

COURSE DESCRIPTIONS

A **prerequisite** course must have been taken and passed before the course named.

A **corequisite** course must be taken with the course named if it has not been previously taken and passed. A corequisite taken during the same semester must start the same date as the course with the requirement.

KEY: CS-Class, LB-Lab, CL-Clinical, CR-Credit

ACA-ACADEMIC RELATED

ACA 111 - College Student Success (1.00 1.00)

This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

ACA 115 - Success & Study Skills (2.00 1.00)

This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

ACA 118 - College Study Skills (1.00 2.00 2.00)

This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

ACA 122 - College Transfer Success (2.00 1.00)

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

ACC-ACCOUNTING

ACC 115 - College Accounting (3.00 2.00 4.00)

This course introduces basic accounting principles for a business. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization.

ACC 120 - Principles of Financial Accounting (3.00 2.00 4.00)

This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations.

ACC 121 - Principles of Managerial Accounting (3.00 2.00 4.00)

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems.

Prerequisite: Take ACC-120(S10290);.

ACC 150 - Accounting Software Applications (1.00 3.00 2.00)

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to accurately solve accounting problems.

Prerequisite: Take ACC-115(S12924) or ACC-120(S10290);.

AGR-AGRICULTURE

AGR 110 - Agricultural Economics (3.00 3.00)

This course provides an introduction to basic economic principles in agriculture. Topics include supply and demand, the role of agriculture in the economy, economic systems, and micro- and macroeconomics. Upon completion, students should be able to explain economic systems, interpret supply and demand curves, and complete cost and revenue production schedules.

AGR 139 - Introduction to Sustainable Agriculture (3.00 3.00)

This course will provide students with a clear perspective on the principles, history and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental and social impacts of agriculture. Upon completion, students will be able to identify the principles of sustainable agriculture as they relate to basic production practices.

AGR 140 - Agricultural Chemicals (2.00 2.00 3.00)

This course covers all aspects of agricultural chemicals. Topics include safety, environmental effects, federal and state laws, pesticide classification, sprayer calibration, and licensing. Upon completion, students should be able to calibrate a sprayer, give proper pesticide recommendations (using integrated pest management), and demonstrate safe handling of pesticides.

AGR 150 - Ag-O-Metrics (3.00 3.00)

This course introduces basic calculations for agricultural applications. Topics include the metric system, land measurement, feed efficiency, rate of gain, chemical calibration, and payroll. Upon completion, students should be able to perform calculations that pertain to agricultural production.

AGR 160 - Plant Science (2.00 2.00 3.00)

This course introduces the basic principles of botany that pertain to agricultural production. Emphasis is placed on the anatomy and physiology of flowering plants. Upon completion, students should be able to identify and explain plant systems.

AGR 170 - Soil Science (2.00 2.00 3.00)

This course covers the basic principles of soil management and fertilization. Topics include liming, fertilization, soil management, biological properties of soil (including beneficial microorganisms), sustainable land care practices and the impact on soils, and plant nutrients. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices.

AGR 180 - Crop Insects & Diseases (2.00 3.00 3.00)

This course includes a study of the major insects and diseases in the southeast. Topics include the structure, life cycle, identification, and control of various insects and diseases. Upon completion, students should be able to identify and recommend methods of control for selected insects and diseases.

AGR 212 - Farm Business Management (3.00 3.00)

This course introduces budgeting, farm analysis, production costs, business organizations, and general management principles. Topics include enterprise budgets, partial budgets, whole farm budgets, income analysis, and business organizations. Upon completion, students should be able to prepare and analyze a farm budget.

AGR 213 - Agricultural Law & Finance (3.00 3.00)

This course covers the basic laws and financial aspects affecting agriculture. Topics include environmental laws, labor laws, contractual business operations, assets, liabilities, networth, and funding sources. Upon completion, students should be able to complete loan application procedures and explain basic laws affecting the agricultural industry.

AGR 214 - Agricultural Marketing (3.00 3.00)

This course covers basic marketing principles for agricultural products. Topics include buying, selling, processing, standardizing, grading, storing, and marketing of agricultural commodities. Upon completion, students should be able to construct a marketing plan for an agricultural product.

AGR 220 - Agricultural Mechanization (2.00 2.00 3.00)

This course is a study of farm machinery and agricultural equipment. Topics include selection and operation of tractors, materials handling equipment, tillage and harvesting equipment, and irrigation systems. Upon completion, students should be able to identify equipment parts and explain the basic principles of machinery operation and management.

AGR 265 - Organic Crop Production: Spring (2.00 2.00 3.00)

This course includes a study of spring organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping procedures for certification. Upon completion, students will be able to demonstrate a knowledge of organic crop production appropriate for the spring season.

ANS-ANIMAL SCIENCE

ANS 110 - Animal Science (3.00 3.00)

This course introduces the livestock industry. Topics include nutrition, reproduction, production practices, diseases, meat processing, sustainable livestock production, and marketing. Upon completion, students should be able to demonstrate a basic understanding of livestock production practices and the economic impact of livestock locally, regionally, state-wide, and internationally.

ANS 115 - Animal Feeds and Nutrition (2.00 2.00 3.00)

This course covers the fundamentals of animal feeding and nutrition. Topics include nutrient requirements, digestion, feed formulation, and classification. Upon completion, students should be able to demonstrate knowledge of nutritional requirements and feeding practices of farm animals.

ANS 120 - Beef Production (2.00 2.00 3.00)

This course provides an introduction to the beef cattle industry. Topics include reproduction, cattle management, marketing, anatomy and physiology, and pasture management (including sustainable practices). Upon completion, students should be able to demonstrate a basic understanding of beef cattle production practices and the economic and environmental impact of the beef cattle industry locally, regionally, state-wide, and internationally.

ANS 130 - Poultry Production (2.00 2.00 3.00)

This course provides an introduction to the poultry industry. Topics include anatomy and physiology, reproduction, incubation, environmental issues, and husbandry. Upon completion, students should be able to demonstrate a basic understanding of poultry production and the economic and environmental impact of the poultry industry locally, regionally, state-wide, and internationally.

ANS 140 - Swine Production (2.00 2.00 3.00)

This course provides an introduction to the swine industry. Topics include basic skills for breeding, farrowing, nursery, environmental issues, and grower/finisher. Upon completion, students should be able to demonstrate a basic understanding of swine production practices and the economic and environmental impact of the swine industry locally, regionally, state-wide, and internationally.

ARC-ARCHITECTURE

ARC 112 - Construction Materials & Methods (3.00 2.00 4.00)

This course introduces construction materials and methodologies. Topics include construction terminology, traditional and alternative materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ART-ART

ART 111 - Art Appreciation (3.00 3.00)

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

ART 114 - Art History Survey I (3.00 3.00)

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

ART 115 - Art History Survey II (3.00 3.00)

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

AST-ASTRONOMY

AST 151 - General Astronomy I (3.00 3.00)

This course introduces the science of modern astronomy with a concentration on the solar system. Emphasis is placed on the history and physics of astronomy and an introduction to the solar system, including the planets, comets, and meteors. Upon completion, students should be able to demonstrate a general understanding of the solar system. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take AST-151A;.

AST 151A - General Astronomy I Lab (2.00 1.00)

The course is a laboratory to accompany AST 151. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 151 and which provide practical experience. Upon completion, students should be able to demonstrate a general understanding of the solar system. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take AST-151;.

AST 152 - General Astronomy II (3.00 3.00)

This course is a continuation of AST 151 with primary emphasis beyond the solar system. Topics include the sun, stars, galaxies, and the larger universe, including cosmology. Upon completion, students should be able to demonstrate a working knowledge of astronomy. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science.

Prerequisite: Take AST-151; Take AST-152A;.

AST 152A - General Astronomy II Lab (2.00 1.00)

The course is a laboratory to accompany AST 152. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 152 and which provide practical experience. Upon completion, students should be able to demonstrate a working knowledge of astronomy. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science.

Prerequisite: Take AST-151; Take AST-152;.

ATR-AUTOMATION-ROBOTICS

ATR 112 - Introduction to Automation (3.00)

This course introduces the basic principles of automated systems and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

Distribution: 3. Offered: 2.

ATR 112 - Introduction to Automation (2.00 3.00 3.00)

This course introduces the basic principles of automated systems and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

BIO-BIOLOGY

BIO 110 - Principles of Biology (3.00 3.00 4.00)

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

BIO 111 - General Biology I (3.00 3.00 4.00)

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

BIO 112 - General Biology II (3.00 3.00 4.00)

This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take BIO-111(S24020);

BIO 140 - Environmental Biology (3.00 3.00)

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science.

BIO 140A - Environmental Biology Lab (3.00 1.00)

This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science.

Prerequisite: Take BIO-140;

BIO 163 - Basic Anatomy & Physiology (4.00 2.00 5.00)

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

BIO 168 - Anatomy and Physiology I (3.00 3.00 4.00)

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

BIO 169 - Anatomy and Physiology II (3.00 3.00 4.00)

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

Prerequisite: Take BIO-168(S11555);

BIO 175 - General Microbiology (2.00 2.00 3.00)

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

Prerequisite: Take BIO-110(S13284) BIO-111(S13307) BIO-163 BIO-165 or BIO-168(S11555);

BIO 242 - Natural Resource Conservation (3.00 3.00)

This course covers the importance of natural resources and their role in our environment. Emphasis is placed on the physical, biological, and ecological principles underlying natural resource conservation with attention to the biological consequences of human impacts. Upon completion, students should be able to demonstrate an understanding of natural resource conservation. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

Prerequisite: Take 1 group; # Take BIO-112(S13261); # Take BIO-140 BIO-140A;

BIO 275 - Microbiology (3.00 3.00 4.00)

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

Prerequisite: Take 1 group; # Take BIO-110(S13284); # Take BIO-111(S13307); # Take BIO-163; # Take BIO-165; # Take BIO-168(S11555);

BPR-BLUEPRINT READING

BPR 111 - Print Reading (1.00 2.00 2.00)

This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.

BPR 130 - Print Reading-Construction (3.00 3.00)

This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floorplans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

BUS-BUSINESS

BUS 110 - Introduction to Business (3.00 3.00)

This course provides a survey of the businessworld. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

BUS 115 - Business Law I (3.00 3.00)

This course introduces the student to the legal and ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

BUS 125 - Personal Finance (3.00 3.00)

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.

BUS 137 - Principles of Management (3.00 3.00)

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

BUS 230 - Small Business Management (3.00 3.00)

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

BUS 240 - Business Ethics (3.00 3.00)

This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and

moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

BUS 253 - Leadership and Management Skills (3.00 3.00)

This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness.

BUS 260 - Business Communication (3.00 3.00)

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the workplace.

Prerequisite: Take ENG-110(S24002) or ENG-111(S24022);.

BUS 285 - Business Management Issues (2.00 2.00 3.00)

This course covers contemporary issues that affect successful businesses and their managers and employees. Emphasis is placed on using case studies and exercises to develop analytical and problem-solving skills, ethics, quality management concepts, team skills, and effective communication. Upon completion, students should be able to apply the specific knowledge and skills covered to become more effective managers and employees.

Prerequisite: Take BUS-137(S12782); Take ACC-115(S20279) BUS-115(S11427) MKT-120(S12573) ECO-251;.

CAR-CARPENTRY

CAR 110 - Introduction to Carpentry (2.00 2.00)

This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods, and safety. Upon completion, students should be able to identify hand and power tools, common building materials, and basic construction methods.

CAR 111 - Carpentry I (3.00 15.00 8.00)

This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision.

CAR 112 - Carpentry II (3.00 15.00 8.00)

This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

Prerequisite: Take CAR-111(S16248); Take 1 group; # Take CAR-111A(L21235); # Take CAR-111B(L21236);.

CAR 113 - Carpentry III (3.00 9.00 6.00)

This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

Prerequisite: Take CAR-111(S10358);.

CAR 115 - Residential Planning/Estimating (3.00 3.00)

This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

Prerequisite: Take BPR-130(S11505);.

CET-COMPUTER ENGINEERING TECHNOLOGY

CET 111 - Computer Upgrade/Repair I (2.00 3.00 3.00)

This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CHM-CHEMISTRY

CHM 092 - Fundamentals of Chemistry (3.00 2.00 4.00)

This course covers fundamentals of chemistry with laboratory applications. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses.

CHM 130 - General, Organic, & Biochemistry (3.00 3.00)

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts.

Prerequisite: Take CHM-130A;.

CHM 130A - General, Organic, & Biochemistry Lab (2.00 1.00)

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130.

Prerequisite: Take CHM-130;.

CHM 131 - Introduction to Chemistry (3.00 3.00)

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science.

CHM 131A - Introduction to Chemistry Lab (3.00 1.00)

This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.

Prerequisite: Take CHM-131;.

CHM 151 - General Chemistry I (3.00 3.00 4.00)

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

CHM 152 - General Chemistry II (3.00 3.00 4.00)

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take CHM-151; Take CHM-092;.

CIS-INFORMATION SYSTEMS

CIS 110 - Introduction to Computers (2.00 2.00 3.00)

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative).

CIS 115 - Introduction to Programming and Logic (2.00 3.00 3.00)

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to use top-down algorithm design and implement algorithmic solutions in a programming language. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative).

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983); # Take DMA-025 DMA-040(S24983); # Take MAT-121(S24993); # Take MAT-171(S24997); # Take MAT-003; # Take BSP-4003;.

CJC-CRIMINAL JUSTICE

CJC 100 - Basic Law Enforcement Training (10.00 30.00 20.00)

This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination.

CJC 110 - Basic Law Enforcement BLET (10.00 30.00 20.00)

This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics include those mandated by North Carolina Administration Code as essential for functioning in law enforcement. Upon completion, the student should be able to demonstrate competence in the topics required for the state comprehensive certification examination.

CJC 111 - Introduction to Criminal Justice (3.00 3.00)

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

CJC 112 - Criminology (3.00 3.00)

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 - Juvenile Justice (3.00 3.00)

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 120 - Interviews/Interrogations (1.00 2.00 2.00)

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 - Law Enforcement Operations (3.00 3.00)

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

CJC 131 - Criminal Law (3.00 3.00)

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 - Court Procedure & Evidence (3.00 3.00)

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 - Corrections (3.00 3.00)

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

CJC 151 - Introduction to Loss Prevention (3.00 3.00)

This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and

associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.

CJC 160 - Terrorism: Underlying Issues (3.00 3.00)

This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning considerations involving threat assessments. Upon completion, students should be able to identify and discuss the methods used in terrorists' activities and complete a threat assessment for terrorists' incidents.

CJC 212 - Ethics & Community Relations (3.00 3.00)

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 - Substance Abuse (3.00 3.00)

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC 214 - Victimology (3.00 3.00)

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

CJC 221 - Investigative Principles (3.00 2.00 4.00)

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222 - Criminalistics (3.00 3.00)

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 223 - Organized Crime (3.00 3.00)

This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

CJC 225 - Crisis Intervention (3.00 3.00)

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.

CJC 231 - Constitutional Law (3.00 3.00)

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CJC 232 - Civil Liability (3.00 3.00)

This course covers liability issues for the criminal justice professional. Topics include civil rights violations, tort liability, employment issues, and other related topics. Upon completion, students should be able to explain civil trial procedures and discuss contemporary liability issues.

CJC 233 - Correctional Law (3.00 3.00)

This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon,

restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

Prerequisite: Take RED-090 or DRE-098(S23587);.

CJC 241 - Community-Based Corrections (3.00 3.00)

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

CJC 255 - Issues in Criminal Justice Application (3.00 3.00)

This course provides an opportunity to exhibit interpersonal and technical skills required for application of criminal justice concepts in contemporary practical situations. Emphasis is placed on critical thinking and integration of theory and practical skills components. Upon completion, students should be able to demonstrate the knowledge required of any entry-level law enforcement officer.

Prerequisite: Take CJC-111 CJC-221 CJC-231;.

CMT-CONSTRUCTION MANAGEMENT

CMT 120 - Codes and Inspections (3.00 3.00)

This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (ADA) building codes. Upon completion, students should understand the building code inspections process and apply building code principles and requirements to construction projects.

COM-COMMUNICATION

COM 231 - Public Speaking (3.00 3.00)

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. This course has been approved for transfer under the CAA/ICAA as a general education course in English Composition. This is a Universal General Education Transfer Component (UGETC) course.

COS-COSMETOLOGY

COS 111 - Cosmetology Concepts I (4.00 4.00)

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

Prerequisite: Take COS-112; Take COS-112;.

COS 112 - Salon I (24.00 8.00)

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

Prerequisite: Take COS-111; Take COS-111;.

COS 113 - Cosmetology Concepts II (4.00 4.00)

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

Prerequisite: Take COS-111 COS-112; Take COS-114(S24639);.

COS 114 - Salon II (24.00 8.00)

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

Prerequisite: Take COS-111 COS-112; Take COS-113(S24638);.

COS 115 - Cosmetology Concepts III (4.00 4.00)

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

Prerequisite: Take COS-111 COS-112; Take COS-116(S24641);.

COS 116 - Salon III (12.00 4.00)

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

Prerequisite: Take COS-111 COS-112; Take COS-115(S24640);

COS 117 - Cosmetology Concepts IV (2.00 2.00)

This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

Prerequisite: Take COS-111 COS-112; Take COS-118(S24643);

COS 118 - Salon IV (21.00 7.00)

This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

Prerequisite: Take COS-111 COS-112; Take COS-117(S24642);

COS 119 - Esthetics Concepts I (2.00 2.00)

This course covers the concepts of esthetics. Topics include orientation, anatomy, physiology, hygiene, sterilization, first aid, chemistry, basic dermatology, and professional ethics. Upon completion, students should be able to demonstrate an understanding of the concepts of esthetics and meet course requirements.

COS 121 - Manicure/Nail Technology I (4.00 6.00 6.00)

This course covers techniques of nail technology, hand and arm surface manipulation, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, surface manipulation, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, surface manipulations, decorating and artificial applications in a salon setting.

COS 121A - Manicure/Nail Technology I (2.00 3.00 3.00)

This course covers techniques of nail technology, hand and arm massage, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, massage, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, massage, decorating, and artificial applications in a salon setting.

COS 222 - Manicure/Nail Tech. II (4.00 6.00 6.00)

This course covers advanced techniques of nail technology and hand and arm surface manipulation. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related

topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations.

Prerequisite: Take COS-121(S24327);.

COS 240 - Contemporary Design (1.00 3.00 2.00)

This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

Prerequisite: Take COS-111 COS-112;.

CSC-COMPUTER SCIENCE

CSC 121 - Python Programming (2.00 3.00 3.00)

This course introduces computer programming using the Python programming language. Emphasis is placed on common algorithms and programming principles utilizing the standard library distributed with Python. Upon completion, students should be able to design, code, test, and debug Python language programs.

CSC 139 - Visual BASIC Programming (2.00 3.00 3.00)

This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved for transfer under the CAA/ICAA as a premajorand/or elective course requirement.

Prerequisite: Take CIS-115(S21061) or ELC-131(S13459);.

CSC 153 - C# Programming (2.00 3.00 3.00)

This course introduces computer programming using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at the beginning level.

CTI-COMPUTER TECH INTEGRATION

CTI 110 - Web, Programming, and Database (2.00 2.00 3.00)

This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language/Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.

CTI 120 - Network and Security Foundation (2.00 2.00 3.00)

This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols.

CTS-COMPUTER INFORMATION TECHNOLOGY

CTS 115 - Information Systems Business Concepts (3.00 3.00)

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

DBA-DATABASE

DBA 110 - Database Concepts (2.00 3.00 3.00)

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

DDT-DEVELOPMENTAL DISABILITIES

DDT 110 - Developmental Disabilities (3.00 3.00)

This course identifies the characteristics and causes of various disabilities. Topics include history of service provision, human rights, legislation and litigation, advocacy, and accessing support services. Upon completion, students should be able to demonstrate an understanding of current and historical developmental disability definitions and support systems used throughout the lifespan.

DFT-DRAFTING

DFT 119 - Basic CAD (1.00 2.00 2.00)

This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings.

DFT 121 - Introduction to GD&T (1.00 2.00 2.00)

This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

DFT 154 - Intro to Solid Modeling (2.00 3.00 3.00)

This course is an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering and analysis of solid models, and creation of multiview drawings. Upon completion, students should be able to use design techniques to create, edit, render and generate a multiview drawing.

DFT 231 - Jig & Fixture Design (1.00 2.00 2.00)

This course introduces the study of jigs and fixtures. Topics include different types, components, and uses of jigs and fixtures. Upon completion, students should be able to analyze, design, and complete a set of working drawings for a jig or fixture.

DFT 254 - Intermediate Solid Modeling & Rendering (2.00 3.00 3.00)

This course presents a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering and analysis of solid model assemblies, and multiview drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly.

Prerequisite: Take DFT-154(S20155);.

DMA-DEVELOPMENTAL MATHEMATICS

DMA 010 - Operations With Integers (0.75 0.50 1.00)

This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions.

DMA 020 - Fractions and Decimals (0.75 0.50 1.00)

This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.

Prerequisite: Take DMA-010;.

DMA 025 - Applications With Real Numbers, (2.25 1.50 3.00)

This course provides a conceptual study of integers, integer operations, the relationship between fractions and decimals, rates, ratios, percents, proportions and related problems. Topics include integer operations and rational numbers, geometric applications, absolute value, exponents, square roots, Pythagorean Theorem, order of operations, rates, ratios, percents, proportions, conversion of English and Metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles, apply the knowledge of the relationships between decimals, fractions, and percents, and use their understanding to solve conceptual application problems.

DMA 030 - Proportion/Ratios/Rates/Percents (0.75 0.50 1.00)

This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.

Prerequisite: Take DMA-010 DMA-020;.

DMA 040 - Expressions, Linear Equations, Linear (0.75 0.50 1.00)

This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030; # Take DMA-025; # Take MAT-060;.

DMA 045 - Linear Equations and Inequalities With (1.50 1.00 2.00)

This course provides a conceptual study of problems involving linear expressions, equations, inequalities, and graphic and algebraic representations of lines. Topics include solving equations, slope, equations of lines, interpretation of basic graphs, linear modeling, and contextual application problems. Upon completion, students should be able to simplify expressions, solve equations and inequalities, create and interpret graphical representation of equations, inequalities, and real world data, and apply this knowledge to real world situations.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030; # Take DMA-025; # Take MAT-060;.

DMA 050 - Graphs and Equations of Lines (0.75 0.50 1.00)

This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983); # Take DMA-025 DMA-040(S24983); # Take MAT-060 DMA-040(S24983);.

DMA 060 - Polynomial and Quadratic Applications (0.75 0.50 1.00)

This course provides a study of problems involving algebraic representations of quadratic equations. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984); # Take MAT-060 DMA-040(S24983) DMA-050(S24984); # Take MAT-060 MAT-070; # Take DMA-025 DMA-040(S24983) DMA-050(S24984); # Take DMA-025 DMA-045; # Take DMA-045 MAT-060; # Take DMA-010 DMA-020 DMA-030 DMA-045;.

DMA 065 - Algebra for Precalculus (2.25 1.50 3.00)

This course provides a study of problems involving algebraic representations of quadratic, rational, and radical equations. Topics include simplifying polynomial, rational, and radical expressions and solving quadratic, rational, and radical equations. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic and rational applications.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984); # Take DMA-025 DMA-040(S24983) DMA-050(S24984); # Take DMA-025 DMA-045; # Take DMA-010 DMA-020 DMA-030 DMA-045;.

DMA 070 - Rational Expressions and Equations (0.75 0.50 1.00)

This course provides a study of problems involving algebraic representations of rational equations. Topics include simplifying and performing operations with rational expressions and equations, understanding the domain, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with rational applications.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S24128); # Take MAT-060 DMA-040(S23170) DMA-050(S23171) DMA-060(S24128); # Take MAT-060

MAT-070 DMA-060(S24128); # Take DMA-010 DMA-020 DMA-030 MAT-070 DMA-060(S24128); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985); # Take DMA-025 DMA-045 DMA-060(S24985); # Take DMA-010 DMA-020 DMA-030 DMA-045 DMA-060(S24985); # Take DMA-045 DMA-060(S24985) MAT-060; # Take DMA-025 DMA-060(S24985) MAT-070;.

DMA 080 - Radical Expressions and Equations (0.75 0.50 1.00)

This course provides a study of problems involving algebraic representations of the manipulation of radical expressions and the application of radical equations. Topics include simplifying and performing operations with radical expressions and rational exponents, solving radical equations, and determining the reasonableness of a solution. Upon completion, students should be able to find algebraic solutions to contextual problems with radical applications.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987); # Take DMA-010 DMA-020 DMA-030 DMA-045 DMA-060(S24985) DMA-070(S24987); # Take DMA-025 DMA-045 DMA-060(S24985) DMA-070(S24987); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987);.

DRA-DRAMA THEATRE

DRA 111 - Theatre Appreciation (3.00 3.00)

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

DRE-DEVELOPMENTAL-READING-ENGLIS

DRE 096 - Integrated Reading and Writing I (2.50 1.00 3.00)

This course is designed to develop proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile (TM) range of 960 to 1115. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs. Please note: (TM) stands for registered trademark.

DRE 097 - Integrated Reading and Writing II (2.50 1.00 3.00)

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught at a reinforcement level using texts primarily in a Lexile (TM) range of 1070 to 1220. Upon completion, students should be able to demonstrate and apply those skills toward understanding a variety of complex academic and career texts and composing essays incorporating relevant, valid evidence. Please note: (TM) represents registered trademark.

Prerequisite: Take DRE-096(S23641);.

DRE 098 - Integrated Reading and Writing III (2.50 1.00 3.00)

This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are taught using texts primarily in the Lexile (TM) range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. Note: (TM) represents a registered trademark.

Prerequisite: Take DRE-097(S23586);.

ECO-ECONOMICS

ECO 251 - Principles of Microeconomics (3.00 3.00)

This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

ECO 252 - Principles of Macroeconomics (3.00 3.00)

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

ELC-ELECTRICAL

ELC 117 - Motors and Controls (2.00 6.00 4.00)

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC 128 - Introduction to Programmable Logic (2.00 3.00 3.00)

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.

ELC 131 - Circuit Analysis I (3.00 3.00 4.00)

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELN-ELECTRONICS

ELN 131 - Analog Electronics I (3.00 3.00 4.00)

This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

Prerequisite: Take ELC-131(S23482);.

ELN 133 - Digital Electronics (3.00 3.00 4.00)

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration(LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

ELN 232 - Introduction to Microprocessors (3.00 3.00 4.00)

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

ELN 234 - Communication Systems (3.00 3.00 4.00)

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

Prerequisite: Take ELN-131(S23487) or ELN-137;.

ELN 260 - Prog Logic Controllers (3.00 3.00 4.00)

This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions.

EMS-EMERGENCY MEDICAL SCIENCE

EMS 110 - EMT (6.00 6.00 3.00 9.00)

This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT certification.

EMS 122 - EMS Clinical Practicum I (3.00 1.00)

This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students should be able to demonstrate competency with fundamental paramedic level skills.

Prerequisite: Take EMS-110(S25182);.

EMS 130 - Pharmacology (3.00 3.00 4.00)

This course introduces the fundamental principles of pharmacology and medication administration and is required for paramedic certification. Topics include medical terminology, pharmacological concepts, weights, measures, drug calculations, vascular access for fluids and medication administration and legislation. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.

Prerequisite: Take EMS-110(S25182);.

EMS 131 - Advanced Airway Management (1.00 2.00 2.00)

This course is designed to provide advanced airway management techniques and is required for paramedic certification. Topics must meet current guidelines for advanced airway management in the pre-hospital setting. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.

Prerequisite: Take EMS-110(S25182);.

EMS 160 - Cardiology I (2.00 3.00 3.00)

This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and rhythm interpretation. Upon completion, students should be able to recognize and interpret rhythms.

Prerequisite: Take EMS-110(S25182);.

EMS 220 - Cardiology II (2.00 3.00 3.00)

This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, cardiac pharmacology, and patient care. Upon completion, students should be able to manage the cardiac patient.

Prerequisite: Take EMS-122(S25185) EMS-130(S25187) EMS-160(S25189);.

EMS 221 - EMS Clinical Practicum II (6.00 2.00)

This course provides clinical experiences in the hospital and/or field. Emphasis is placed on increasing the proficiency of students' skills and abilities in patient assessments and the delivery of care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

Prerequisite: Take EMS-121(S25184) or EMS-122(S25185);.

EMS 231 - EMS Clinical Practicum III (9.00 3.00)

This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

Prerequisite: Take EMS-221(S25191);.

EMS 235 - EMS Management (2.00 2.00)

This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.

EMS 240 - Patients With Special Challenges (1.00 2.00 2.00)

This course includes concepts of crisis intervention and techniques of interacting with patients with special challenges and is required for paramedic certification. Topics include appropriate intervention and interaction for neglected, abused, terminally ill, chronically ill, technology assisted, bariatric, physically challenged, mentally challenged, or assaulted patients as well as behavioral emergencies. Upon completion, students should be able to recognize and manage the care of patients with special challenges.

Prerequisite: Take EMS-122(S23872) EMS-130(S23874);.

EMS 241 - EMS Clinical Practicum IV (12.00 4.00)

This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.

Prerequisite: Take EMS-231(S25192);.

EMS 250 - Medical Emergencies (3.00 3.00 4.00)

This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include appropriate interventions/treatments for disorders/diseases/injuries affecting the following systems: respiratory, neurological, abdominal/gastrointestinal, endocrine, genitourinary, musculoskeletal, and immunological as well as toxicology, infectious diseases and

diseases of the eyes, ears, nose and throat. Upon completion, students should be able to recognize, assess and manage the care of frequently encountered medical conditions based upon initial patient assessment.

Prerequisite: Take EMS-122(S23872) EMS-130(S23874);.

EMS 260 - Trauma Emergencies (1.00 3.00 2.00)

This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include an overview of thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma of the head, neck, and face as well as environmental emergencies. Upon completion, students should be able to recognize and manage trauma situations based upon patient assessment and should adhere to standards of care.

Prerequisite: Take EMS-122(S23872) EMS-130(S23874);.

EMS 270 - Life Span Emergencies (3.00 3.00 4.00)

This course covers medical/ethical/legal issues and the spectrum of age-specific emergencies from conception through death required for paramedic certification. Topics include gynecological, obstetrical, neonatal, pediatric, and geriatric emergencies and pharmacological therapeutics. Upon completion, students should be able to recognize and treat age-specific emergencies.

Prerequisite: Take EMS-122(S25185) EMS-130(S25187);.

EMS 280 - EMS Bridging Course (2.00 2.00 3.00)

This course is designed to provide currently credentialed state or national Paramedic students with the most current education trends in Paramedic Practice. Emphasis is placed on transitions in healthcare. Upon completion, students should be able to integrate emerging trends in pre-hospital care.

EMS 285 - EMS Capstone (1.00 3.00 2.00)

This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.

Prerequisite: Take EMS-220(S16342) EMS-250(S11267) EMS-260(S10208);.

ENG-ENGLISH

ENG 002 - Transition English (6.00 3.00)

This course provides an opportunity to customize foundational English content in specific areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in college-level English. Upon completion, students should be able to build a stronger foundation for success in their gateway level English courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

ENG 011 - Writing and Inquiry Support (1.00 2.00 2.00)

This course is designed to support students in the development of skills necessary for success in ENG 111 by complementing, supporting, and reinforcing ENG 111 Student Learning Outcomes. Emphasis is placed on developing a growth mindset, expanding skills for use in active reading and writing processes, recognizing organizational relationships within texts from a variety of genres and formats, and employing appropriate technology when reading and composing texts. Upon completion, students should be able to apply active reading strategies to college-level texts and produce unified, well-developed writing using standard written English.

ENG 101 - Applied Communications I (3.00 3.00)

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace.

ENG 111 - Writing and Inquiry (3.00 3.00)

This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved for transfer under the CAA/ICAA as a general education course in English Composition. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take 1 group; # Take DRE-098(S23643); # Take ENG-002; # Take BSP-4002; Take 1 group; # Take DRE-098(S23643); # Take ENG-002; From rule RMINP2; # Take BSP-4002; From rule BSPMINP2; # Take ENG-011;.

ENG 112 - Writing and Research in the Disciplines (3.00 3.00)

This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize

information from primary and secondary sources using documentation appropriate to various disciplines. This course has been approved for transfer under the CAA/ICAA as a general education course in EnglishComposition.This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take ENG-111(S24022);.

ENG 113 - Literature-Based Research (3.00 3.00)

This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works. This course has been approved for transfer under the CAA/ICAA as a general education course in English Composition.

Prerequisite: Take ENG-111(S13673);.

ENG 114 - Professional Research & Reporting (3.00 3.00)

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research,listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. This course has been approved for transfer under the CAA/ICAA as a general education course inEnglish Composition.

Prerequisite: Take ENG-111(S13673);.

ENG 231 - American Literature I (3.00 3.00)

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts. This course has been approved for transfer under the CAA/ICAA as a general education course inHumanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

Prerequisite: Take ENG-112(S24024) ENG-113 or ENG-114(S13706);.

ENG 232 - American Literature II (3.00 3.00)

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts. This course has been approved for transfer under the CAA/ICAA as a general education course inHumanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

Prerequisite: Take ENG-112(S24024) ENG-113 or ENG-114(S13706);.

ENG 241 - British Literature I (3.00 3.00)

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon

completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

Prerequisite: Take ENG-112(S24024) ENG-113 or ENG-114(S13706); Take ENG-112(S24024);.

ENG 242 - British Literature II (3.00 3.00)

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

Prerequisite: Take ENG-112(S13681) ENG-113 or ENG-114(S13706);.

GEL-GEOLOGY

GEL 111 - Geology (3.00 2.00 4.00)

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

GRO-GERONTOLOGY

GRO 120 - Gerontology (3.00 3.00)

This course covers the psychological, social, and physical aspects of aging. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.

HEA-HEALTH

HEA 110 - Personal Health/Wellness (3.00 3.00)

This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

HIS-HISTORY

HIS 111 - World Civilizations I (3.00 3.00)

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

HIS 112 - World Civilizations II (3.00 3.00)

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

HIS 131 - American History I (3.00 3.00)

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

HIS 132 - American History II (3.00 3.00)

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

HSE-HUMAN SERVICES

HSE 110 - Introduction to Human Services (2.00 2.00 3.00)

This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

HSE 112 - Group Process I (1.00 2.00 2.00)

This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

HSE 123 - Interviewing Techniques (2.00 2.00 3.00)

This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

HSE 125 - Counseling (2.00 2.00 3.00)

This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

HSE 210 - Human Services Issues (2.00 2.00)

This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

HSE 220 - Case Management (2.00 2.00 3.00)

This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion,

students should be able to effectively manage the care of the whole person from initial contact through termination of services.

Prerequisite: Take HSE-110;

HSE 225 - Crisis Intervention (3.00 3.00)

This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

HSE 227 - Children & Adolescents in Crisis (3.00 3.00)

This course covers the crises affecting children and adolescents in contemporary society. Emphasis is placed on abuse and neglect, suicide and murder, dysfunctional family living, poverty, and violence. Upon completion, students should be able to identify and discuss intervention strategies and available services for the major contemporary crises affecting children and adolescents.

HSE 242 - Family Systems (3.00 3.00)

This course introduces the concepts of family structure as a system and includes the impact of contemporary society on the family. Topics include systems theory, family structure, blended families, divorce, adoption, and the elderly. Upon completion, students should be able to demonstrate an understanding of families as a system and the impact of change on family structure.

Prerequisite: Take PSY-150 or SOC-210;

HUM-HUMANITIES

HUM 110 - Technology and Society (3.00 3.00)

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

HUM 115 - Critical Thinking (3.00 3.00)

This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

Prerequisite: Take DRE-098(S23643) ENG-002 BSP-4002 or ENG-111(S24022);.

HUM 120 - Cultural Studies (3.00 3.00)

This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture.

Prerequisite: Take DRE-098(S23587);.

HUM 122 - Southern Culture (3.00 3.00)

This course explores the major qualities that make the South a distinct region. Topics include music, politics, literature, art, religion, race relations, and the role of social class in historical and contemporary contexts. Upon completion, students should be able to identify the characteristics that distinguish Southern culture. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

HUM 123 - Appalachian Culture (3.00 3.00)

This course provides an interdisciplinary study of the unique features of Appalachian culture. Topics include historical, political, sociological, psychological, and artistic features which distinguish this region. Upon completion, students should be able to demonstrate abroad-based awareness and appreciation of Appalachian culture.

Prerequisite: Take RED-090 or DRE-098(S23587);.

HUM 130 - Myth in Human Culture (3.00 3.00)

This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and

legends on modern culture. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

HUM 150 - American Women's Studies (3.00 3.00)

This course provides an inter-disciplinary study of the history, literature, and social roles of American women from Colonial times to the present. Emphasis is placed on women's roles as reflected in American language usage, education, law, the workplace, and mainstream culture. Upon completion, students should be able to identify and analyze the roles of women as reflected in various cultural forms.

Prerequisite: Take RED-090;

HUM 160 - Introduction to Film (2.00 2.00 3.00)

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

HUM 220 - Human Values and Meaning (3.00 3.00)

This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

Prerequisite: Take ENG-111(S13673);.

HUM 230 - Leadership Development (3.00 3.00)

This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

Prerequisite: Take ENG-111(S13673);.

HYD-HYDRAULICS

HYD 110 - Hydraulics/Pneumatics I (2.00 3.00 3.00)

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

ISC-INDUSTRIAL SCIENCE

ISC 112 - Industrial Safety (2.00 2.00)

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance.

ISC 212 - Metrology (1.00 2.00 2.00)

This course covers the principles and techniques of modern practical metrology and inspection methods. Topics include precision, accuracy, standards, and calibration. Upon completion, students should be able to perform various roles within a metrology system.

MAC-MACHINING

MAC 121 - Introduction to CNC (2.00 2.00)

This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

MAC 122 - CNC Turning (1.00 3.00 2.00)

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124 - CNC Milling (1.00 3.00 2.00)

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

MAC 180 - Computer Numerical Control Turn: Program (2.00 6.00 4.00)

This course introduces two-dimensional coordinate planes in a simple program used for the production of a part on a computer numerical controlled (CNC) lathe. Topics include blueprints, basic G and M codes, editor software, linear and circular interpolation, CNC lathes, process plan, Machinery Handbook, programming techniques and tool path. Upon completion, students should be able to demonstrate proper industry techniques for developing a simple program for creating a part on a CNC lathe.

MAC 181 - Computer Numerical Control Mill: Program (2.00 6.00 4.00)

This course introduces the development of a simple program for the production of a part on a computer numerical controlled (CNC) milling machine. Topics include blueprints, basic G and M codes, editor software, linear and circular interpolation, CNC lathes, process plan, Machinery Handbook, programming techniques and tool path. Upon completion, students should be able to demonstrate proper industry techniques for developing a simple program for creating a part on a CNC milling machine.

MAS-MASONRY

MAS 110 - Masonry I (5.00 15.00 10.00)

This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

MAS 110AB - Masonry I (2.50 7.50 5.00)

This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

MAS 110BB - Masonry I (2.50 7.50 5.00)

This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

Prerequisite: Take MAS-110AB(L22310);.

MAS 120 - Masonry II (5.00 15.00 10.00)

This course provides practical experience in cost estimating, foundations, bonding variations, expansion joints, wall ties, building codes, and other related topics. Emphasis is placed on material estimation, layout of footing, construction of walls, reinforcements, scaffolding, insulating, and building codes. Upon completion, students should be able to determine cost, plan sound building procedures, construct masonry projects, and apply building codes.

MAS 130 - Masonry III (6.00 6.00 8.00)

This course provides fundamentals and skills used in masonry construction. Emphasis is placed on building chimneys, fireplaces, columns, concrete masonry, and arches; using materials economically; satisfying needs and expectations; and proper work ethics. Upon completion, students should be able to build structures covered in the course, demonstrate increased speed and accuracy, and make smooth transitions between construction stages.

MAS 140 - Introduction to Masonry (1.00 2.00 2.00)

This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

MAS 170 - Masonry Technology Management (1.00 2.00 2.00)

This course extends the concepts covered in the masonry curriculum. Topics include ornamental material applications, job site safety, site management: including environmental impact, employee supervision, and job cost management. Upon completion, students should be able to demonstrate advanced installation skills, as well as analyze and implement various management requirements.

Prerequisite: Take MAS-130;.

MAT-MATHEMATICS

MAT 003 - Transition Math (6.00 3.00)

This course provides an opportunity to customize foundational math content in specific math areas and will include developing a growth mindset. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in their gateway level math courses by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

MAT 010 - Math Measurement & Literacy Su (2.00 1.00)

This course provides an opportunity to customize foundational math content specific to Math Measurement Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Math Measurement Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

MAT 021 - Algebra/Trigonometry I Support (1.00 2.00 2.00)

This course provides an opportunity to customize foundational math content specific to Algebra and Trigonometry I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Algebra/Trigonometry I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

MAT 043 - Quantitative Literacy Support Class (1.00 2.00 2.00)

This course provides an opportunity to customize foundational math content specific to Quantitative Literacy. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Quantitative Literacy by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

MAT 052 - Statistical Methods I Support (1.00 2.00 2.00)

This course provides an opportunity to customize foundational math content specific to Statistical Methods I. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Statistical Methods I by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

MAT 071 - 071 Precalculus Algebra Support (4.00 2.00)

This course provides an opportunity to customize foundational math content specific to Precalculus Algebra. Topics include developing the academic habits, learning strategies, social skills, and growth mindset necessary to be successful in mathematics. Upon completion, students should be able to build a stronger foundation for success in Precalculus Algebra by obtaining skills through a variety of instructional strategies with emphasis placed on the most essential prerequisite knowledge.

MAT 110 - Mathematical Measurement and Literacy (2.00 2.00 3.00)

This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030; # Take DMA-025; # Take MAT-003; # Take BSP-4003; Take 1 group; # Take DMA-010 DMA-020 DMA-030; # Take DMA-025; # Take MAT-003; From rule RMINP1; # Take BSP-4003; From rule BSPMINP1; # Take MAT-010;.

MAT 121 - Algebra/Trigonometry I (2.00 2.00 3.00)

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include the properties of plane and solid geometry, area and volume, and basic proportion applications; simplification, evaluation, and solving of algebraic equations and inequalities and radical functions; complex numbers; right triangle trigonometry; and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985); # Take DMA-025 DMA-045 DMA-060(S24985); # Take DMA-010 DMA-020 DMA-030 DMA-045 DMA-060(S24985); # Take MAT-003; From rule RMINP2M; # Take BSP-4003; From rule BSPMINP2; Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985); # Take DMA-010 DMA-020 DMA-030 DMA-045 DMA-060(S24985); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985); # Take DMA-025 DMA-045 DMA-060(S24985); # Take MAT-003; From rule RMINP3; # Take BSP-4003; From rule BSPMINP3; # Take MAT-071(S25141); # Take MAT-021;.

MAT 143 - Quantitative Literacy (2.00 2.00 3.00)

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as

consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative). This is a Universal General Education Transfer (UGETC) course.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DRE-098(S23643); # Take DMA-010 DMA-020 DMA-030 DMA-045 DRE-098(S23643); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DRE-098(S23643); # Take DMA-025 DMA-045 DRE-098(S23643); # Take MAT-003 ENG-002; # Take MAT-003 ENG-111(S24022); # Take MAT-003 DRE-098(S23643); # Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S24984) ENG-002; # Take DMA-010 DMA-020 DMA-030 DMA-045 ENG-002; # Take DMA-025 DMA-040(S24983) DMA-050(S24984) ENG-002; # Take DMA-025 DMA-045 ENG-002; # Take BSP-4003 BSP-4002; # Take BSP-4003 ENG-111(S24022); Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DRE-098(S23643); # Take DMA-010 DMA-020 DMA-030 DMA-045 DRE-098(S23643); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DRE-098(S23643); # Take DMA-025 DMA-045 DRE-098(S23643); # Take MAT-003; From rule RMINP2; # Take BSP-4003; From rule BSPMINP2; # Take MAT-052; # Take MAT-043;.

MAT 152 - Statistical Methods I (3.00 2.00 4.00)

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative). This is a Universal General Education Transfer (UGETC) course.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DRE-098(S23643); # Take DMA-010 DMA-020 DMA-030 DMA-045 DRE-098(S23643); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DRE-098(S23643); # Take DMA-025 DMA-045 DRE-098(S23643); # Take MAT-003 ENG-002; # Take MAT-003 ENG-111(S24022); # Take MAT-003 DRE-098(S23643); # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) ENG-002; # Take DMA-010 DMA-020 DMA-030 DMA-045 ENG-002; # Take DMA-025 DMA-040(S24983) DMA-050(S24984) ENG-002; # Take DMA-025 DMA-045 ENG-002; # Take BSP-4003 BSP-4002; # Take BSP-4003 ENG-111(S24022);.

MAT 171 - Precalculus Algebra (3.00 2.00 4.00)

This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative). This is a Universal General Education Transfer (UGETC) course.

Prerequisite: Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); # Take MAT-121(S24993); # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-065(S24986); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); # Take DMA-025 DMA-045

DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); # Take DMA-010 DMA-020 DMA-030 DMA-045 DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-065(S24986); # Take DMA-010 DMA-020 DMA-030 DMA-045 DMA-065(S24986); # Take DMA-025 DMA-045 DMA-065(S24986); # Take MAT-003; From rule RMINP2M; # Take BSP-4003; From rule BSPMINP2; Take 1 group; # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); # Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-065(S25064); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); # Take DMA-025 DMA-040(S24983) DMA-050(S24984) DMA-065(S25064); # Take DMA-025 DMA-045 DMA-065(S25064); # Take MAT-121(S24993); # Take MAT-003; From rule RMINP3; # Take BSP-4003; From rule BSPMINP3; # Take MAT-021; # Take MAT-071(S25141);.

MAT 172 - Precalculus Trigonometry (3.00 2.00 4.00)

This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinates, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative). This is a Universal General Education Transfer (UGETC) course.

Prerequisite: Take MAT-171(S23934);.

MAT 271 - Calculus I (3.00 2.00 4.00)

This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative). This is a Universal General Education Transfer (UGETC) course.

Prerequisite: Take MAT-172(S23935);.

MAT 272 - Calculus II (3.00 2.00 4.00)

This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative). This is a Universal General Education Transfer (UGETC) course.

Prerequisite: Take MAT-271(S23939);.

MAT 273 - Calculus III (3.00 2.00 4.00)

This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology. This course has been approved for transfer under the CAA/ICAA as a general education course in Mathematics (Quantitative).

Prerequisite: Take MAT-272(S23940);.

MEC-MECHANICAL

MEC 110 - Introduction to CAD/CAM (1.00 2.00 2.00)

This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.

MEC 111 - Machine Processes I (1.00 4.00 3.00)

This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to manufacture simple parts to specified tolerance.

MEC 112 - Machine Processes II (2.00 3.00 3.00)

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

Prerequisite: Take MEC-111(S14064);

MED-MEDICAL ASSISTING

MED 110 - Orientation to Medical Assisting (1.00 1.00)

This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

MED 118 - Medical Law and Ethics (2.00 2.00)

This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

MED 121 - Medical Terminology I (3.00 3.00)

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 122 - Medical Terminology II (3.00 3.00)

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

Prerequisite: Take MED-121;.

MED 130 - Administrative Office Procedures I (1.00 2.00 2.00)

This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

MED 131 - Administrative Office Procedures II (1.00 2.00 2.00)

This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance

procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

MED 140 - Examining Room Procedures I (3.00 4.00 5.00)

This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

MED 150 - Laboratory Procedures I (3.00 4.00 5.00)

This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

MED 240 - Examining Room Procedures II (3.00 4.00 5.00)

This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures.

Prerequisite: Take MED-140;.

MED 260 - MED Clinical Practicum (15.00 5.00)

This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

MED 262 - Clinical Perspectives (1.00 1.00)

This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility.

MED 270 - Symptomatology (2.00 2.00 3.00)

This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

MED 272 - Drug Therapy (3.00 3.00)

This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

MKT-MARKETING AND RETAILING

MKT 120 - Principles of Marketing (3.00 3.00)

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

MUS-MUSIC

MUS 110 - Music Appreciation (3.00 3.00)

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts. This is a Universal General Education Transfer Component (UGTEC) course.

NAS-NURSING ASSISTANT

NAS 101 - Nurse Aide I (3.00 4.00 3.00 6.00)

This course includes basic nursing skills required to provide safe, competent personal care for individuals. Emphasis is placed on person-centered care, the aging process, communication, safety/emergencies, infection prevention, legal and ethical issues, vital signs, height and weight measurements, elimination, nutrition, basic restorative care/rehabilitation, dementia, mental health and end-of-life care. Upon completion, students should be able to demonstrate knowledge and skills and be eligible to test for listing on the North Carolina Nurse Aide I Registry.

NAS 106 - Geriatric Aide (5.00 3.00 6.00)

This course is designed to enhance the knowledge of the Nurse Aide I providing care to the aging population. Emphasis is placed on the person-centered care, stress management, health promotion, dementia/challenging behaviors, mental health issues, and end-of-life/palliative care. Upon completion, students should be able to demonstrate knowledge and provide safe care for the aging population and are eligible to be listed on the North Carolina Geriatric Nurse Aide registry.

Prerequisite: Take NAS-101(S24247);.

NAS 107 - Medication Aide (2.00 1.00)

This course will cover the six rights of medication administration for non-licensed personnel. Topics will include medication administration via the oral, topical and installation routes, medical asepsis, hand hygiene, terminology, and legal implications. Upon completion, students should be able to demonstrate skills necessary to qualify as a Medication Aide with the North Carolina Medication Aide Registry.

NET-NETWORKING TECHNOLOGY

NET 125 - Introduction to Networks (1.00 4.00 3.00)

This course introduces the architecture, structure, functions, components, and models of the Internet and computer networks. Topics include introduction to the principles of IP addressing and fundamentals of Ethernet concepts, media, and operations. Upon completion, students should be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

Prerequisite: Take CTI-120(S22511);.

NOS-NETWORK OPERATING SYSTEMS

NOS 120 - Linux/UNIX Single User (2.00 2.00 3.00)

This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

NOS 130 - Windows Single User (2.00 2.00 3.00)

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

NOS 230 - Windows Administration I (2.00 2.00 3.00)

This course covers the installation and configuration of a Windows Server operating system. Emphasis is placed on the basic configuration of core network services, Active Directory and group policies. Upon completion, students should be able to install and configure a Windows Server operating system.

NUR-NURSING

NUR 101 - Practical Nursing I (7.00 6.00 6.00 11.00)

This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including assessment, clinical decision making, professional behaviors, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching/learning, safety, ethical principles, legal issues, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course.

NUR 102 - Practical Nursing II (7.00 9.00 10.00)

This course is designed to further develop the concepts within the three domains of the individual, nursing, and healthcare. Emphasis is placed on the concepts within each domain including clinical decision making, caring interventions, biophysical and psychosocial concepts, communication, collaboration, teaching and learning, accountability, safety, informatics, and evidence-based practice. Upon completion, students should be able to provide safe nursing care across the lifespan incorporating the concepts identified in this course.

Prerequisite: Take NUR-101(S24252);.

NUR 103 - Practical Nursing III (6.00 9.00 9.00)

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on biophysical and psychosocial concepts, professional behaviors, healthcare systems, health policy, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide safe, quality, and individualized entry level nursing care.

Prerequisite: Take NUR-101(S24252);.

NUR 111 - Introduction to Health Concepts (4.00 6.00 6.00 8.00)

This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

NUR 112 - Health-Illness Concepts (3.00 6.00 5.00)

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managingcare, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

Prerequisite: Take NUR-111;

NUR 113 - Family Health Concepts (3.00 6.00 5.00)

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

Prerequisite: Take NUR-111;

NUR 114 - Holistic Health Concepts (3.00 6.00 5.00)

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, professional behaviors, caring interventions, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

Prerequisite: Take NUR-111;

NUR 117 - Pharmacology (1.00 3.00 2.00)

This course introduces information concerning sources, effects, legalities, and the safe use of medications as therapeutic agents. Emphasis is placed on nursing responsibility, accountability, pharmacokinetics, routes of medication administration, contraindications and side effects. Upon completion, students should be able to compute dosages and administer medication safely.

NUR 211 - Health Care Concepts (3.00 6.00 5.00)

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

Prerequisite: Take NUR-111;

NUR 212 - Health System Concepts (3.00 6.00 5.00)

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

Prerequisite: Take NUR-111;

NUR 213 - Complex Health Concepts (4.00 3.00 15.00 10.00)

This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.

Prerequisite: Take NUR-111; Take NUR-112 NUR-113 NUR-114 NUR-211 NUR-212;.

OST-OFFICE SYSTEMS TECHNOLOGY

OST 080 - Keyboarding Literacy (1.00 2.00 2.00)

This course is designed to develop elementary keyboarding skills. Emphasis is placed on mastery of the keyboard. Upon completion, students should be able to demonstrate basic proficiency in keyboarding.

OST 137 - Office Applications I (2.00 2.00 3.00)

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands-on approach. Upon completion, students should be able to use software in a business environment.

Prerequisite: Take OST-080(S12295) CIS-110(S21058);.

OST 142 - Med Terms II-Med Office (3.00 3.00)

This course is a continuation of OST 141 and continues the study, using a language-structure approach, of medical office terminology and vocabulary. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in the remaining systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

Prerequisite: Take OST-141(S11561);.

OST 148 - Medical Insurance and Billing (3.00 3.00)

This course introduces fundamentals of medical insurance and billing. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.

OST 236 - Advanced Word or Information Processing (2.00 2.00 3.00)

This course develops proficiency in the utilization of advanced word/information processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.

Prerequisite: Take OST-136(S22144);.

OST 243 - Med Office Simulation (2.00 2.00 3.00)

This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

Prerequisite: Take OST-148(S11620);.

OST 289 - Administrative Office Management (2.00 2.00 3.00)

This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

Prerequisite: Take 1 group; # Take OST-134(S22142) OST-164(S12524); # Take OST-136(S22144) OST-164(S12524);.

PED-PHYSICAL EDUCATION

PED 110 - Fit and Well for Life (1.00 2.00 2.00)

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 113 - Aerobics I (3.00 1.00)

This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.

PED 114 - Aerobics II (3.00 1.00)

This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Prerequisite: Take PED-113;

PED 121 - Walk, Jog, Run (3.00 1.00)

This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 122 - Yoga I (2.00 1.00)

This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 123 - Yoga II (2.00 1.00)

This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate

advanced procedures of yoga. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

Prerequisite: Take PED-122;

PED 125 - Self-Defense: Beginning (2.00 1.00)

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 128 - Golf-Beginning (2.00 1.00)

This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 138 - Archery (2.00 1.00)

This course introduces basic archery safety and skills. Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 152 - Swimming-Beginning (2.00 1.00)

This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 170 - Backpacking (2.00 1.00)

This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 171 - Nature Hiking (2.00 1.00)

This course provides instruction on how to equip and care for oneself on the trail. Topics include clothing, hygiene, trail ethics, and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes.

PED 173 - Rock Climbing (2.00 1.00)

This course teaches the fundamental skills and safety of rock climbing. Topics include rock climbing, bouldering, rappelling, the correct method of belaying for climbing and rappelling, and knowledge of equipment. Upon completion, students should be able to demonstrate strong and skillful techniques in climbing and rappelling. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 181 - Snow Skiing-Beginning (2.00 1.00)

This course introduces the fundamentals of snow skiing. Topics include basic techniques, safety, and equipment involved in snow skiing. Upon completion, students should be able to ski a down slope, enter and exit a ski lift, and perform basic maneuvers on skis. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PED 212 - Snowboarding-Beginning (2.00 1.00)

This course is designed to develop the basic knowledge and skills of snowboarding. Topics include equipment, conditioning exercises, terminology, safety, rules, fundamental skills, and the use of lifts. Upon completion, students should be able to snowboard downhill, enter and exit a ski lift, and perform basic maneuvers on a snowboard. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PHI-PHILOSOPHY

PHI 215 - Philosophical Issues (3.00 3.00)

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue.

Prerequisite: Take ENG-111(S24022);.

PHI 240 - Introduction to Ethics (3.00 3.00)

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on moral theories such as consequentialism, deontology, and virtue ethics. Upon completion, students should be able to apply various ethical theories to moral issues such as abortion, capital punishment, poverty, war, terrorism, the treatment of animals, and issues arising from new technologies. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/FineArts. This is a Universal General Education Transfer Component (UGTEC) course.

Prerequisite: Take ENG-111(S24022);.

PHY-PHYSICS

PHY 110 - Conceptual Physics (3.00 3.00)

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take PHY-110A;. Corequisite: Take PHY-110A.

PHY 110A - Conceptual Physics Lab (2.00 1.00)

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take PHY-110;.

PHY 151 - College Physics I (3.00 2.00 4.00)

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take MAT-171(S23934) or MAT-271(S23939);.

PHY 152 - College Physics II (3.00 2.00 4.00)

This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take PHY-151(S16517);.

PHY 251 - General Physics I (3.00 3.00 4.00)

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving

ability for the topics covered. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take MAT-271(S13631); Take MAT-272(S13612);. Corequisite: Take MAT-272.

PHY 252 - General Physics II (3.00 3.00 4.00)

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved for transfer under the CAA/ICAA as a general education course in Natural Science. This is a Universal General Education Transfer Component (UGETC) course.

Prerequisite: Take MAT-272(S13612) PHY-251;.

POL-POLITICAL SCIENCE

POL 120 - American Government (3.00 3.00)

This course is a study of the origins, development, structure, and functions of American government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy process. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

POL 130 - State & Local Government (3.00 3.00)

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual. This course has been approved for transfer under the CAA/ICAA as a premajor and/or elective course requirement.

PSY-PSYCHOLOGY

PSY 150 - General Psychology (3.00 3.00)

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

PSY 241 - Developmental Psychology (3.00 3.00)

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the lifespan. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences.

Prerequisite: Take PSY-150;.

PSY 281 - Abnormal Psychology (3.00 3.00)

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences.

Prerequisite: Take PSY-150;.

RED-READING

RED 111 - Critical Reading for College (3.00 3.00)

This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon Completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines.

REL-RELIGION

REL 110 - World Religions (3.00 3.00)

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

Prerequisite: Take RED-090 or DRE-098(S23587);.

REL 111 - Eastern Religions (3.00 3.00)

This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

Prerequisite: Take RED-090 or DRE-098(S23587);.

REL 112 - Western Religions (3.00 3.00)

This course introduces the major western religious traditions. Topics include Zoroastrianism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

REL 211 - Introduction to Old Testament (3.00 3.00)

This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature.

Prerequisite: Take RED-090 or DRE-098(S23587);.

REL 212 - Introduction to New Testament (3.00 3.00)

This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature.

Prerequisite: Take RED-090 or DRE-098(S23587);.

REL 221 - Religion in America (3.00 3.00)

This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America.

Prerequisite: Take RED-090 or DRE-098(S23587);.

SAB-SUBSTANCE ABUSE

SAB 110 - Substance Abuse Overview (3.00 3.00)

This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.

SEC-SECURITY

SEC 110 - Security Concepts (2.00 2.00 3.00)

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

Prerequisite: Take NET-125(S24501);.

SOC-SOCIOLOGY

SOC 210 - Introduction to Sociology (3.00 3.00)

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences. This is a Universal General Education Transfer Component (UGETC) course.

SOC 213 - Sociology of the Family (3.00 3.00)

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. This course has been approved for transfer under the CAA/ICAA as a general education course in Social/Behavioral Sciences.

SOC 220 - Social Problems (3.00 3.00)

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.

SOC 225 - Social Diversity (3.00 3.00)

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance.

SPA-SPANISH

SPA 111 - Elementary Spanish I (3.00 3.00)

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

SPA 112 - Elementary Spanish II (3.00 3.00)

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. This course has been approved for transfer under the CAA/ICAA as a general education course in Humanities/Fine Arts.

Prerequisite: Take SPA-111;.

SPA 211 - Intermediate Spanish I (3.00 3.00)

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

Prerequisite: Take SPA-112;.

SPA 212 - Intermediate Spanish II (3.00 3.00)

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

Prerequisite: Take SPA-211;.

SST-SUSTAINABILITY TECHNOLOGIES

SST 140 - Green Building and Design Concepts (3.00 3.00)

This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.

SWK-SOCIAL WORK

SWK 110 - Intro to Social Work (3.00 3.00)

This course examines the historical development, values, orientation, and professional standards of social work and focuses on the terminology and broader systems of social welfare. Emphasis is placed on the various fields of practice including those agencies whose primary function is financial assistance, corrections, mental health, and protective services. Upon completion, students should be able to demonstrate an understanding of the knowledge, values, and skills of the social work professional.

TDP-THREE DIMENSIONAL PRINTING

TDP 110 - Introduction to Three Dimensional (2.00 3.00 3.00)

This course covers the historical, social and ethical issues, as well as the basic techniques surrounding 3D Printing. Topics include current and historical events, social impact of the technology and basic model creation and manipulation techniques. Upon completion, students should be able to demonstrate an understanding of the major advantages and disadvantages of 3D Printing technology as well as demonstrate an ability to create and print a simple project.

TDP 140 - Precision Three Dimensional Printing (2.00 3.00 3.00)

This course provides an introduction to precision printing using the basic techniques surrounding 3D Printing. Emphasis is placed on cost-effective production methods and dimensional quality control. Upon completion, students should be able to demonstrate an understanding of three-dimensional precision printing as well as demonstrate an ability to create and print an advanced project.

Prerequisite: Take TDP-110;

TRF-TURFGRASS MANAGEMENT

TRF 110 - Introduction Turfgrass Cultivation & Id (3.00 2.00 4.00)

This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices.

WBL-WORK-BASED LEARNING

WBL 111 - Work-Based Learning I (1.00)

This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL 115 - Work-Based Learning Seminar I (1.00 1.00)

This course description may be written by the individual colleges.

Prerequisite: Take WBL-111 WBL-112 WBL-113 or WBL-114; Take WBL-111;

WEB-WEB TECHNOLOGIES

WEB 115 - Web Markup and Scripting (2.00 2.00 3.00)

This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards.

WEB 120 - Introduction to Internet Multimedia (2.00 2.00 3.00)

This course introduces the creation of rich media for the Internet. Topics include the design, production and delivery of interactive content, rich media, digital video, and digital audio. Upon completion, students should be able to create multimedia projects incorporating graphics, text, video, and audio using industry standard authoring software or web standards.

WEB 151 - Mobile Application Development I (2.00 2.00 3.00)

This course introduces students to programming technologies, design and development related to mobile applications. Topics include accessing device capabilities, industry standards, operating systems, and programming for mobile applications using an OS Software Development Kit (SDK). Upon completion, students should be able to create basic applications for mobile devices.

WEB 210 - Web Design (2.00 2.00 3.00)

This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites.

WLD-WELDING

WLD 110 - Cutting Processes (1.00 3.00 2.00)

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon Completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

WLD 112 - Basic Welding Processes (1.00 3.00 2.00)

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115 - SMAW (Stick) Plate (2.00 9.00 5.00)

This course introduces the shielded metal arc(stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD 116 - SMAW (stick) Plate/Pipe (1.00 9.00 4.00)

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

Prerequisite: Take WLD-115(S10891);

WLD 121 - GMAW (MIG) FCAW/Plate (2.00 6.00 4.00)

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD 122 - GMAW (MIG) Plate/Pipe (1.00 6.00 3.00)

This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.

Prerequisite: Take WLD-121(S13138);.

WLD 131 - GTAW (TIG) Plate (2.00 6.00 4.00)

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

WLD 132 - GTAW (TIG) Plate/Pipe (1.00 6.00 3.00)

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

Prerequisite: Take WLD-131(S10437);.

WLD 141 - Symbols and Specifications (2.00 2.00 3.00)

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 143 - Welding Metallurgy (1.00 2.00 2.00)

This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon Completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

WLD 151 - Fabrication I (2.00 6.00 4.00)

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

Prerequisite: Take WLD-110(S23303) WLD-121(S23305);.

WLD 261 - Certification Practices (1.00 3.00 2.00)

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.

Prerequisite: Take WLD-115(S10891) WLD-121(S13138) WLD-131(S10437);.

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