

WCC Program Learning Outcomes

Allied Health, Human & Public Services Programs

Associate Degree Nursing (A45120)

I. Description/Purpose

The Associate Degree Nursing (non-integrated) curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings. Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN), which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long-term care facilities, clinics, physician's offices, industry, and community agencies.

II. Program Learning Outcomes:

- Apply the nursing process to provide individualized, safe and effective nursing care in structured and non-structured settings.
- Utilize resources and technologies in the delivery of nursing care.
- Use a variety of communication skills to establish and maintain a therapeutic and/or effective relationship with patients/clients, families, and health care providers.
- Identify learning needs and implement teaching based on developmental, educational, psychosocial, and cultural differences.
- Utilize beginning management and leadership skills to organize, prioritize and implement care for diverse groups of patients/clients.
- Demonstrate accountability for personal nursing practice and professional growth.

Basic Law Enforcement Training (C55120)

I. Description/Purpose

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State-commission-mandated topics and methods of instruction. General subjects include, but are not limited to criminal, juvenile, civil, traffic, and alcoholic beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations.

Students must successfully complete and pass all units of study which include the certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs' Education and Training Standards Commission to receive a certificate.

II. Program Learning Outcomes:

- Identify and complete basic patrol operations; demonstrate an appropriate knowledge of the North Carolina Criminal Code and determine the basis for probable cause in order to complete an arrest of a suspect and complete legal details regarding the constitutional rights of an accused.
- Assess and prioritize methods of measuring police productivity; determine and assess situations requiring the use of physical force and methods necessary to complete peace keeping functions.
- Develop familiarity with computers and communications equipment, to collect, process and analyze basic crime data; identify evidentiary items at a crime scene and demonstrate proper techniques for the processing and preserving of evidence.
- Demonstrate survival skills through effective communication and interpersonal skills and apply knowledge of individual and group behavior, current social issues, and crime and deviance.

- Apply contemporary community problem-solving techniques by demonstrating knowledge in reference to diverse cultures.

Cosmetology (D55140 & C55140)

I. Description/Purpose

A Certificate in Cosmetology is awarded by the College upon completion of this Program. Graduates are eligible to take the examination to become a licensed Cosmetologist that is given by the State Board of Cosmetic Arts.

II. Program Learning Outcomes:

- Demonstrate a fundamental understanding of the scientific/artistic principles of Cosmetology from a historical perspective.
- Demonstrate competency-based knowledge of hands-on fundamentals associated with the Cosmetology industry.
- Apply practical principles related to the respective professions in cosmetology.
- Perform all phases of professional imaging (hair design, chemical processes, skin care, nail care, Product knowledge) to successfully pass the State Board of Cosmetic Arts examination.

Criminal Justice Technology (A55180)

I. Description/Purpose

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

II. Program Learning Outcomes:

- Demonstrate a fundamental understanding of human behavior from a historical, criminological, and sociological perspective.
- Apply principles related to the diversity of people and cultures to laws and society.
- Demonstrate critical reasoning, problem solving abilities, communications skills, and ethical concerns in criminal justice.
- Apply practical principles related to the respective professions in criminal justice.
- Perform detection, investigation, and enforcement procedures with a working knowledge of the laws.

Dental Hygiene (A45260)

I. Description/Purpose

The Dental Hygiene curriculum prepares graduates to take patient histories, teach oral hygiene, clean teeth, take X-rays and apply preventive agents under the supervision of a dentist. Dental hygienists may be employed in dentists' offices, clinics, schools, public health agencies, industry and educational institutions.

II. Program Learning Outcomes:

- Perform medical and clinical patient assessments.

- Perform dental prophylaxis on patients with different levels of difficulty at increasingly higher levels of competency.
- Perform prevention services with a variety of patients with diverse needs.
- Perform dental radiographic procedures that include bitewing, full-mouth series and panoramic views on dexter and patients.
- Maintain medical/legal documentation in accordance with the NC Dental Practice Act..
- Provide dental health related education with appropriate patient assessment.
- Perform dental clinic/office support.
- Manage medical emergency situations in the dental setting.
- Practice infection control protocol throughout the program.
- Demonstrate professionalism with patients, faculty, peers, community organizations and dental associations.
- Plan, implement, and provide dental health education to diverse community groups.
- Discuss and experience in person different types of dental practice settings and professional roles.

Dental Assisting (D45240)

I. Description/Purpose

The Dental Assisting curriculum prepares graduates to assist the dentist in providing treatment services. Functions performed by the dental assistant include dental health education, preparing dental materials, preparing the patient for treatment, taking dental X-rays, maintaining dental supplies and equipment, assisting the dentist, providing selected services for the patient, making appointments, maintaining patient records and other office management procedures. Graduates may be employed by dental offices, dental clinics, public health clinics, federal service clinics, dental schools, state health departments, dental manufacturers and insurance companies.

Graduates are eligible to take the examination given by the Dental Assisting National Board, Incorporated, to become a Certified Dental Assistant.

II. Program Learning Outcomes:

- Display professionalism in the dental setting
- Assist in and perform chairside procedures in the dental office
- Communicate effectively with dental patients
- Perform clinical dental examinations
- Perform dental administrative management procedures
- Perform dental radiographic procedures
- Provide patient dental health education
- Establish and maintain dental office safety practices
- Perform dental equipment maintenance procedures
- Perform dental laboratory procedures
- Identify methods for managing emergency situations in the dental setting
- Practice infection control protocol throughout the dental assisting program

Early Childhood Associate – Teacher Associate (A5522B)

I. Description/Purpose

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes childhood growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child-care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

II. Program Learning Outcomes:

- Apply selected theories and concepts of child development to the education of young children;
- Plan and implement developmentally appropriate experiences that stimulate young children's development and learning.
- Provide an optimal learning environment for young children.
- Establish and maintain a safe and healthy environment for young children.
- Provide positive guidance for young children; and
- Communicate effectively with children, co-workers, and parents.

Early Childhood Associate (A55220)

I. Description/Purpose

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes childhood growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child-care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

II. Program Learning Outcomes:

- Apply selected theories and concepts of child development to the education of young children;
- Plan and implement developmentally appropriate experiences that stimulate young children's development and learning.
- Provide an optimal learning environment for young children.
- Establish and maintain a safe and healthy environment for young children.
- Provide positive guidance for young children; and
- Communicate effectively with children, co-workers, and parents.

Human Services Technology (A45380)

I. Description/Purpose

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies, which provide social, community, and educational services. Along with core courses, students take courses to prepare them for specialization in specific human service area. Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, childcare, family services, social services, rehabilitation, correction, and educational agencies.

II. Program Learning Outcomes:

- Demonstrate fundamental understanding of human behavior and development from a historical, biological, psychological and sociological perspective;
- Apply principles related to the diversity of people and cultures to the therapeutic relationship;

- Apply practical principles related to the respective concentration in the Human Services profession;
- Demonstrate critical reasoning and problem solving abilities, communication skills and ethical concerns as applied to clinical practice.

Medical Assisting (A45400)

I. Description/Purpose

The Medical Assisting Curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and hospitals.

The Medical Assisting department is committed to promoting excellence within the profession by educating students at the associate degree level of competently perform as a multi-skilled medical assistant who may acquire certification and become a member of the AAMA/AMTM and commit to continuing education opportunities.

II. Program Learning Outcomes:

- Demonstrate professional behavior that reflects an understanding of ethical, legal, and self-management concepts.
- Communicate effectively with patients and their families and other health care team members.
- Practice at a beginning level administrative, clinical, and laboratory functions as they relate to the examination and treatment of patients in medical facilities.
- Implement teaching plan based on individual needs as well as community needs.

Phlebotomy (C45600)

I. Description/Purpose

The Phlebotomy curriculum prepares individuals to obtain blood and other specimens for the purpose of laboratory analysis.

Course work includes proper specimen collection and handling, communication skills, and maintaining patient data.

Graduates may qualify for employment in hospitals, clinics, physician's offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

II. Program Learning Outcomes:

- Prepare and maintain equipment used in obtaining blood and other specimens for the purpose of laboratory analysis.
- Use appropriate communication skills when working with patients, families and health care providers.
- Perform phlebotomy procedures while adhering to safety guidelines.
- Transport and handle specimens properly.
- Demonstrate appropriate documentation of phlebotomy procedures performed using computerized and manual methods.
- Demonstrate professional behavior during the practice of phlebotomy

Practical Nursing (D45660)

I. Description/Purpose

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN), which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long-term care/home health facilities, clinics, and physicians' offices.

II. Program Learning Outcomes:

- Participate in applying the nursing process to provide individualized, safe, and effective care in a structured setting under supervision.
- Utilize resources and technologies in the delivery of nursing care
- Use a variety of communication techniques to establish and maintain effective relationships with patient/client, colleagues, and others.
- Participate in patient teaching/counseling as assigned by the registered nurse.
- Organize care for groups of patients.
- Demonstrate accountability for own nursing practice and personal development.

Applied Technologies

Agribusiness Technology (A15100, D15100, C15100)

I. Description/Purpose

The Agribusiness Technology curriculum is designed to prepare individuals for careers in the agribusiness segment of the agricultural industry. It provides an understanding of basic business concepts and principles as they relate to the agricultural industry.

Students will learn the principles of organization and management in agricultural businesses and the application of these principles in agricultural production. Students will also learn the basic principles of our economic system and government policies and programs relating to agriculture.

Graduates should qualify for a variety of jobs in agricultural businesses such as equipment, feed, and agricultural supply sales, store managers, farm operations, and office managers of agricultural products marketing firms.

A degree, diploma, and certificate in Agribusiness offered and is awarded by the College upon completion of the respective program.

II. Program Learning Outcomes:

- Demonstrate a fundamental understanding of practical principles of organization, management, economics, accounting, marketing and laws as they pertain to agricultural business and apply these principles in agricultural production
- Apply fundamental principles of livestock production practices, proper pesticide use and handling, basic life science concepts, and water quality as they relate to the agricultural industry
- Identify various soil types as well as weeds and apply principles of such to make recommendations regarding nutrient management of soil and methods of weed control

- Demonstrate the ability to perform calculations, use communication skills, and apply personal computer skills to the agricultural industry
- Demonstrate a fundamental understanding of the humanities and social sciences as they relate locally, regionally, and globally,

Air Conditioning, Heating, & Refrigeration Technology (D35100)

I. Description/Purpose

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments.

Graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

II. Program Learning Outcomes:

- Apply the fundamental and advanced principles of air conditioning, heating, and refrigeration technology in troubleshooting, replacing, servicing, installing, and repairing equipment and systems
- Recognize and utilize the appropriate tools, test instruments, and equipment to troubleshoot and affect desired results
- Determine optimal approaches to ascertain most desired means, methods, and end results in interfacing and interacting with HVACR industry customers
- Demonstrate logical reasoning and enhanced problem solving abilities by troubleshooting and diagnosing faults in HVACR equipment and systems
- Construct and operate basic and advanced HVACR refrigerant electrical and air flow circuits and systems

Autobody Repair (D60100, C60100A, C60100B, & C60100C)

I. Description/Purpose

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on-repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

Certificates are offered in Autobody Non-Structural Repair, Refinishing, and Structural Repair.

Automotive Systems Technology, ATEP/ASEP (A60160 & A60160A)

I. Description/Purpose

The Automotive Systems Technology, curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair centers in the automotive service industry.

The Multiple Manufacturing Technician Educational Program (MM-AATEP) is a partnership involving educational institutions, national and local businesses, students, and American and foreign automotive dealers and repair centers in the College's service area.

Aviation Systems Technology (A60200)

I. Description/Purpose

The Official Program Description registered with the N. C. Community College System. This curriculum is designed to provide individuals with the basic aircraft knowledge who intend to seek a career in Aviation Systems Technology. It prepares individuals with the necessary skills for the Federal Aviation Administration written, oral, and practical powerplant and airframe examinations. Course work includes all the systems and subsystems related to the powerplant and airframe as required by the Federal Aviation Administration Regulations Part 147. Graduates of the curriculum should qualify for a powerplant and an airframe license. Employment opportunities exist with fixed base operators and manufacturers.

II. Program Learning Outcomes:

- Be prepared for taking the Federal Aviation Administration general, airframe, powerplant written examinations.
- Upon attaining a satisfactory grade (70%), the student will be eligible to take the Federal Aviation Administration general airframe, and powerplant oral and practical examinations.
- Upon satisfactory completion of these examinations the student will be issued a Federal Aviation Administration Mechanic's Certificate with airframe and powerplant ratings

Electronics Engineering (A40200)

I. Description/Purpose

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify-developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

II. Program Learning Outcomes:

- Construct and analyze basic and advanced electronic devices and circuits that pertain to the principles of Electronics Engineering.
- Apply the fundamental and advanced principles of electronic devices and circuits in their ability to design, test, and troubleshoot on the sub-system and system level.
- Anticipate and utilize the appropriate laboratory testing equipment such as the power supply, oscilloscope, function generator, curve tracer, and digital multimeter to measure, compare, and explain experimental circuit results.

- Demonstrate critical reasoning and problem solving abilities through the use of simulation software for designing and troubleshooting practice.

Forest Management Technology (A15200)

I. Description/Purpose

The Forest Management Technology curriculum is designed to help students acquire technical knowledge, understanding, and abilities essential in developing, conserving, and utilizing forest resources.

Students develop an understanding and ability in the principles and practices of forest resource management. Students will spend much of their time in field training situations where emphasis is placed on the practical application of this knowledge and skill.

Graduates should be qualified for entry into positions as forest technicians with federal, state, and private forestry enterprises. Graduates will have competencies in forest protection, forest management, forest procurement and in performing various related technical activities.

II. Program Learning Outcomes:

- Students will demonstrate knowledge of and be evaluated on their ability to perform essential practices in developing, conserving, and utilizing sustainable forest resources.
- Graduates will be required to demonstrate competency in both classroom knowledge and field practices relating to their area of study.
- Students will calculate and analyze data and apply the results to common forest management problems.
- Graduates will demonstrate competency in the following areas of study: Dendrology, Forest Safety and Woodsmanship, Soil Science, Forest Mensuration, Silviculture, GPS and GIS Technology, Forest Environmental Studies, Logging and Marketing, Forest Equipment Operation, Aerial Photography and Remote Sensing, Forest Surveying, Fire Control, Prescribed Fire, Forest Insects, Forest Tree Diseases, Chemical Application, and Wildlife Management.
- Graduates will be able to cite specific sustainable forest management issues on a regional, national, and global level.
- Graduates will recognize the history of forestry in this country and future trends in the field.
- Students will be assessed on their ability to perform independent and team oriented tasks

Industrial Maintenance Technology (A50240)

I. Description/Purpose

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

II. Program Learning Outcomes:

- Demonstrate a working knowledge of mechanical systems, hydraulic and pneumatic systems, and electrical and electronic systems.
- Create, interpret and modify industrial blueprints and schematics.

- Perform preventive maintenance and troubleshoot a variety of industrial systems.
- Maintain air conditioning and heating systems for equipment and facilities.
- Operate machine shop equipment.
- Demonstrate basic welding skills.
- Identify and requisition parts.

Livestock and Poultry Technology (A15280, D15280, & C15280)

I. Description/Purpose

The Livestock and Poultry Technology curriculum is designed to prepare students for careers in the production, processing and distribution of livestock and poultry and their products according to scientific principles essential to efficient and profitable operation.

Students should learn skills necessary for the operation of efficient and profitable livestock enterprises. Courses are included in the areas of production practices, animal health, nutrition, reproduction, and management.

Graduates are qualified for entry-level jobs as herd or flock managers, field service persons, feed sales persons, equipment sales persons, feed mill worker, and buyers of poultry and livestock.

II. Program Learning Outcomes:

- Learn skills necessary to operate efficient and profitable livestock enterprises.
- Identify proper production practices, good animal health, proper animal nutrition, good reproduction and management practices.
- Demonstrate the ability to perform calculations needed in the field, use good communication skills and apply personal computer skills to the agriculture industry.
- Demonstrate a fundamental understanding of the humanities and social sciences as they relate locally, regionally and globally.
- Utilize positive interpersonal skills to interact with individuals from diverse groups.
- Utilize principles of critical thinking to analyze problems that occur in the field and make logical decisions as managers to correct them.

Machining Technology (A50300 & D50300)

I. Description/Purpose

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, government agencies and in a wide range of specialty machining job shops.

II. Program Learning Outcomes:

- Demonstrate the ability to read and interpret a mechanical working drawing.
- Students will safely and competently perform in the following areas of study: Precision measurement, Layout, Drilling, Sawing, Turning, Milling, and Precision Grinding.
- Demonstrate the ability to perform calculations needed in the shop, and use good communication skills.
- Demonstrate the skill to program, operate, and setup, a computer numerical control (CNC) turning centers.
- Demonstrate the skill to program, operate, and setup, a computer numerical control (CNC) machining centers.
- Anticipate, choose and troubleshoot the proper tooling based on manufacturing requirements.

- Students will be required to demonstrate competency in defining geometry, program development, and code generation of a complex part using CAM software.
- Students will be able to manufacture a complex assemblies to specification

Mechanical Engineering Technology – Drafting & Design (A4032A)

I. Description/Purpose

Drafting and Design is a concentration under the curriculum title of Mechanical Engineering Technology. This curriculum prepares graduates to draft and/ or design machine parts, mechanisms, and mechanical systems. Computer-Aided-Drafting (CAD) will be emphasized as the primary method on producing drawings/documentation.

II. Program Learning Outcomes:

- Construct basic and advanced CAD drawings.
- Prepare complete working drawings using mechanical drafting techniques.
- Apply concepts of hydraulic/pneumatic to mechanical design.
- Apply concepts of statics/strength of materials to mechanical design.
- Design mechanical systems that include but are not exclusive to: Jig & Fixture Design, Gears, Cams, & Pulleys, Linkages
- Use traditional machine shop practices to create and measure machined parts.
- Prepare mathematical engineering technology calculations and apply to mechanical designs.

Turfgrass Management Technology (A15420)

I. Description/Purpose

The Turfgrass Management Technology curriculum is designed to provide skills necessary to perform duties related to management of golf courses, sports fields, lawn care, irrigation design, and sod production.

Course work includes turfgrass management, irrigation, ornamental horticulture, soil science, entomology, plant pathology, as well as courses in communications, computers, and the social sciences.

Graduates should qualify for employment at golf courses, local, state, and national parks, sports complexes, highway vegetation and turf maintenance companies, and private and public gardens. Graduates should also be prepared to take the examination for the North Carolina pesticide licenses.

II. Program Learning Outcomes:

- Identify turfgrass species through characteristics and reproductive stages and develop both establishment and maintenance plans for high quality turfgrass.
- Identify various soil and weed types and apply principles to make recommendations regarding nutrient management of soil and methods of weed control
- Demonstrate the ability to perform calculations, use communication skills, and apply personal computer skills to the agricultural industry
- Demonstrate a fundamental understanding of the humanities and social sciences as they relate locally, regionally, and globally,
- Complete a functional design for a turfgrass irrigation system.
- Operate and maintain turfgrass management equipment.
- Identify turfgrass pests, select the proper pesticide, develop pest control program and use integrated pest management.

Welding Technology (D50420)

I. Description/Purpose

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

Business & Computer Technologies Programs

Accounting (A25100)

I. Description/Purpose

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the “language of business,” accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

II. Program Learning Outcomes:

- Apply generally accepted accounting principles and practices, as established by national and international standard setting entities, to analyze, record, summarize, report, and interpret accounting information related to transactions for business, not-for-profit, and government entities.
- Use payroll skills to produce payroll records, salary and withholding computations, and payroll tax forms.
- Prepare individual and business income tax returns using applicable taxation principles.
- Communicate effectively to a variety of audiences using appropriate written, spoken, and/or visual methods.
- Apply legal principles, ethics analysis, and critical-thinking skills to business decisions.
- Demonstrate knowledge of computer concepts and proficiency with software applications.
- Apply basic economic and monetary principles to business situations in our global economy.
- Demonstrate interpersonal skills that reflect an understanding of diversity, the need for teamwork, and the global nature of society.

Business Administration-Marketing & Retailing (A2512F)

I. Description/Purpose

Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing.

Course work includes: marketing, retailing, merchandising, selling, advertising, computer technology, and management.

Graduates should qualify for marketing positions within manufacturing, retailing, and service organizations.

II. Program Learning Outcomes:

- Apply basic business, social, and ethical strategies for effectively managing and operating a business enterprise in a global and technology based economy.
- Demonstrate an understanding of basic business law, its practices and principles, and the legal environment in which business operates.
- Demonstrate the ability to use a personal computer in the workplace and have a basic understanding of computer hardware, software applications, Internet, and operating systems.
- Apply mathematical concepts and methods to understand, analyze, and to solve mathematical problems necessary to perform job related tasks.
- Apply general accounting principles and practices that are necessary for recording, sorting, summarizing, and reporting financial data related to business transactions and decision-making.
- Apply basic principles, practices, strategies, and tactics in marketing, advertising and sales promotion, retail management, and the use of marketing research tools and techniques used for data collection in today's business environment.
- Demonstrate effective visual merchandising techniques and concepts that are required in store layouts and designs, displays, inventory control, merchandise handling, promotional activities, and customer service.
- Applying basic economic principles and concepts, and monetary theories, supply and demand models, and international trade policies to individual and business situations.
- Communicate information effectively in today's technology oriented business environment using written, spoken, and/or visual methods.
- Demonstrate interpersonal skills that reflect an understanding of diversity and the need for teamwork.

Business Administration-Operations Management (A2512G)

I. Description/Purpose

Operations Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to educate individuals in the technical and managerial aspects of operations for manufacturing and service industries.

Emphasized are analytical reasoning, problem solving, and continuous improvement concepts required in today's dynamic business and industry environments. Concepts include quality, productivity, organizational effectiveness, financial analysis, and the management of human, physical, and information resources.

Graduates should qualify for leadership positions or enhance their professional skills in supervision, team leadership, operations planning, quality assurance, manufacturing and service management, logistics/distribution, health and safety, human resources management, and inventory/materials management.

II. Program Learning Outcomes:

- Understand the components of strategic, operational, and tactical planning for organizational effectiveness—organization decision-making, vision, goals and performance management.
- Apply statistical process control techniques, critical thinking, and quantitative and qualitative analysis to measure the effectiveness of organizational continuous improvement activities.
- Apply basic business, marketing, social, and ethical principles and strategies for effectively managing and operating a business enterprise in a global and technology-based economy.
- Demonstrate an understanding of basic business law, its practices and principles, and the legal environment in which business operates.
- Demonstrate the ability to use a personal computer in the workplace and have a basic understanding of computer hardware, software applications, Internet, and operating systems.

- Apply mathematical concepts and methods to understand, analyze, and to solve mathematical problems necessary to perform job related tasks
- Apply general accounting principles and practices that are necessary for recording, sorting, summarizing, and reporting financial data related to business transactions and decision-making.
- Apply basic economic principles and concepts, monetary theories, supply and demand models, and international trade policies to individual and business situations.
- Communicate information effectively in today's technology oriented business environment using written, spoken, and/or visual methods.
- Demonstrate interpersonal skills that reflect an understanding of diversity and the need for teamwork.

Business Administration – E-Commerce (A2512I)

I. Description/Purpose

Electronic Commerce is a concentration under the title of Business Administration. This curriculum is designed to prepare individuals for a career in the Internet economy.

Course work includes topics related to electronic business, Internet strategy in business, basic business principles in the world of E-Commerce. Students will be able to demonstrate the ability to identify and analyze such functional issues as planning, technical systems, marketing, security, finance, law, design, implementation, assessment and policy issues at an entry level.

Graduates from this program will have a sound business educational base for life-long learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and small to medium size businesses or industry.

II. Program Learning Outcomes:

- Apply basic business, social, and ethical strategies for effectively managing and operating a business enterprise in a global and technology-based economy.
- Demonstrate an understanding of basic business law, its practices and principles, and the legal environment in which business operates.
- Demonstrate the ability to use a personal computer in the workplace and have a basic understanding of computer hardware, software applications, Internet, and operating systems.
- Apply mathematical concepts and methods to understand, analyze, and to solve mathematical problems necessary to perform job related tasks
- Apply general accounting and tax principles and practices that are necessary for recording, sorting, summarizing, and reporting financial and tax data related to business transactions and decision-making.
- Apply basic principles, practices, strategies, and tactics in marketing, sales, advertising, insurance, and management as appropriate, in today's business environment.
- Apply basic economic principles and concepts, monetary theories, supply and demand models, and international trade policies to individual and business situations.
- Communicate information effectively in today's technology oriented business environment using written, spoken, and/or visual methods.
- Apply E-Commerce planning and implementation principles of management, marketing, production, purchasing, financing, and worldwide web/Internet applications to a business environment.
- Define electronic business and demonstrate an understanding of the benefits of E-Commerce as a foundation for developing plans leading to electronic business implementation.
- Develop and implement a plan for E-Commerce in a small- to medium-sized business.
- Demonstrate competency in suggestion various finance sources, maintaining records and statements, and budget forecasts.

Business Administration (A25120 & D25120)

I. Description/Purpose

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision-making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

A diploma in Business Administration is awarded by the College upon completion of this program.

II. Program Learning Outcomes:

- Apply basic business, social, and ethical strategies for effectively managing and operating a business enterprise in a global and technology-based economy.
- Demonstrate an understanding of basic business law, its practices and principles, and the legal environment in which business operates.
- Demonstrate the ability to use a personal computer in the workplace and have a basic understanding of computer hardware, software applications, Internet, and operating systems.
- Apply mathematical concepts and methods to understand, analyze, and to solve mathematical problems necessary to perform job related tasks
- Apply general accounting and tax principles and practices that are necessary for recording, sorting, summarizing, and reporting financial and tax data related to business transactions and decision-making.
- Apply basic principles, practices, strategies, and tactics in marketing, sales, advertising, insurance, and management as appropriate, in today's business environment.
- Apply basic economic principles and concepts, monetary theories, supply and demand models, and international trade policies to individual and business situations.
- Communicate information effectively in today's technology oriented business environment using written, spoken, and/or visual methods.
- Understand personal finance strategies, including asset management, the use of credit, saving and investing, individual retirement accounts, and debt management.
- Demonstrate interpersonal skills that reflect an understanding of diversity and the need for teamwork.

Information Systems Technology (A25260, D25260, & C25260)

I. Description/Purpose

The Information Systems curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information systems needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and business applications design and implementation.

The Information Systems curriculum at Wayne Community College is designed to train graduates to use the hardware and software of personal computers, providing graduates with the broad spectrum of skills needed to productively use small computers in organizational settings.

A diploma in Information Systems is awarded by the College upon completion of this program.

II. Program Learning Outcomes:

- Think logically and make rational decisions in solving computer related problems using sound theories and proven practices.
- Possess a vast array of knowledge related to computer technologies such that they can transition to new and future processes with minimum training.
- Be able to write and/or modify computer programs using the latest computer languages.
- Use popular Relational Database Management Systems and Web-Based software to develop customized systems.
- Demonstrate a working knowledge of Networking, Hardware and Help-Desk functions as related to computers.
- Possess an expert knowledge in using off-the-shelf software such as word processing, spreadsheet, database and presentation software.
- Communicate information effectively in today's technology oriented business environment using written, spoken, and/or visual methods.
- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Demonstrate knowledge of accepted ethical behavior and interpersonal skills that reflect an understanding of diversity and the need for teamwork.
- Understand the importance of keeping abreast of technological changes that effect the office professional.

**Information Systems Technology–Network Administration & Support
(A 2526D & C2526D)**

I. Description/Purpose

Network Administration and Support is a concentration under the curriculum title of Information Systems. This curriculum prepares students to install and support networks and develops strong analytical skills and extensive computer knowledge.

Course work includes extensive hands-on experience with networks. Classes cover media types, topologies, and protocols with installation and support of hardware and software, troubleshooting network and computer problems, and administrative responsibilities.

Graduates should qualify for positions such as: LAN/PC administrator, microcomputer support specialist, network control operator, communications technician/analyst, network/computer consultant, and information systems specialists. Graduates should be prepared to sit for certification exams which can result in industry-recognized credentials.

A Certificate in Information Systems-Networking is awarded by the College upon completion of this program.

II. Program Learning Outcomes:

- Install and upgrade networks and servers for optimal performance.
- Manage client services and network features and optimize network performance.
- Select appropriate computer equipment, upgrade and maintain existing equipment, and troubleshoot and repair non-functioning personal computers.
- Analyze a problem and design an appropriate solution using a combination of tools and techniques.
- Analyze, diagnose, research, and fix network hardware problems.
- Understand the fundamentals of telecommunication and networking.
- List the key internetworking functions of the OSI Networking Layer and how they are performed in a variety of router types.
- Provide solutions for network routing problems, identify ISDN protocols, channels, and function groups, and describe the Spanning Tree protocol.

- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Communicate information effectively using a variety of written, spoken, and/or visual methods.
- Demonstrate knowledge of accepted ethical behavior and interpersonal skills that reflect an understanding of diversity and the need for teamwork.
- Understand the importance of keeping abreast of technological changes that effect the office professional

Internet Technologies (A25290)

I. Description/Purpose

The Internet Technologies curriculum is designed to prepare graduates for employment with organizations that use computers to disseminate information via the Internet internally, externally, and/or globally. The curriculum will prepare students to create and implement these services.

Course work includes computer and Internet terminology and operations, logic, operating systems, database and data communications/networking, and related topics. Studies will provide opportunities for students to implement, support, and customize industry-standard Internet technologies.

Graduates should qualify for career opportunities as webmasters, Internet and intranet administrators, Internet applications specialists, Internet programmers and Internet technicians. Government institutions, industries, and other organizations employ individuals who possess the skills taught in this curriculum.

A certificate in Internet Technologies is awarded by the College upon completion of this program.

II. Program Learning Outcomes:

- Solve problems and make decisions using basic personal computer skills.
- Identify the diverse advantages of computer technology.
- Apply basic programming skills to organize and navigate web pages.
- Use web development and database skills to store, retrieve, and query data through HTML forms.
- Demonstrate web design skills to create web pages with HTML and other web authoring tools.
- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Communicate information effectively using a variety of written, spoken, and/or visual methods.
- Demonstrate knowledge of accepted ethical behavior and interpersonal skills that reflect an understanding of diversity and the need for teamwork.
- Understand the importance of keeping abreast of technological changes that affect the office professional.
- Design functional e-commerce websites using computers and other technologies.

Medical Office Administration (A25310)

I. Description/Purpose

The Medical Office Administration curriculum prepares individuals for employment in medical and other healthcare-related offices. Course work includes medical terminology; information systems; office management; medical coding, billing, and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments.

Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other healthcare-related organizations.

II. Program Learning Outcomes:

- Demonstrate the ability to use a personal computer in the workplace and have a basic understanding of computer hardware, software applications, the Internet, and operating systems.

- Produce a variety of business and medical documents using correct grammar, punctuation, and spelling in a form acceptable in today's business environment.
- Operate office transcription equipment in transcribing mailable documents from different areas of medicine in various formats.
- Build an extensive medical vocabulary and apply an understanding of basic anatomical systems to the interpretation of records and reports in a variety of medical settings.
- Demonstrate an understanding of the various types of health insurance and apply standard coding guidelines in processing insurance claim forms.
- Use the alphabetic, geographic, numeric, and subject methods of filing in storing and retrieving records both manually and electronically.
- Apply general accounting principles and concepts in analyzing, recording, summarizing, and reporting data related to business transactions.
- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Communicate information effectively using a variety of written, spoken, and/or visual methods.
- Demonstrate knowledge of current medical law, accepted ethical behavior, and interpersonal skills that
- Reflect an understanding of diversity and the need for teamwork.

Medical Transcription (D25320)

I. Description/Purpose

The Diploma in Medical Transcription is designed to prepare students to become medical language specialists who interpret and transcribe dictation by physicians and other healthcare professionals in order to document patient care and facilitate delivery of healthcare services. Graduates should qualify for employment in hospitals, medical clinics, doctors' offices, private transcription businesses, research facilities, insurance companies, and publishing companies. After acquiring work experience, individuals can apply to the American Association for Medical Transcription to become Certified Medical Transcriptionists.

II. Program Learning Outcomes:

- Use office software applications to efficiently produce and edit a variety of business and medical documents in a form acceptable in today's business environment.
- Proofread documents for logical content and for correct format, grammar, punctuation, and spelling.
- Operate office transcription equipment in transcribing mailable documents from different areas of medicine in various formats.
- Build an extensive medical vocabulary and apply an understanding of basic anatomical systems to the interpretation of records and reports in a variety of medical settings.
- Demonstrate an understanding of the various types of health insurance and apply standard coding guidelines in processing insurance claim forms.
- Use the alphabetic, geographic, numeric, and subject methods of filing in storing and retrieving records both manually and electronically.
- Describe the laws that govern the principles of medicine and each medical service available in the community and explain the meanings of AMA principles of medical ethics.
- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Use skills, technical information, and judgment required for assisting an administrator.
- Function as a responsible member of the work force and society.

Office Systems Technology (A25360 & C25360) Desktop Publishing/Word Processing

I. Description/Purpose

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

A Certificate in Office Systems Technology/Desktop Publishing is awarded by the College upon completion of this program.

II. Program Learning Outcomes:

- Demonstrate the ability to use a personal computer in the workplace and have a basic understanding of computer hardware, software applications, the Internet, and operating systems.
- Use skills, technical information, and judgment required for assisting an administrator.
- Produce a variety of business documents using correct grammar, punctuation, and spelling in a form acceptable in today's business environment.
- Operate office transcription equipment in transcribing mailable documents from different areas of medicine in various formats.
- Use the alphabetic, geographic, numeric, and subject methods of filing in storing and retrieving records both manually and electronically.
- Apply general accounting principles and concepts in analyzing, recording, summarizing, and reporting data related to business transactions.
- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Communicate information effectively using a variety of written, spoken, and/or visual methods.
- Demonstrate knowledge of accepted ethical behavior and interpersonal skills that reflect an understanding of diversity and the need for teamwork.
- Understand the importance of keeping abreast of technological changes that affect the office professional.

Real Estate (C25400)

I. Description/Purpose

The Real Estate curriculum provides the pre-licensing education required by the North Carolina Real Estate Commission, prepares individuals to enter the profession, and offers additional education to meet professional development needs.

Course work includes the practices and principles of real estate, emphasizing financial and legal applications, property development, and property values.

Graduates should qualify for North Carolina Real Estate Sales and Broker examinations. They should be able to enter apprenticeship training and to provide real estate services to consumers in a competent manner.

II. Program Learning Outcomes:

- Demonstrate the basic knowledge and skills necessary to act as a real estate salesperson
- Pass the real estate licensing examination
- Recall definitions of common terms, basic concepts or principles, and basic procedures or methods.
- Comprehend or understand facts, principles or procedures.
- Apply knowledge of facts, principles and procedures to common fact situations encountered in the real estate practices and to a wide variety of fact situations.

- Demonstrate basic and substantial analytical and evaluation skills.

College Transfer Programs

Associate Degree Programs in Arts, Science, and Fine Arts (A10100, A10200, A10400)

I. Description/Purpose

The Associate in Arts Degree is for students desiring to pursue liberal arts and pre-professional programs in areas other than the fine arts and the sciences.

II. Program Learning Outcomes:

- Recognize characteristics of life-long learning: independent thinking, self-discipline, and ethical behavior
- Demonstrate the technological skills needed to advance academic pursuits at a senior institution
- Apply a set of analytical and problem-solving skills to real-world situations
- Demonstrate interpersonal skills that reflect an understanding of diversity and the need for teamwork
- Communicate information to a variety of audiences using appropriate written, spoken, and/or visual methods