</td>
<td>Individual and Dual Sports</td>
<td>A practical study of methods and materials for teaching tennis, badminton, golf, camping, and track and field, with emphasis on developing materials and adapting strategies to the level of the learner.</td>
</tr>
<tr>
<td>PEDU 204</td>
<td>Methods and Materials in Individual and Dual Sports</td>
<td>A practical introduction to the individual and dual sports of archery, badminton, golf, tennis, and camping, with emphasis on the knowledge base of each sport, the methods and techniques of teaching each, playing strategies, mechanical analyses, and skill development.</td>
</tr>
<tr>
<td>PEDU 210</td>
<td>Team Sports I: Soccer and Volleyball</td>
<td>A course to assist physical education majors in their development of soccer and volleyball techniques, with additional emphasis on developing teaching materials and strategies appropriate to various age levels.</td>
</tr>
</tbody>
</table>
PEDU 212 (1-2-0) Gymnastics and Stunts
A course in the development of physical coordination, strength, and related teaching techniques through practice sessions on the trampoline, parallel bars, side horse, and mats.

PEDU 214 (2-3-0) Team Sports II
A course in team sports, focusing on the development of sport skills in track and field, basketball, volleyball, soccer, and softball, and on the learning of techniques for the acquisition and retention of neuromuscular skills.

PEDU 290 (2-3-0) Modern Dance
A course focusing on the development of kinetic awareness in sequences and movements, with emphasis on a practical knowledge of locomotor and non-locomotor movements related to modern dance basic to enhancing dance techniques, locomotor skills, and creativity.

PEDU 300 (1-2-0) Practicum in Physical Education
A practical course in physical education incorporating supervised experience in the development of teaching skills and leadership abilities appropriate to classroom settings, with emphasis on arranging equipment, organizing groups for skills practice, measuring and marking play areas, and selecting and administering skills tests.

PEDU 302 (2-2-0) Motor Learning
A study of the physiological and psychological variables associated with motor performance and skill acquisition and retention, with special attention to theories and principles of psychomotor skills learning, research studies and relevant issues related to motor learning, and the role of physical movement in the acquisition of knowledge and skills in non-motor subject matter areas.

PEDU 310 (2-2-0) Rhythms
A practical study of the rhythmic structures of dance movements and their relation to the promotion of motor skill development in rhythm.

PEDU 311 (3-3-0) History and Principles
An introduction to the philosophical, historical, biological, sociological, and psychological foundations of physical education and sports, sports curriculum development, and motor learning theories.

PEDU 320 (2-2-0) Methods and Materials of Teaching Health Education and Physical Education
An introduction to methods and materials basic to elementary school health and physical education programs. Prerequisite: Admission to the Teacher Education Program.

PEDU 321 (3-3-0) Early Childhood Physical Education K-6
An in-depth experience in the teaching of physical education activities to preschool and primary children.

PEDU 322 (3-3-0) Physical Education in Middle Grades 6-9
An introduction to methods and materials basic to developing programs and teaching physical education activities appropriate to children in the Middle Grades.

PEDU 331 (3-3-0) Kinesiology
A study of the musculature and bone structure of the human body and their relationship to physical movement, joint mechanisms, leverage, and muscle actions. Prerequisite ZOOL 210 or approval of instructor.

PEDU 341 (3-2-0) Basketball Theory
An exploration of theories of basketball, with additional emphasis on organization and supervision of programs, motivation, evaluation, ethics, philosophy, planning, drills, and offensive and defensive skills.

PEDU 342 (3-2-0) Track Theory
An introduction to the theories and practices of teaching and coaching specific track events, with emphasis on research and performance techniques, track and field meet administration, and rules of the sport.

PEDU 351 (3-2-0) Football Theory
An exploration of theories of football, with additional emphasis on organization and supervision of programs, motivation, evaluation, ethics, philosophy, planning, drills, and offensive and defensive skills.

PEDU 360 (3-3-0) Theory and Practice in Elementary Physical Education
A practical study of the place of physical activities in the total development of elementary age students (K-6), with emphasis on methods and materials for incorporating in the curriculum such activities as movement education, rhythms, mimetics, relays, combatives, self-testing, games of low organization, and singing games.

PEDU 361 (2-2-0) Sport Officiating
A study of the rules and mechanics for officiating at various seasonal sports, with practical experience in officiating at university intramural programs and in observing and evaluating officials in regularly scheduled contests.

PEDU 362 (3-3-0) Lifesaving and Water Instruction
A course to provide students with the knowledge and skills to save their own lives or the life of another in the event of an emergency. Major emphasis will be placed on personal safety, self rescue, rescue training skills, and back injury problems. Instruction and participation in swimming for the development of advanced skills and techniques will include methods and materials for teaching all levels of swimming. Prerequisite: PEDU 201.

PEDU 411 (3-3-0) Organization and Administration of Health and Physical Education
A study of the organization and administration of programs in health and physical education, including such
topics as philosophy, program planning, course evaluation, staffing, facilities and equipment management, athletic activities, budgeting and finance, and public relations.

**PEDU 421 (3-3-0) Measurement and Evaluation**
A study of measurement and evaluation in health and physical education, including the selection and administration of appropriate tests and the use of fundamental statistical procedures to calculate and interpret results.

**PEDU 431 (3-3-0) Adapted Physical Education**
Lecture and practicum course covering the introductory techniques for conducting a physical education program to meet the needs of the disabled. Experience will include the evaluation of physical, motor, and postural fitness levels and the design, implementation, and evaluation of a diversified program of activities, games, and sports. Each student is required to spend a minimum of 25 hours of laboratory experience in schools, agencies, and/or institutions.

**PEDU 442 (3-3-0) Modern Dance Theory**
A course incorporating the analysis and practice of skills, the exercise of creative processes, and the acquisition of knowledge involved in modern dance.

**PEDU 452 (3-3-0) The Intramural Sports Program**
A practical study of the organization and administration of public and collegiate sports programs.

**PEDU 460 (3-3-0) Methods and Materials in Physical Education K-12**
A course for physical education majors emphasizing the importance of physical activity in the total development of the elementary and secondary student, with attention to the methods and materials, objectives and characteristics of activities appropriate to students in grades K-12, and to techniques for evaluating movement, locomotor, and non-locomotor skills.

**PEDU 462 (3-3-0) Physiology of Exercise**
A study of the physiological effects of exercise on the various body systems, with emphasis on the musculoskeletal, cardiovascular, and respiratory systems, and on laboratory techniques for monitoring physiological parameters.

**PEDU 463 (3-3-0) Athletic Injuries**
A practical study of the principles and applications basic to the prevention, treatment, and rehabilitation of athletic injuries.

**PEDU 471 (3-3-0) Research Methodology**
A critical analysis and investigation of the current research methods applicable to health and physical education and the changing academic climate.

**PEDU 472 (3-3-0) Sports in Contemporary American Society**
An interdisciplinary course introducing the social, economic, ethical, moral, and recreational aspects of sports in contemporary society, with special examination of such topics as aggression in sports, the roles of blacks and women in sports, exploitation in sports, and the entertainment value of sports.

**PEDU 482 (3-3-0) Psychology of Coaching**
A practical study of problems specifically related to coaching, such as recruiting, acquiring a thorough grounding in game rules and playing techniques, organizing practices, and sideline coaching.

**PEDU 483 (3-3-0) Supervision of Health and Physical Education**
An analysis of current supervisory practices relative to physical education programs in city, county, and state school systems, with emphasis on program planning, fiscal management, and laws pertaining to the conduct of health and physical education programs.

**PEDU 492 (3-3-0) Wrestling**
A course focusing on the basic skills, tactics, strategies, rules and regulations involved in wrestling.

**Philosophy (PHIL)**

**PHIL 110 (3-3-0) Critical Thinking**
An introduction to the basic elements of argumentation, focusing on the analysis, evaluation, and development of claims and arguments in the sciences, the humanities, the social sciences, the applied sciences, and everyday life experiences.

**PHIL 210 (3-3-0) Introduction to Philosophy**
An analytical study of ancient and modern philosophical problems in metaphysics, the philosophy of religion, epistemology, ethics, and political philosophy, with emphasis on encouraging critical approaches to theoretical and practical issues. Pre- or Corequisite PHIL 110.

**PHIL 211 (3-3-0) Introduction to World Religions**
An examination of the religions of the world, including the nature of religious beliefs, spiritual beings and powers, myths, rituals, ethics, religious claims and arguments, and the impact of religions on culture, politics, society, and the daily lives of believers. Traditional African religions, Islam, Hinduism, Buddhism, Christianity, religions of Meso America, religions of Native Americans, Confucianism, Taoism, Shintoism, Judaism, and Sikhism will be addressed.

**PHIL 212 (3-3-0) African-American Philosophy**
This course is a critical examination of the following concepts and issues pertaining to the African-American experience in historical and contemporary periods: oppression, resistance, justice, liberation, separatism, integration, affirmative action, identity, self-respect, race, class, gender, the universality of Western Philosophy, and cultural features of philosophy. These concepts and issues will be addressed through an analysis of writings by major figures such as: Sojourner Truth, Frederick Douglass, W.E.B. DuBois, Alain Locke, Martin Luther King, Jr.,
PHIL 220 (3-3-0) Introduction to Logic
An introduction to techniques of correct reasoning in informal contexts, to Aristotelian and mathematical logic, and to practical applications of logic, for example, in addressing contemporary issues and in completing logic sections of national examinations such as the GRE, GMAT, LSAT, NTE, MCAT, etc. Prerequisite PHIL 110.

PHIL 230 (3-3-0) Political and Social Philosophy
An introduction to traditional and contemporary sociopolitical thought and its relationship to practice, with emphasis on the interdependence of economic and sociopolitical issues and on the African viewpoint and its relationship to other world views. Prerequisite One of the following: PHIL 110, PHIL 210, or PHIL 220.

PHIL 310 (3-3-0) Philosophy of Religion
A course examining the claims of religion from a logical point of view and covering such topics as traditional arguments for the existence of God, the problem of evil, evolution, knowledge and belief, religion and morality, religious experience and verification, and existentialism. Prerequisite A t least one of the following: PHIL 110, PHIL 210, or PHIL 220.

PHIL 320 (3-3-0) Introduction to Ethics
A philosophical exploration of the basis of the good life, involving approaches to the problems of moral belief and practices. Prerequisite A t least one of the following: PHIL 110, PHIL 210, or PHIL 220.

PHIL 330 (3-3-0) Ancient & Medieval Philosophy
A study of major philosophical developments from the ancient Greeks through the medieval period, emphasizing Plato, Aristotle, and Aquinas. Students will develop skills in the analysis, development, and evaluation of claims and arguments connected with the ancient and medieval periods. Prerequisite One of the following: PHIL 110, PHIL 210, or PHIL 220.

PHIL 340 (3-3-0) Modern Philosophy
This course provides a study of major philosophical developments of the modern period, with emphasis on the arguments of the rationalists and empiricists. Students will develop skills in the analysis, development, and evaluation of claims and arguments of the modern period. Prerequisite A t least one of the following: PHIL 110, PHIL 210, or PHIL 220.

PHIL 360 (3-3-0) Existentialism
This seminar in philosophy provides a study of Existentialism as a response to the philosophical problems unique to the post-industrial societies as articulated by Kierkegaard, Nietzsche, Sartre, Camus, et al. Focusing primarily on such major existential themes as choice, responsibility, identity, freedom, and alienation, the students will explore the common concern of these thinkers about human existence and the conditions and quality of the life of the individual. Prerequisite A t least one of the following PHIL 110, PHIL 210, or PHIL 220.

PHIL 370 (3-3-0) Philosophy of Science
This course provides a philosophical exploration of issues in the philosophy of science and technology, and of problems of scientific belief and practice. Topic areas include the value of science; the nature of scientific activities; science and myth; generalization and related inductive reasoning; causal reasoning; scientific theories; science and society; change in science; and, scientific explanation. Students will develop skills in the analysis, development, and evaluation of scientific claims and scientific arguments. Prerequisite A t least one of the following: PHIL 110, PHIL 210, or PHIL 220.

PHIL 430 (3-3-0) Seminar in Philosophy
Individual or group study and critical discussion of selected philosophical issues. Prerequisite A t least one of the following: PHIL 110, PHIL 210, or PHIL 220.

Physics (PHYS)

PHYS 110 (2-2-0) Basic Physics
An introduction to fundamental concepts of measurements, dimensions and units, scalars and vectors, forces and free-body diagrams, work and energy, with attention to the improvement of problem-solving and computational skills. Pre or Corequisite MATH 123 or higher.

PHYS 111 (4-3-2) General Physics I
An introductory study of the phenomena and concepts of classical physics, emphasizing mechanics, wave motion, fluids, temperature, and heat, with laboratory exercises providing practical knowledge in handling laboratory apparatus, data collection, and data interpretation related to topics discussed in the lectures. Prerequisite MATH 124 or higher level mathematics course.

PHYS 112 (4-3-2) General Physics II
A continuation of PHYS 111, emphasizing the principles of electricity, magnetism, electromagnetic waves, geometrical and physical optics, with laboratory exercises providing practical knowledge in handling laboratory apparatus, data collection, and data interpretation related to the topics discussed in the lectures. Prerequisite PHYS 111.

PHYS 113 (2-2-0) General Physics III
A continuation of PHYS 112, emphasizing the concepts and principles of modern physics, including special relativity, quantum physics, nuclear and high energy physics. Conceptual demonstrations of essential principles will be an integrated feature of this course. Prerequisite PHYS 112.

PHYS 121 (4-3-2) College Physics I
A calculus-based introductory study of Newtonian mechanics, wave motion, thermodynamics, and related
MATH 241 or consent of instructor.
Prerequisites: PHYS 113 or 123, MATH 142. Corequisite: chemistry, and biology are all essential to the course. The ideas of physics, macro-molecules, cellular organelles, and the many processes occurring within the cell. The ideas of physics, electronics, mechanics, thermodynamics, optics, and acoustics to living organisms. Beginning with the subatomic level, the basic knowledge of physics is used to understand the structure and function of atoms, simple molecules, macro-molecules, cellular organelles, and the many processes occurring within the cell. The ideas of physics, chemistry, and biology are all essential to the course. Prerequisites: PHYS 113 or 123, MATH 142. Corequisite MATH 241 or consent of instructor.

PHYS 122 (4-3-2) College Physics II
A continuation of PHYS 121, emphasizing the principles of electricity, magnetism, electromagnetic waves, geometrical and physical optics, with laboratory exercises providing practical knowledge in handling laboratory apparatus, data collection, and data interpretation related to topics discussed in lectures. Prerequisite PHYS 121.

PHYS 123 (2-2-0) College Physics III
A continuation of PHYS 122, emphasizing the principles of special relativity, quantum physics, nuclear and high energy physics. Demonstrations of essential principles will be an integrated feature of this course. Prerequisite PHYS 122.

PHYS 211 (4-3-2) Mechanics
An intermediate-level concentration in mechanics dealing with vector analysis, central force problems, rotational motion, and time, position, and velocity dependent forces, steady state and time varying forced oscillations and the Lagrangian method. with laboratory exercises complementing theory. Prerequisite: PHYS 121, MATH 242. Corequisite MATH 331.

PHYS 212 (4-3-2) Heat
An intermediate-level concentration in thermodynamics dealing with the laws of thermodynamics, open and closed systems, kinetic theory of gases, heat engines, and statistical mechanics with laboratory exercises complementing theory. Prerequisites: PHYS 122, MATH 241.

PHYS 301 (4-3-2) Electronics for Scientists
An introduction to the foundations of electronics for students of the sciences, with specific consideration of the properties of semi conducting elements. The course emphasizes various types of electronic circuits and devices such as amplifiers, and other solid state devices, using linear and digital circuits. Construction and analysis of electronic circuits and devices, with experimental demonstrations of their uses, are essential components of the course. Prerequisites: PHYS 113 or PHYS 123, MATH 142. Corequisite MATH 241 or consent of the instructor.

PHYS 302 (4-3-2) Biophysics
An introduction to the basic principles of electricity, electronics, mechanics, thermodynamics, optics, and acoustics to living organisms. Beginning with the subatomic level, the basic knowledge of physics is used to understand the structure and function of atoms, simple molecules, macro-molecules, cellular organelles, and the many processes occurring within the cell. The ideas of physics, chemistry, and biology are all essential to the course. Prerequisites: PHYS 113 or 123, MATH 142. Corequisite MATH 241 or consent of instructor.

PHYS 311 (4-3-2) Electricity and Magnetism I
An intermediate-level presentation of the principles and theories of electricity and magnetism, with applications of Maxwell equations and boundary value problems and with laboratory exercises complementing theory. Prerequisites: PHYS 122, 211, MATH 331.

PHYS 312 (4-3-2) Electricity and Magnetism II
An intermediate-level presentation of the principles and theories of electricity and magnetism, with emphasis on boundary value problems, collision processes, radiation, and relativity. Prerequisite PHYS 311.

Political Science (POLI)

POLI 200 (3-3-0) Introduction to Political Science
The study of the basic principles and concepts of political science with emphasis on the nature and function of political systems. Various approaches to the study of politics and the relationship of political science to other social sciences will be examined. Prerequisite Political Science majors must complete POLI 200 before enrolling in POLI 210.

POLI 210 (3-3-0) Principles of American Government
An introduction to the historical background, purposes, and functions of political institutions, especially the structures and activities of the American system - federal, state, and local. Prerequisite POLI 200.

POLI 220 (3-3-0) Principles of Public Administration
A study of basic concepts of administration including the following topics: the growth of administration as an art and a science; the relationship of administration to the political process; administrative organization and processes; the political power of bureaucracies; and the responsibility of public servants.

POLI 301 (3-3-0) Organizational Theory
An analysis of organizational theories, incorporating the traditional political, environmental, behavioral, bureaucratic, and decision-making approaches and applying them to studies of modern organizations, with additional attention to current research on contemporary issues demonstrating the continuing development of organizational theory.

POLI 311 (3-3-0) Political Parties and Pressure Groups
A study of the history, structure, and functions of American political parties and pressure groups, their relationship to democratic government, and their techniques of political action.

POLI 312 (3-3-0) Public Leadership and Management
A course focusing on leadership styles, human motivations, and basic problems of management, including decision-making, communications, and public relations.

POLI 320 (3-3-0) State and Local Government
An examination of the framework of state and local governments in the United States and an evaluation of their
contributions to federal systems, with special attention to North Carolina’s governmental structure and contributions.

**POLI 321 (3-3-0) Public Personnel Management**
A study of the theory, practice, and organization of the public personnel system in the United States, including the essentials of personnel training, classification, compensation, promotion, testing, employee relations, and employee organizations.

**POLI 330 (3-3-0) Public Financial Management**
A study of the practices and problems of modern fiscal management, with special emphasis on budgeting concerns and techniques, budget management for planning and control, and budget review as an analytical tool at the national, state, and local levels of government.

**POLI 331 (3-3-0) Politics and Urban Planning**
A study of approaches to urban planning in the light of political realities in the nation, the state, and the community.

**POLI 332 (3-3-0) The Legislative Process**
A study of the evolution, structure, functioning processes, and dynamics of American legislative institutions, with emphasis on the interrelationships among the legislative, executive, and judiciary branches and outside groups in the law-making process.

**POLI 350 (3-3-0) Government and Politics of Africa**
A course examining characteristics of governments and politics in the developing nations of Africa, with attention to such concerns as colonialism, independence movements, and the problems of nation building.

**POLI 351 (3-3-0) Government and Politics of Europe**
A comparative analysis of the organization, functioning, and processes of governments and politics in the Soviet Union and selected European countries.

**POLI 352 (3-3-0) Government and Politics of Asia**
A course analyzing the organization, functioning, and processes of governments and politics in China, Japan, and other Asian nations.

**POLI 400 (3-3-0) Administration of Urban Government**
A study of the organization and management characteristics of various types of government entities in urban areas, including municipal government, county government, and governmental structures for other special districts.

**POLI 401 (3-3-0) Federalism and Intergovernmental Relations**
A course focusing on changing relationships of local, state, and federal agencies, the expanding role of regional planning boards, and recent developments in the sharing of federal tax revenue with non-national governments.

**POLI 402 (3-3-0) Public Policy Formulation**
A course covering approaches to decision-making in government and administration, including policy formulation within administrative agencies and departments and within the larger context of the overall political process.

**POLI 410 (3-3-0) The American Chief Executive**
A study of the origin, background, and evolution of the Office of the President of the United States, with a review of the president’s powers in the areas of politics, administration, legislation, and foreign affairs. Prerequisite POLI 210 or consent of instructor.

**POLI 411 (3-3-0) Public Opinion and Propaganda**
A study of the development of attitudes and beliefs, the nature of public opinion and propaganda, the methodology of public opinion polling, and the strategies and techniques for influencing public opinion through the uses of propaganda, mass media, and communications.

**POLI 412 (3-3-0) Administrative Law**
An investigation of administrative law, its powers and procedures, the liabilities of administrative agencies and officers, and governmental activities in the regulation of agriculture, industry, and labor.

**POLI 420 (3-3-0) Research Methods in Public Management**
A review of basic concepts, ideas, approaches, methods, and materials used to study administrative institutions, including simulation techniques, surveys, mathematical statistics, cybernetics, content analysis, and computers.

**POLI 422 (3-3-0) American Foreign Policy**
A study of American foreign policy decision-making with assessments of the effectiveness of foreign policies.

**POLI 430 (3-3-0) International Politics**
A study of the interplay of political forces in the international community, with emphasis on war-time diplomacy, peace treaties, and alignments of nations in times of peace and conflict during the postwar period.

**POLI 431 (3-3-0) International Organization**
A study of the basic concepts, historical backgrounds, evolution, and functioning of international governmental and administrative systems, with primary emphasis on the United Nations.

**POLI 432 (3-3-0) International Law**
A review of the rules and practices governing nations in peace and war; the nature, sources, evolution, and functioning of various schools of international law; principal law-making and adjudicatory agencies; international personalities; treaties; jurisdictions over person and place; diplomatic and consular interactions; peace settlements; war and neutrality.
POLI 440 (3-3-0) Introduction to Government Planning
A study of concepts, fundamentals, and methods of planning, focusing on the significance of planning to public administration and public policy, with special consideration of Program Planning Budgeting Systems (PPBS), Management by Objectives (MBO), Program Evaluation and Review Technique (PERT), Planning, Management, and Evaluation (PME), and Zero Base Budgeting (ZBB).

POLI 441 (3-3-0) Citizen Participation in Policy Making
A study of citizens' involvement in political activities and in government policy making, with analyses of citizen initiated and government sponsored efforts to increase popular input, and assessments of the effects of citizen participation on policy making related to specific issues and to the performance of governments.

POLI 442 (3-3-0) Public Policy Analysis
A study of the methods and techniques used in determining the effectiveness of public programs, with emphasis on the development of appropriate systems for conducting evaluations and with the use of case studies for practical exercises in policy analysis.

POLI 450 (3-3-0) History of Political Theory I
A survey of political theories and their practical applications from the days of ancient Greece to the sixteenth-century theorist, Jean Bodin. Prerequisite POLI 200 or consent of instructor.

POLI 460 (3-3-0) History of Political Theory II
A continuation of the study of political theories from Thomas Hobbes to the present. Prerequisite POLI 200 or consent of instructor.

POLI 461 (3-3-0) American Political Ideas
A study of the political ideas of leading American political leaders and public officials, with particular attention to the influences of these ideas upon American governmental systems. Prerequisite POLI 200 and POLI 210 or consent of instructor.

POLI 470 (3-3-0) Government Internship
Supervised experience in the application of principles and techniques to various areas of public service, with supervision and evaluation under the direction of the instructor in cooperation with administrators of selected public agencies in the state, and with requirements including one-hour a week in lectures and conferences and at least nine hours a week on assignment at public agencies.

POLI 471 (3-3-0) Research Seminar
Practical experience in applying the research methods introduced in POLI 420 to in-depth studies of selected topics, incorporating computer technology for data gathering, analyses, and interpretation. Prerequisite POLI 420 or consent of instructor.

POLI 480 (3-3-0) Senior Seminar
Intensive independent studies of selected topics, requiring the preparation and presentation of assigned topics for critical review.

POLI 481 (3-3-0) Senior Seminar - Selected Problems in Public Management
An analysis of problems in public management created by or associated with technological advancements, environmental changes, urbanism, the civil rights movement, ethics and values, private rights, and changing expectations.

POLI 490 (3-3-0) Advanced Reading and Research
Supervised reading and research in areas of special interest. Prerequisite: Permission of the department chair.

Police Science (POSC)

POSC 101 (3-3-0) Introduction to Law Enforcement (CRJC 201)
A study of the philosophy and history of law enforcement, including its legal limitations in a democratic republic; a survey of the primary duties and responsibilities of the various law enforcement agencies; a delineation of the basic processes of justice; an evaluation of law enforcement's current position; and an orientation relative to law enforcement as a vocation. Students who have completed CRJC 201 may not take this course.

POSC 102 (3-3-0) Highway Traffic Administration
An examination of the U.S. transportation system, including a study of complementary agencies that contribute to the effectiveness of operations within the system through the organization and administration of traffic flow regulations, traffic laws, traffic control, accident investigations, traffic courts, and regular operational analyses, with additional attention to the social, economic, and political impacts of the transportation system, including the complementary agencies in their contributory roles.

POSC 111 (3-3-0) Criminal Law (CRJC 300)
A presentation of the basic concepts of criminal law and an evaluation of the merits of rules of law and order in our system of government. Students who have completed CRJC 300 may not take this course.

POSC 210 (3-3-0) Criminal Investigation (CRJC 210)
An introduction to the fundamentals of investigation, including procedures and techniques for conducting crime scene searches; recording, collecting and preserving evidence; identifying, using, and protecting sources of information; conducting interviews and interrogations; preparing cases and making court presentations; and investigating specific criminal offenses. Students who have completed CRJC 210 may not take this course.

POSC 221 (3-3-0) Introduction to Criminalistics (CRJC 221)
A general survey of the methods and techniques used in modern scientific investigations of crimes, with emphasis on practical applications of demonstrated laboratory techniques.
and the use of available scientific equipment. Students who have completed CRJC 221 may not take this course.

POSC 230 (3-3-0) Criminal Evidence (CRJC 230)
A study of the kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Students who have completed CRJC 230 may not take this course.

POSC 232 (3-3-0) Police Organization and Administration
An introduction to the principles of police organization and administration, with special attention to the service functions; e.g., personnel management, police management, training, communications, records, property maintenance, and miscellaneous services.

POSC 241 (3-3-0) Crime Scene Technology
A review of processes governing the search for physical evidence, with emphasis on the location, reproduction, identification, collection, and preservation of evidence, and of the transportation of evidence to the crime laboratory, with laboratory situations providing practical experiences in applications of techniques and procedures studied.

POSC 251 (3-3-0) Criminal Procedures
A review of criminal procedures from incident to final disposition and a survey of the principles of constitutional, federal, state, and civil laws relative to law enforcement.

POSC 262 (3-3-0) Police Community Relations (CRJC 262)
A course in the development and use of community relations programs to aid and support the police, corrections programs, and the criminal justice system as a whole in their promotion of an orderly society. Students who have completed CRJC 262 may not take this course.

POSC 400 (3-3-0) Seminar in Criminal Interrogation and Confessions
A study of criminal interrogations and confessions, including such aspects as warning the subject, the Fourth Amendment Right of Privacy, the attitude of the interrogator, the classification of suspects for interrogation, tactics at interrogations, the interrogation of witnesses who may later become suspects, psychological tools to be used in extracting a confession from an unwilling suspect, procedures for reading suspects their rights and for informing them of those rights, the laws governing the admissibility of confessions in court, the use of trickery and deceit, and the latest laws-both federal and state-regarding, confessions and interrogations. Prerequisites: POSC 101, or CRJC 201 and CRJC 300.

Physical Science (PSCI)

PSCI 111 (4-3-2) Physical Science I
An introduction to the principles, concepts, and ideas of the physical sciences (physics, chemistry, astronomy, geology, meteorology, and oceanography), including lectures, discussions, and laboratory sessions devoted to physics and chemistry, with opportunities for making observations, developing problem-solving techniques, and using reasoning skills in guided applications of the scientific method. Pre- or Corequisite: MATH 123 or higher.

PSCI 112 (4-3-2) Physical Science II
A continuation of the principles, concepts, and ideas begun in Physical Science I, including lectures, discussions, and laboratory sessions devoted to astronomy, geology, meteorology, and oceanography, with opportunities for making observations, developing problem-solving techniques, and using reasoning skills in guided applications of the scientific method. Prerequisite: PSCI 111.

Psychology (PSYC)

PSYC 210 (3-3-0) General Psychology
An introduction to the study of psychology as a science and the application of the scientific method in the understanding of behavior, with emphasis on such behavioral phenomena as learning, motivation, emotions, memory and problem solving, personality and development, behavior disorders, and psychotherapy.

PSYC 233 (4-3-1) Statistics for Psychology
Basic statistical theory and techniques appropriate to psychology and related fields; introduction to statistical inference and the testing of hypotheses. This course includes a lab which incorporates the use of computer packages for statistical analyses. Prerequisites: PSYC 210 and MATH 123.

PSYC 250 (3-3-0) Current Topics in Psychology
A study of current topics in psychology, with an emphasis on topics related to current research. Prerequisite: PSYC 210 or consent of the instructor.

PSYC 260 (3-1-2) Computer Applications for Behavioral Sciences
An introduction to microcomputers stressing the hands-on use of basic applications to include word processing, spreadsheets, and databases in a Windows environment. The course will emphasize the use of these tools in preparing documents integrating the three applications.

PSYC 290 (3-3-0) Psychology of Personal Adjustment
A study of coping mechanisms and adjustment strategies for meeting the everyday demands of life and dealing with special psychological problems, such as stress, depression, anxiety, deviant sexual behavior, sexual dysfunction, and other everyday problems. Prerequisite: PSYC 210.

PSYC 310 (3-3-0) Theories of Personality
An investigation of theories concerning the development and functioning of the normal personality, with attention to empirical findings related to individual adjustment or maladjustment. Prerequisite: PSYC 210.
PSYC 320 (3-3-0) Theories of Learning
A review of major theories of human and animal learning and motivation, with emphasis on individual and environmental factors affecting learning and performance in various contexts, including experimental and educational settings. Prerequisite: PSYC 210.

PSYC 331 (3-3-0) Developmental Psychology
An introduction to developmental psychology, focusing on the period from conception through adolescence, with emphasis on developmental principles and theories in the areas of cognitive, emotional, social, personality, and physical development. Prerequisite: PSYC 210.

PSYC 332 (3-3-0) Psychology of Aging
An introduction to adult development and human aging, including a survey of major developmental principles, theories, and current research in the areas of biological, cognitive, social, personality, and emotional development. Prerequisite: PSYC 210.

PSYC 342 (3-3-0) Introduction to Clinical and Counseling Psychology
A survey of the history, theories, and applications of clinical and counseling psychology, with an emphasis on analyses of the various approaches to counseling and therapy. Prerequisite: PSYC 210.

PSYC 343 (3-3-0) Multicultural Psychology
A study of the development of ethnic psychology, with emphasis on related theories and research and on the interactions of ethnic Americans with educational, political, religious, and social institutions. Prerequisite: PSYC 210.

PSYC 350 (3-3-0) Industrial and Organizational Psychology
A study of psychological factors influencing performance in work settings, especially group processes, employee motivation, leadership, selection, and training, with additional emphasis on the analysis and design of jobs and organizations. Prerequisite: PSYC 210.

PSYC 352 (4-3-1) Research Methodology
A lecture and laboratory course covering the design, analysis, implementation, and interpretation of experimental research in areas of general psychology, such as learning, memory, and perception, and in social psychology. Prerequisite: PSYC 233.

PSYC 360 (3-3-0) Social Psychology
A study of individual behavior influenced and affected by social factors, with emphasis on socialization, attitude formation, and change, with additional attention to interpersonal attraction, leadership, and other behaviors in group settings. Prerequisite: PSYC 210.

PSYC 365 (3-3-0) Health Psychology
An examination of the links between medicine and psychology, including the relevance of biological, personal, cognitive, developmental, social, environmental, and cultural variables to health and illness. Health, illness, health and illness behavior will be studied with the aim of greater understanding of health issues and the individuals' relationship to these issues within individual, cultural and cross-cultural contexts. Prerequisites: PSYC 210.

PSYC 370 (3-3-0) Physiological Psychology
Background and contemporary research relating behavior to biological processes. Data on neural and hormonal systems are summarized and used in examining such complex behaviors as learning, perception, and motivation. Prerequisite: PSYC 210.

PSYC 380 (3-3-0) Behavior Modification
A study of applications of learning theories and laboratory findings to behavior problems in educational, clinical, and social settings, with emphasis on empirical research demonstrating the effectiveness of behavior modification and cognitive/behavioral techniques. Prerequisite: PSYC 320 or consent of the instructor.

PSYC 381 (3-3-0) Child Psychopathology
A survey of factors affecting psychological development from infancy through adolescence, with emphasis on conceptual models, assessment approaches, and treatment of abnormalities. Prerequisite: PSYC 331.

PSYC 390 (3-3-0) Psychological Tests and Measurements
A survey of the major methods of evaluating and comparing psychological and physical abilities, including methods of measurement, basic statistical concepts relative to evaluation, and applications of psychological testing. Prerequisite: PSYC 233 or an equivalent statistics course.

PSYC 400 (3-3-0) History and Systems of Psychology
A survey of the development of psychology in historical and socio-cultural perspective. A review of the major historical and contemporary systems of psychology, and their relation to the philosophy of science and to the selection of problems and methodologies. Prerequisites: PSYC 210 and 9 additional semester hours in psychology.

PSYC 420 (3-3-0) Sensation and Perception
A study of the structures and functions of the sensory systems, with particular attention to perceptual processes influenced and affected by physical factors in the environment and by psychological aspects of the perceiving organism. Prerequisite: PSYC 370, or consent of instructor.

PSYC 421 (3-3-0) Cognitive Psychology
A study of theoretical approaches and research findings relevant to the complex processes of thinking, linguistic expression, problem solving, and decision making, with attention to the relation of these processes to intelligence and creativity. Prerequisite: PSYC 210.
PSYC 422 (3-3-0) Abnormal Psychology
A survey of disturbances of personality and behavior and of the major viewpoints regarding causes, prevention, and treatment. Prerequisite: PSYC 210.

PSYC 430 (3-3-0) Advanced Seminar: Sex and Gender
This senior seminar will explore how various areas of psychology conceptualize and investigate the relationship between sexuality and gender. The study of gender/sexual relations will be approached from many different perspectives, including individual, social, cultural, historical, and biological. Sources will include journal articles, books, and fictional stories. Prerequisite: PSYC 352.

PSYC 460 (3-3-0) Senior Seminar
A study of selected contemporary topics examining the functional interrelationships of research, theory, and/or application within the various areas of psychology. Prerequisite: Senior psychology major or permission of instructor.

PSYC 485 (3-3-0) Individual Topics in Psychology
Systematic review of various topics on issues of psychological relevance, such as stress management, and sexual reinstatement. Prerequisite: Permission of the instructor and department chair.

PSYC 489 (3-3-0) Independent Study I
Supervised laboratory, laboratory, and/or field research in psychology on a topic of choice of a student. Prerequisite: Permission of instructor and department chair.

PSYC 491 (3-3-0) Independent Study II
Supervised laboratory, laboratory, and/or field research in psychology on a topic of choice of a student. Prerequisite: Permission of instructor and department chair.

Reading (READ)

READ 112 (3-3-0) Foundations of Reading Instruction
An introduction to reading from perspectives of history, sociology, and psychology, emphasizing factors involved in facilitating learning to read as a developmental process.

READ 211 (1-1-0) Field Experiences in Reading I
Observational experience in the public school related to the teaching of reading, the management of reading groups, the assessment of oral and silent reading habits of children, the evaluation and selection of reading materials, and the development of reading centers.

READ 311 (1-1-0) Field Experiences in Reading II
Practical experience in the public school including limited teaching of reading, tutoring, and working with reading materials and resources. In conjunction with READ 315: Teaching of Reading in the Elementary School.

READ 312 (1-1-0) Field Experiences in Reading III
Practical experience in working with skills deficient readers in a public school setting and/or in the College Reading Laboratory.

READ 315 (3-3-0) Teaching Reading in the Elementary School
An introduction to the basics of reading instruction, with emphasis on reading readiness, the initial stages of reading development, and primary and intermediate reading programs. Prerequisite: Admission to teacher education. (Fall, Spring)

READ 316 (3-3-0) Corrective and Remedial Reading
A course in the prevention, diagnosis, and correction of reading difficulties. Prerequisite: READ 315.

READ 320 (3-3-0) Teaching Reading in the Content Areas
A study of methods, materials, classroom procedures, and evaluation techniques for facilitating reading in the content areas in middle and secondary schools. (Fall, Spring)

READ 350 (3-3-0) Teaching of Reading in Content Area (K-6)
A study of methods, materials, classroom procedures, and evaluation techniques for facilitating reading in the content areas in the elementary schools.

READ 362 (3-3-0) Evaluation and Selection of Textbooks
A study of criteria for the evaluation and selection of textbooks for elementary and secondary school levels.

READ 370 (3-3-0) Linguistics and Reading
An examination of linguistic applications to the teaching of reading, with attention to language meanings and language signals in relation to reading elements: phonics, phonetics, phonemics, and the alphabet.

READ 380 (3-3-0) Practicum in Teaching Reading to Adult Non-Readers
A practical course in assessing the reading needs of adult non-readers and in designing remedial programs to address reading deficiencies.

READ 390 (3-3-0) Methods and Materials in Teaching Reading
A study of reading problems, materials, methods, and instructional media basic to the effective teaching of reading.

READ 400 (3-3-0) Practicum in the Correction of Reading and Related Disorders
A clinical experience in diagnosing reading problems and deficiencies of disabled readers, with emphasis on methods of assessing disabled readers, writing reports and lesson plans according to assessed needs, and tutoring. Prerequisite: READ 390.

READ 420 (3-3-0) Strategies for Teaching Reading to Slow Learners
A course examining the characteristics of slow learners, identifying their common reading problems, considering the
factors affecting them, and exploring appropriate strategies for teaching the slow learner effective reading skills.

**READ 421 (3-3-0) Teaching Reading to Reluctant Adolescents**
A course examining ways to motivate and teach adolescents lacking an interest in learning to read, with attention to developing basic vocabulary, comprehension, and study skills through the use of reading in the content areas.

**READ 422 (3-3-0) Teaching Reading to Culturally Diverse Children**
An examination of materials and approaches for teaching reading effectively in a multicultural setting.

**READ 440 (3-3-0) Review of Research in Reading**
A survey of contemporary reading research and its relation to practical classroom situations. Prerequisites: READ 315 and/or READ 320.

**READ 441 (3-3-0) The Psychology of Reading**
A study of learning theories related to the process of reading, with emphasis on language development, including linguistic, cognitive, perceptual, and sensory aspects, and the relationship of language development to reading growth and development. Prerequisites: READ 315 or READ 320.

**READ 490 (3-3-0) Seminar in Reading**
Analyses of problems, issues, and trends in reading education. Prerequisites: READ 315 and 320.

**Recreation (RECR)**

**RECR 200 (3-3-0) Program Planning in Urban Recreation**
A course in the development of recreation program activities for all age groups, including consideration of facilities and equipment, group composition, community resources, and leadership techniques, as well as the role of the supervisor in personnel selection, motivation, and evaluation, and in the planning, organization and operation of a comprehensive program.

**RECR 203 (3-3-0) Introduction to Community Recreation**
A study of the historical, physiological, social, economic, and philosophical foundations of recreation, with emphasis on the theories, objectives, and principles of public, private and commercial recreation programs.

**RECR 300 (3-1-2) Leadership in Supervised Recreation**
Observation of and practical experience in effective supervision of recreation activities and recreation personnel, both professional and volunteer.

**RECR 312 (3-3-0) Organization and Administration in Community Recreation**
A study of the administrative practices, organizational structures, principles, and philosophy of community recreation. Prerequisite: RECR 203.

**RECR 411 (3-3-0) Recreational Practice (Internship)**
An internship experience in recreational practice with public and private agencies. Prerequisite: RECR 200.

**RECR 422 (3-3-0) Camping**
An introduction to fundamentals of planning, organizing, and administering camping programs.

**RECR 430 (3-3-0) Therapeutic Recreational Services**
A study of recreational activities designed to meet the limitations imposed by handicaps or illnesses.

**Religion (RELI)**

**RELI 311 (3-3-0) Introduction to the Bible**
A study of important Biblical writings, with special emphasis on the diverse forms of writings in the Bible, the historical contexts in which specific books were produced and the religious beliefs and values expressed.

**RELI 410 (3-3-0) Religion and Culture**
A study of the relationship between religious beliefs and diverse cultural forms, including art, literature, music, politics, and society, with examinations of non-western as well as of western religious traditions.

**Sociology (SOCI)**

**SOCI 210 (3-3-0) Principles of Sociology**
An examination of the basic concepts and principles of sociology, with emphasis on a scientific analysis of culture, personality, social groups and social institutions, social organizations, population trends, and social processes. (For sociology majors, SOCI 210 is a prerequisite for all sociology courses.)

**SOCI 220 (3-3-0) Contemporary Social Problems**
An analysis of the causes and consequences of current social problems: poverty, urbanization, wars, mental illness, alcoholism, drug addiction, crime and delinquency, environmental concerns, and problems of social institutions.

**SOCI 333 (3-3-0) Introduction to SPSS**
An introduction to the Statistical Package for the Social Sciences, a computer program for data processing and statistical analysis, enabling students without knowledge of programming or without programming aspirations to utilize the computer for scientific research.
SOCI 311 (3-3-0) Culture and Personality
A study of the nature of culture, of the factors of difference in human behavior and personality, and of comparisons of selected preliterate and modern groups with regard to social situations.

SOCI 330 (3-3-0) Marriage and Family Relations
An analysis of the forms and functions of the family, including changing sex roles, marital choice, procreation, and socialization, with emphasis on the history of American family patterns and the effects of contemporary social changes on the family.

SOCI 331 (3-3-0) Social Statistics
An introduction to techniques for the analysis and interpretation of research data, including descriptive statistics (frequency distributions, centrality, variability and correlation measures) and inferential statistics (sampling theories and tests of statistical hypotheses, including the chi square, t tests and analysis of variance). Prerequisites: SOCI 210 and MATH 123, or permission of instructor.

SOCI 335 (3-3-0) Sociological Research Methods
An introduction to the various sociological research methods, with emphasis on research design, questionnaire construction, the construction and use of surveys, uses of available data, methods of collecting and analyzing data, the testing of hypotheses, the drawing of inferences, and the writing of the research report. Prerequisite: SOCI 210 and SOCI 331 or permission of instructor.

SOCI 340 (3-3-0) Crime and Delinquency
A study of the nature of crime and delinquency as forms of deviant behavior, including theories of causation relating to both, with considerations of the justice system for each.

SOCI 350 (3-3-0) History of Sociological Thought
A selective and systematic study of major writings in the development of modern sociological thought, with critical examination of the sociological theories of selected writers.

SOCI 351 (3-3-0) Contemporary Social Theory
A study of the major contemporary sociological theories, with critical analyses of the writings of American social theorists. Prerequisite: SOCI 350.

SOCI 360 (3-3-0) Sociology of Deviant Behavior
A study of the major theories and types of deviant behavior, with critical analyses of society's reactions to such behavior.

SOCI 362 (3-3-0) The Sociology of Religion
A study of the nature of religion, including the societal and cultural dimensions of religion, the role of religion in social change, and the status of religion in contemporary society.

SOCI 370 (3-3-0) The Sociology of The Black Community
A sociological analysis and description of the black community, its socio-historical characteristics, the life styles and socio-cultural patterns within the black community, and the structures and functions of specific social institutions within the black community.

SOCI 372 (3-3-0) Sociology of Education
An examination of education as a social institution, the school as a social system, the teacher as an agent of social change, and social programs as complements of programs in education, with emphasis on current social trends, special problems in teaching today, social factors that influence learning, and the role of education in the status attainment process.

SOCI 375 (3-3-0) Comparative Societies (3-3-0)
A comparative study of human social life. This course presents students with an overview of the major social, cultural, political, economic and other organizational differences among human societies and the transformations that have occurred over the millennia. The major theoretical and empirical works in the field are examined. Prerequisites: Either SOCI 210, POLI 200, or permission of instructor.

SOCI 380 (3-3-0) Sociology of Work
A sociological analysis of the division of labor, labor force trends, career patterns and mobility, and occupational cultures and lifestyles.

SOCI 390 (3-3-0) Social Behavior and Interaction
This course provides an analysis of the major scientific propositions, concepts, research methods, and theories developed to explain the behavior of individuals in relation to other individuals, groups, and culture. Emphasis will be placed on the relationship between social interaction and the behavior of individuals.

SOCI 400 (3-3-0) The Sociology of Gender Roles
A course examining the social determinants of gender role identity, with emphasis on the relationship between gender role identity and personality, personal and professional relationships, work, religion, and general culture, particularly the culture of the United States.

SOCI 410 (3-3-0) Introduction to Gerontology
An introduction to the field of gerontology, with emphasis on the psychological, biological, and sociological processes of aging.

SOCI 412 (3-3-0) Race and Ethnic Relations
A study of the theories and principles of majority minority relations, with emphasis on the status and problems of selected racial, ethnic, and religious minority groups in the United States and elsewhere.
SO CI 422 (3-3-0) Collective Behavior and Social Movements
A study of human behavior as expressed through group behavior, especially the forces that precipitate change in the social order, such as crowds, mobs, mass behavior, public opinion, social movements, revolutions, and social planning.

SO CI 430 (3-3-0) Demography
A study of the distribution, growth, and characteristics of human populations and their relationship to social organization.

SO CI 440 (3-3-0) Sociology of Health
An analysis of the social facets of health and illness, the social functions of health institutions and organizations, the relationship of systems of health care delivery to other social systems, and the social behavior of health personnel and the consumers of health care.

SO CI 442 (3-3-0) Urban Sociology
A study of urbanism as a way of life; the growth and development of urban areas; urban social organization; change and problems of contemporary urban life; ecological patterning; urban planning; and problems of control.

SO CI 462 (3-3-0) Social Stratification
A study of classes, castes, estates, status groups, and social mobility, with an examination of theories of social mobility and a comparison of modes of stratification in selected societies.

SO CI 470 (3-3-0) Social Change
A study of the nature and processes of social change. Topics covered include the theories of social change, industrialization and modernization, planned change, and the social impact of change.

SO CI 475 (3-3-0) Advanced Reading in Theory and Research
This course is designed to enhance students’ understanding of theory and research. It focuses primarily on the conceptualization, formulation, and design of research projects from a specified theoretical paradigm. Prerequisites: SO CI 331, SO CI 335, SO CI 350, SO CI 351 or equivalents, or the consent of the instructor.

SO CI 480 (3-3-0) Sociological Seminar
Readings and discussions on selected problems and issues in sociology, including the various subdivisions within sociology, with particular attention to the relationship between theory and research and an examination of sociology as a profession. Prerequisite: Graduating seniors in their last semester, SO CI 332, SO CI 340, SO CI 350, SO CI 351, or SO CI 390.

SO CI 491 (3-3-0) Independent Study
Supervised library and/ or field research in sociology on a topic of choice of a student. Prerequisite: Permission of department chair.

Spanish (SPAN)

SPAN 110 (3-3-0) Elementary Spanish I
An introduction to the language, literature, and culture of Spanish-speaking peoples, with emphasis on the basic language skills. Laboratory practice required.

SPAN 111 (3-3-0) Elementary Spanish I (Honors)
An introduction to the language, literature, and culture of Spanish-speaking peoples, with treatment in greater breadth and depth than in Spanish I 10. Laboratory practice required. Admission based upon an entrance examination, previous study, and other relevant experiences.

SPAN 120 (3-3-0) Elementary Spanish II
A continuation of studies in the language, literature, and culture of Spanish-speaking peoples begun in SPAN 110, including further development of the basic language skills, with special attention to improving oral language skills. Laboratory practice required. Prerequisite: SPAN 110 or placement examination.

SPAN 121 (3-3-0) Elementary Spanish II (Honors)
A continuation of honors studies in the language, literature, and culture of Spanish-speaking peoples begun in SPAN 111, including further development of the basic language skills, with special emphasis on increasing proficiency in oral language skills. Laboratory practice required. Admission based upon an entrance examination, previous study, and other relevant experience.

SPAN 211 (3-3-0) Intermediate Spanish I
Intermediate level studies of the language, literature, and culture of Spanish-speaking peoples, including further development of the basic language skills, with increased emphasis on reading comprehension and writing in Spanish. Laboratory practice required. Prerequisite: SPAN 120 or placement examination.

SPAN 212 (3-3-0) Intermediate Spanish II
A continuation of intermediate level studies of the language, literature, and culture of Spanish-speaking peoples, including further development of the basic language skills, with special emphasis on idiomatic usages and complex grammatical structures. Laboratory experience required. Prerequisite: SPAN 211 or placement examination.

SPAN 300 (3-3-0) Spanish for Business
An intermediate Spanish course focusing on developing communicative (oral and written) skills applicable to business in Hispanic contexts. Prerequisite: SPAN 212 or consent of instructor.

SPAN 311 (3-3-0) Reading and Conversation in Spanish
A course focusing on increasing fluency in conversational Spanish. Laboratory practice required. Prerequisite: SPAN 212 or placement examination.
SPAN 312 (3-3-0) Spanish Conversation and Composition

A course focusing on developing the level of proficiency in the basic language skills necessary to complete advanced courses taught exclusively in Spanish. Prerequisite: SPAN 311 or placement examination.

SPAN 321 (3-3-0) Spanish Civilization and Culture

A study of the civilization, culture, and history of Spain, with attention to the life, customs, philosophy, art, music, and general patterns of culture of the Spanish people. Taught exclusively in Spanish. Prerequisite: SPAN 312 or consent of instructor.

SPAN 322 (3-3-0) Spanish-American Civilization and Culture

A study of the civilization, culture, and history of Spanish-America, with attention to the life, customs, philosophy, art, music, and general patterns of culture of Spanish American peoples. Prerequisite: SPAN 312 or consent of instructor.

SPAN 331 (3-3-0) Survey of Spanish Literature I

A study of representative Spanish literary works from earliest times to 1700. Taught exclusively in Spanish. Prerequisite: SPAN 321 or consent of instructor.

SPAN 332 (3-3-0) Survey of Spanish Literature II

A study of representative Spanish literary works of the nineteenth and twentieth centuries. Taught exclusively in Spanish. Prerequisite: SPAN 321 or consent of instructor.

SPAN 341 (3-3-0) Survey of Spanish-American Literature I

A survey of Spanish-American literature in the context of historical and social backgrounds, covering the period from colonization to independence. Taught exclusively in Spanish. Prerequisite: SPAN 322 or consent of instructor.

SPAN 342 (3-3-0) Survey of Spanish-American Literature II

A continuation of the survey of Spanish-American literature in the context of historical and social backgrounds, spanning the period from independence to the present. Taught exclusively in Spanish. Prerequisite: SPAN 322 or consent of instructor.

SPAN 411 (3-3-0) The Nineteenth Century Spanish Novel

A study of Spanish novels from the nineteenth and early twentieth centuries, including works by Galdos, Pereda, Blasco-Ibanez, and Pedro de Alcarcon, with attention to the historical and cultural contexts of the readings. Taught exclusively in Spanish. Prerequisite: SPAN 331 or SPAN 332 or consent of instructor.

SPAN 420 (3-3-0) Introduction to Spanish Linguistics I: Phonetics and Phonology

A descriptive and comparative study of the Spanish language and its varieties in Spain and Latin America focusing on the phonetic and phonological components, while establishing contrasts with respective counterparts in the English language, and related pedagogical implications. Taught exclusively in Spanish. Prerequisite: SPAN 312 or consent of instructor.

SPAN 421 (3-3-0) Introduction to Spanish Linguistics II: Morphology, Syntax and Semantics

A comparative study of the morphological, syntactic, and semantic components of the Spanish language while establishing contrasts with respective counterparts in the English language, and related pedagogical implications. Taught exclusively in Spanish. Prerequisite: SPAN 312 or consent of instructor.

SPAN 431 (3-3-0) Drama of the Golden Age

A study of the works of Spain’s leading dramatists of the Golden Age: Lope de Vega, Calderon, Tirso de Molina, and Juan Ruiz de Alarcon. Taught exclusively in Spanish. Prerequisite: SPAN 331 or SPAN 332 or consent of instructor.

SPAN 441 (3-3-0) Cervantes

A study of Cervantes, with analytical reading of Don Quixote and of selected Novelas Ejemplares. Taught exclusively in Spanish. Prerequisites: SPAN 331 or 332 or consent of instructor.

SPAN 451 (3-3-0) Contemporary Spanish Literature

A study of major literary works in Spanish, from the Generation of 1898 to the present, with attention to literary trends and cultural influences that contributed to the shaping of the literature. Taught exclusively in Spanish. Prerequisite: SPAN 331 or 332 or consent of instructor.

SPAN 461 (3-3-0) Studies in Latin American Theater and Poetry

A study of the developments in Latin American drama and poetry, with emphasis on changes occurring in the literature during the twentieth century. Taught exclusively in Spanish. Prerequisite: SPAN 341 or 342 or consent of instructor.

SPAN 471 (3-3-0) Studies in Latin American Prose Fiction

A study of representative twentieth century novels and short stories by Latin American writers. Taught exclusively in Spanish. Prerequisite: SPAN 341 or 342 or consent of instructor.

SPAN 481 (3-3-0) Seminar

Critical analysis of specific topics including Hispanic culture and/or Spanish literature and/or Spanish linguistics. Taught exclusively in Spanish. Prerequisite: Completion of all 400-level courses required and the consent of instructor(s).
Special Education (SPED)

SPED 320 (3-3-0) Education of the Exceptional Child
A survey of the abilities and disabilities and the inter-and intra-individual differences of exceptional children, with emphasis on the impact of educational and psychological handicaps and needs of exceptional children as well as on plans and education programs to facilitate the learning of the exceptional child.

SPED 350 (3-3-0) Mainstreaming Exceptional Students
A comprehensive introduction to mainstreaming exceptional students, with emphasis on the components and regulations involved in designing an Individual Education Program (IEP) for exceptional students, with opportunities for supervised experiences in the Curriculum Learning Resource Center, and with attention to the development of annual goals, short term objectives, and evaluation methods.

SPED 370 (3-2-1) Curriculum Development, Methods, and Materials for Exceptional Students
A comprehensive methods course directed to the needs of exceptional students, providing training and experience in teaching methods and materials best suited for each area of mild/moderate exceptionality, with emphasis on the implementation of innovative techniques and materials modifications.

SPED 410 (3-3-0) Classroom Management Strategies for Exceptional Children
A practical course in the theories and applications of disciplinary practice suitable to exceptional children, with emphasis on the developmental stages of discipline, on the development of the teacher as an effective communicator and problem-solver, and on the implementation of appropriate strategies of classroom management.

SPED 420 (3-3-0) Introduction to the Education of the Emotionally Disturbed
An overview of the education of emotionally disturbed students, with emphasis on the psychological, sociological, and educational implications of their education.

SPED 430 (3-3-0) Introduction to the Education of the Learning Disabled
An introductory course analyzing the inter-and intra-individual differences of the learning disabled, with consideration of theories, identification, procedures, teaching strategies and materials, and developmental processes relative to the education of the learning disabled.

SPED 440 (3-3-0) Introduction to the Education of the Educable Mentally Retarded
An introduction to the study of retarded individuals, including characteristics, behavior, general nature, and needs in the home, the community, and the learning environment, with emphasis on identification procedures, teaching and organizational practices, educational methodology and materials, and prevention, as well as on the psychological, sociological, educational, and medical aspects of mental retardation.

SPED 450 (3-3-0) Introduction to the Education of the Gifted and Talented
An overview of teaching methods and materials used with gifted and talented students, with attention to the inter-and intra-individual differences, methods of identification, cognitive and affective development, special abilities, and differentiated curricula of academically gifted and talented students.

SPED 460 (3-2-1) Diagnosis and Evaluation of Exceptional Children
A survey of the major tests and inventories used in evaluating exceptional children, focusing on broad developmental and interactional types of measurement, basic statistical concepts, the interpretation of scores, and the relationship between information gained from tests and inventories and classroom diagnostic-prescriptive procedures.

SPED 470 (3-6-0) Student Teaching in Exceptional Education
This is a supervised basic field experience course requiring a concentrated significant teaching experience in an exceptional children's educational setting with one or more types of Specialty Area students. Offered for variable credits (3-6 credits). For most students, the course is six semester-hour credits and requires ten weeks, 300 clock hours of field experience. Student who are already certified in exceptional children may take a three semester-hour field experience.

SPED 480 (2-0-2) Seminar II: The Exceptional Student Field Experience
A clinical field experience with an accompanying seminar for teachers of exceptional students, including observations and tutoring as well as discussions of current issues, problems, and questions related to exceptional students.

Speech (SPEE)

SPEE 200 (3-3-0) Introduction to Speech
An introduction to the development of effective oral communication through instruction in theory and practice of the principles and skills required in common types of speaking situations. Basic skills in audience analysis, research, organization, outlining, utilizing evidence, reasoning, listening, and verbal/non-verbal expression are developed. Various methods of delivery are examined and practiced. Students may enroll in SPEE 200 and ENGL 120 at the same time, but cannot enroll in SPEE 200 prior to enrolling in ENGL 120.

SPEE 201 (1-0-3) Speech/Theatre Activities
Performance laboratories in practical training through participation in departmental activities. Students may enroll for no more than one (1) credit in a single semester. This course is to be repeated four times for Speech/Theatre
majors. Majors must enroll for one hour in the following three concentrations: Telecommunications, Speech, and Theatre. The fourth may be in any of the concentrations.

SPEE 210 (3-3-0) Interpersonal Communication
A study of the process of communication, including functions, models, and theories, with an emphasis on self-disclosure, empathic listening, relational communication, and conflict management.

SPEE 211 (3-3-0) Phonetics
A study of the production and transcription of phonetic symbols used in the International Phonetic Alphabet, with attention to general American speech and Career speech. Prerequisite SPEE 200 or consent of the instructor.

SPEE 212 (3-3-0) Voice and Diction
A study of proper breathing for good voice production, pause, stress, intonation, and control of resonance. Emphasis is placed on improving phonation, enunciation, and articulation. Prerequisite SPEE 200 or consent of the instructor.

SPEE 240 (3-3-0) Introduction to Communicative Disorders
A survey of communicative disorders, their manifestations, and the strategies used by professionals in working with persons with communicative disorders. Prerequisite SPEE 200.

SPEE 310 (3-3-0) Public Speaking
A study of the principles of effective public communication, focusing on speech preparation and design, audience analysis, and speech presentation in a variety of public situations. Prerequisite SPEE 200 or consent of the instructor.

SPEE 311 (3-3-0) Oral Interpretation
A study of the principles and techniques required to becoming proficient as an interpretative artist, with special emphasis on interpretations of prose, poetry, and drama, and on preparations for interpretative reading contests and other events.

SPEE 321 (3-3-0) Group Discussion
Training and practice in the effective exchange of opinions on selected topics, with emphasis on studying group interactions during the process of discussion and observing the effects of parliamentary procedures on the conduct of groups in discussion. Prerequisite SPEE 200 or consent of the instructor.

SPEE 340 (3-3-0) Language Development
A study of the development of speech and language in young children, with emphasis on theories of speech and language development and on the acquisition and refinement of speech patterns.

SPEE 401 (3-3-0) Argumentation and Debate
A study of the process of argumentation, with special attention to the structure of argument, reasoning, and the nature of evidence. Prerequisite SPEE 310 or consent of the instructor.

SPEE 402 (3-3-0) Basic Speech and Hearing Science
A study of sound and speech production, transmission, interference, and reception, with emphasis on the physical attributes of sound duration, intensity, frequency, and on psychological auditory phenomena. Prerequisite SPEE 211 or consent of the instructor.

SPEE 413 (3-3-0) Anatomy and Physiology of the Speech and Hearing Mechanism
A study of the anatomical structures and the physiological processes required in the production and reception of speech. Prerequisites: SPEE 211 and SPEE 300 or consent of the instructor.

SPEE 420 (3-3-0) Senior Seminar
A study of selected topics in speech and theatre, with completion of a major research project required. Prerequisite Senior Standing.

SPEE 430 (3-3-0) Intercultural Communication
The course provides basic principles and rules for understanding intercultural communication and provides instruction on how to apply the principles when communicating in intercultural situations. The course also provides a wide range of examples and cases of communication practices in different cultures to increase the student’s knowledge base about communication diversity in the world. Prerequisites: SPEE 200 and COMM 205.

Statistics (STAT)

STAT 202 (3-3-0) Basic Probability and Statistics
An introduction to the study of probability and statistical inference. Prerequisite MATH 123 or consent of the department.

STAT 301 (3-3-0) Introduction to Probability
An introduction to the mathematical theory of probability, including such topics as random variables, distributions (normal, binomial, Poisson, and related ones), moment generating functions, and applications of probability theory. Prerequisite MATH 241.

STAT 302 (3-3-0) Mathematical Statistics
A study of probability distributions of random samples, the theory of point and interval estimation, hypothesis testing, and decision theory concepts. Prerequisite STAT 301.

STAT 400 (3-3-0) Applied Statistics
A course incorporating the use of statistical software packages and including discussions of such topics as descriptive statistics, statistical inference, inference from a single sample, samples from two populations, one-way analysis of variance, linear regression and correlation, multiple regression, two-way analysis of variance, fixed
effects models, factorial designs, and hierarchical or nested design. Prerequisite: Junior standing or consent of instructor.

**STAT 401 (3-3-0) Intermediate Probability**
An intermediate-level study of such topics as conditional probability, basic classical theorems, methods of convergence, central limit theorem, and characteristic functions. Prerequisite: STAT 301 or permission of the department.

**STAT 402 (3-3-0) Intermediate Statistics**
An intermediate-level course including such topics as the axiomatic treatment of the fundamentals of probability and distribution theory, characteristic functions (random variables, convergence, and approximation), and common distributions. Prerequisites: STAT 301 or equivalent.

**STAT 412 (3-3-0) Operations Research**
A review of topics pertaining to deterministic and probabilistic models of operations research, including linear programming, queuing theory, inventory models, and Markov chains. Prerequisite: STAT 301.

**STAT 421 (3-3-0) Quality Control**
A study of the construction of control charts for variables, attributes, and tolerances; sampling techniques; and current techniques in quality control methodology. Prerequisite: Junior standing or consent of instructor.

**STAT 422 (3-3-0) Statistical Methods for Research**
A course incorporating the use of statistical software packages for the study of probability distributions, measurements of precision and accuracy, control charts, confidence intervals, tests of significance, analyses of variance, multiple correlation and regression, design and analysis of experiments. Prerequisite: STAT 301 or equivalent.

**Social Work (SWRK)**

**SWRK 220 (3-3-0) Introduction to Human Services**
A course introducing the theoretical concepts, policies, programs, roles, goals, and historical development of human services. The course examines issues, causes, and solutions to human services problems within the fields of social work, criminal justice, psychology, and sociology, with emphasis on human relationship skills fundamental to social work.

**SWRK 230 (3-3-0) Introduction to Social Work**
A study of the historical development of social welfare, social work, and various social services. The course will also focus on the nature, causes, and extent of major social problems, and will provide case examples of how people are affected by such problems. Emphasis will be placed on various counseling techniques, analysis of social policy issues, and the roles, functions, and responsibilities of the social work domain.

**SWRK 330 (3-3-0) Human Behavior and the Social Environment**
This course provides an understanding of the developmental stages of the individual and the relationship between human growth, development and the environment. Knowledge and understanding of biological, psychological and social systems relationships; cultural norms; and the significance of interaction with the family, group and the community are stressed. Prerequisite: SWRK 230.

**SWRK 340 (3-3-0) Social Welfare Policy and Services**
The course will focus on the historical, philosophical and political development of the social welfare system in the United States, including current policies and programs. The course will provide an examination of policies, processes and issues associated with decision-making and services within the welfare sector. Prerequisite: SWRK 230.

**SWRK 400 (3-3-0) Interviewing Skills**
An introduction to the interviewing process as a basic tool in social work practice, with emphasis on understanding and using a variety of techniques, methods, and skills in conducting social work interviews, understanding one's self as the interviewer, understanding attitudes in the interview process, and understanding the implications of cultural backgrounds in the interview results.

**SWRK 410 (3-3-0) Social Work Practice**
A course designed to provide an analysis of the theoretical, methodological and practical knowledge necessary for entry-level practice in social work. Issues and topics covered include interviewing skills, group work, community practice, assessment, cross-cultural social work, contemporary theories of counseling and working with systems. Prerequisites: SWRK 230, SWRK 330, SWRK 340, seniors minorin in social work or consent of instructor.

**SWRK 425 (3-3-0) Social Work with Families**
A course incorporating the study and analysis of problems and concerns faced by social workers in working effectively with families, including the integration of social work policy, human behavior and social work practice. Issues covered include functions and changes in the family and the theoretical framework of family systems theory, systems theory, and the ecological treatment and modalities. Prerequisites: SWRK 230, SWRK 330, SWRK 340, senior standing and consent of the instructor.

**SWRK 450 (3-3-6) Field Practicum**
A seminar course and supervised field experience in selected human service agencies in the application of social work principles, knowledge and techniques to various areas of social services with supervision and evaluation under the direction of the instructor and various agency field instructors in the community. Prerequisites: SWRK 230, SWRK 330, SWRK 340, SWRK 410, senior standing and consent of the instructor.

**Theater (THEA)**

**THEA 203 (3-3-0) Introduction to Theatre**
An introduction to the study of drama and to the art and craft of the theatre, with special attention to the role of the theatre in modern society. Work with FSU Theatre Company productions.
THEA 221 (3-3-0) History of the Theatre I
An historical survey of the development of the theatre from its origins to 1650, including studies of representative dramas in their cultural contexts, with analyses of the audiences, actors, and patrons; physical conditions and architecture; and the relationship of the theatre to the other arts.

THEA 222 (3-3-0) History of the Theatre II
A continuation of the history of theater from 1650 to the present.

THEA 306 (3-2-2) Fundamentals of Acting
A study of the fundamentals and techniques of acting, including creative techniques in scene study from representative plays of the past and present. Work with FSU Theatre Company.

THEA 316 (3-2-2) Introduction to Costume and Make-up
An introduction to the study of historical costumes and theatrical make-up, with applications to stage productions. Work with the FSU Theatre Company.

THEA 320 (3-2-2) Playwriting
Writing for the stage, including plot construction and character development, and the adaptation of playwriting to other media, with the particular attention to television. Prerequisite THEA 203.

THEA 333 (3-2-2) Play Directing
A comprehensive study of the fundamentals of play directing, including composition, picturization, movement, rhythm, and pantomimic dramatization, with additional attention to script analysis, casting rehearsing, and relationships of the director to other theatre practitioners. Work with the FSU Theatre Company.

THEA 334 (3-3-0) Theater Management
A study of the tools of theatre management, with emphasis on box office management, promotion costs, and the responsibilities of production staff. Promotion work with the FSU Theatre Company productions.

THEA 337 (3-1-4) Scene Technology
For stage and studio. Basic theory and practice of scenery and lighting technology for both stage and film/video studio. Lectures and demonstrations are supplemented with practical experience by involvement with the FSU Theatre Company and the Telecommunication Center. Prerequisite Junior status or consent of instructor.

THEA 360
This theatre class is designed as a practical lab in improvisation and performance to include acting tools such as dialects, scene study, pantomime, character analysis, clowning, speech for the actor, period styles of acting, and theatre management will be practiced. This course may be taken once per semester for up to six times. Credit is offered for participation in the FSU Performance Company, whose principal objectives involve refining the drama learning process through performances made available to the county public schools. Offered each fall and spring. Conditions for admittance into the performance company based upon audition. Prerequisite THEA 306 (Beginning Acting), at least a sophomore standing, or permission of the instructor.

THEA 402 (3-1-4) Advanced Acting
A study of the styles of acting, with special emphasis on historical period acting. Completion of THEA 306, Fundamentals of Acting, and ENGL 411, Shakespeare, recommended before taking THEA 402. Work with the FSU Theatre Company.

THEA 403 (3-2-2) Scene Design
History and principles of designing the environment for stage and studio productions. Work with the FSU Theatre Company and TV studio productions where applicable. Prerequisite THEA 337.

THEA 411 (3-3-0) Children’s Theatre for School and Community
A study of materials, procedures, and exercises for creative dramatics, choral speaking, puppetry, and formal dramatics, recommended for prospective and in-service teachers on the elementary level and for community workers with children.

THEA 413 (3-3-0) Drama Theory and Criticism I
A survey of European theories of the drama and the effect of these theories on criticism, dramaturgy, and production from the classical Greek period through the French Academy. Prerequisite Junior standing or consent of instructor.

THEA 414 (3-3-0) Drama Theory and Criticism II
A continuation of THEA 413, beginning with the eighteenth century. Study of the impact that these theories have on criticism, dramaturgy, production, and acting. Prerequisite Junior standing or consent of instructor.

THEA 420 (3-3-0) Afro-American Theater
A study of the theory and practice of African American Theatre, focusing on its evolution as well as the contemporary African American Theatre.

THEA 421 (3-0-6) Play Production
A seminar and laboratory in directing plays, with special emphasis on each student’s directing a one-act play for public presentation. Prerequisite THEA 204 or THEA 333.

University College (UNIV)

UNIV 101 (1-0-3) Freshman Seminar I
The first half of a year-long, interdisciplinary introduction to the university experience, including university history, policies, and resources; reading and study skills; use of electronic mail and the Internet; academic and career planning; money management; and discussions of selected topics in literature, science, business, education,
politics, economics, and philosophy. Based on profile examination scores, students may be required to complete additional work in the Reading Laboratory. All students who enter the university as first time freshmen are required to complete UNIV 101-102.

**UNIV 102 (1-0-3) Freshman Seminar II**

The second half of a year-long, interdisciplinary introduction to the university experience, including university history, policies, and resources; reading and study skills; use of electronic mail and the Internet, academic and career planning; money management; and discussions of selected topics in literature, science, business, education, politics, economics, philosophy, and other topics. Based on profile examination scores, students may be required to complete additional work in the Reading Laboratory. All students who enter the university as first time freshmen are required to complete UNIV 101-102.

**UNIV 110 (2-0-2) University Studies**

An interdisciplinary introduction to the university experience, with emphasis on reading, discussions, and critical assessments of selected topics in literature, science, business, education, politics, economics, and philosophy. Students are introduced to FSU history, policies, procedures, resources, and support services. This course is required of transfer students who enter the university with fewer than 30 transfer credits.

**Zoology (ZOOL)**

**ZOOL 110 (4-3-2) General Zoology**

A study of concepts of animal biology relative to structure, function, ecology, heredity, and embryogenesis, with emphasis on the evolution and characteristics of major animal phyla, and with two (2) hours of laboratory studies relative to basic concepts of animal biology. Prerequisite: BIOL 150.

**ZOOL 210 (3-2-2) Anatomy and Physiology I**

A systematic study of the structures and functions of musculoskeletal, neural, and integumentary systems of the human body, with two (2) hours of laboratory studies on the structures and functions of the human body’s composite systems. Prerequisites: BIOL 110/130 or BIOL 150.

**ZOOL 230 (3-2-2) Anatomy and Physiology II**

A systematic study of the structures and functions of the endocrine, circulatory, digestive, respiratory, excretory, and reproductive systems of the human body, with two (2) hours of laboratory studies on the structure and function of the human body’s composite systems. Prerequisite: ZOOL 210.

**ZOOL 350 (3-2-2) Comparative Anatomy**

A comprehensive study of the anatomy of chordates, with two (2) hours of laboratory studies consisting of anatomical systems of representative chordates. Prerequisite: BIOL 200.

**ZOOL 370 (3-2-2) Vertebrate Physiology**

A study of the functions and functional relationships of organs and organ systems of vertebrates, especially humans, with two (2) hours of laboratory studies consisting of an introduction to laboratory techniques used for studying the physiology of vertebrates. Prerequisite: BIOL 200.

**ZOOL 410 (3-2-2) Principles of Genetics**

A study of the fundamental concepts of heredity common to living organisms, with two (2) hours of laboratory studies consisting of experiments and exercises on biological inheritance, chromosome structure, and detection of gene products. Prerequisites: ZOOL 110 and BOTN 210.

**ZOOL 430 (3-2-2) Animal Development**

A study of principles of animal development, including cellular and tissue assembly, embryogenesis, and reconstitutive development, with two (2) hours of laboratory studies consisting of descriptive and experimental studies of the development of representative vertebrate embryos. Prerequisite: ZOOL 370.

**ZOOL 450 (3-2-2) Histology and Microtechniques**

A study of the microscopic anatomy of cells, tissues, and organs, embracing both morphological and physiological aspects of normal human structures, with two (2) hours of laboratory studies consisting of an introduction to histological techniques employing the use of permanently fixed and stained slides and to the preparation of tissues in a manner suitable for viewing with a compound microscope. Prerequisite: ZOOL 370.

**ZOOL 470 (3-2-2) Introduction to Entomology**

A study of the evolution, anatomy, development, ecology, and systematics of insects, arachnids, and myriapods; the role of insects as vectors of diseases; and the influences of insects on history and culture, with two (2) hours of laboratory studies in insect physiology, morphology, ecology, and behavior, and with an assigned project on the identification of local insects. Prerequisite: ZOOL 110.

**ZOOL 485 (3-2-2) Introduction to Parasitology**

A study of the biology of parasites, their host relationships, and their importance to humankind, unicellular and multicellular parasites of human being and other animals, with two (2) hours of laboratory studies involving including both unicellular and multicellular parasites of human beings and other animals. Prerequisite: ZOOL 110.