Catawba County Schools

2024-2025

Career Technical Education
(CTE)
Course Guide

Photo—Lake Lookout

















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2024-2025

Superintendent's Message

February, 2024

The Career and Technical Education (CTE) Program in Catawba County Schools play a vital role in preparing our students for greater success in college and career opportunities during and after high school graduation. Students completing CTE courses and acquiring certifications serves as a major factor in the economic development within Catawba County. The purpose of this guide is to provide our high school students and parents with the up-to-date information about the CTE Program opportunities and courses that lead to post-secondary education completion and their connection to making future career and job decisions.

As the registration process begins this spring, students and parents are encouraged to use this guide to assist in choosing CTE courses that complete North Carolina graduation requirements and the attainment of post-secondary credentials, degrees, and work-based learning opportunities that lead to future jobs and careers.

Catawba County Schools CTE Program has strong partnerships with local businesses to offer internship opportunities for our students during the school year and summer as well as educational partnerships with Catawba Valley Community College (CVCC) allowing students to participate in college courses, credential, and degree completion. These partnerships are excellent in providing students opportunities to take college courses while attending high school and serve to assist in saving parents and students on the rising costs of college tuition.

Sincerely,

Matthew W. Stover, Ed.D. Superintendent



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School Directory



LEARNING THAT WORKS FOR CATAWBA COUNTY

Importance of this Guide

This guide has been prepared to help both parents and students with career information and the identification of courses and opportunities that will benefit students throughout their high school, college, and life experiences. All students are encouraged to review the courses within each of the career pathways and select courses for the registration process that are related to future job and career interests. Likewise, parents are encouraged to review the information in this guide and assist their students with course choices that are of interest as well as beneficial for future career pathways and opportunities.

In compliance with federal laws, Catawba County Schools administers all locally operated education programs, employment activities and admissions without discrimination because of race, religion, national or ethnic origin, color, age, marital status, pregnancy, military service, disability, or gender, and provides equal access to the Boy Scouts and other designated youth groups, except where exemption is appropriate and allowed by law. Questions related to the Catawba County Schools CTE Program should be directed to Dr. Jeff Isenhour, CTE Director at (828) 695-2670.



Internship Opportunities for All Catawba County High School Students

Catawba County Schools offers students a variety of work-based learning experiences for high school students, including internships, pre-apprenticeships, and full apprenticeships that involve possible salary and tuition benefits.

Students participating in internships at the high school level are eligible to receive honors level credit. All high school students are encouraged to meet with their school's career development coordinator (CDC) for more information on internship participation and application.





Learning that works for America

"Students who participate in work-based learning have experiences that make them more competitive for employment opportunities."

SOURCE: TALENT DEVELOP-MENT PIPELINE FOR YOUTH: CREATING A CAREER-READY WORKFORCE IN NC

Through work-based learning, students can gain a variety of skills that positively impact their education in the classroom and set them on a path to their futures. For instance, research points to higher postsecondary GPAs earned by students who participated in work-based experiences in high school. Data has also demonstrated better employment outcomes for students who participate in workplace learning

SOURCE: CTE Policy Watch, ACTE (2017



CTE Internships By Semester

The Catawba County Schools CTE Program is committed to providing work-ready students the opportunity to apply their skills and gain experiences with numerous business and community partners. An internship provides work-based learning opportunities for high school students to have hands-on experiences in areas of academic or career interests prior to college or post-secondary training. In addition, an internship helps students obtain a more realistic view of a career area, make better decisions concerning post-secondary education, gain experience, and develop contacts that may help them when applying for college programs, scholarships, and jobs. Internships can be paid or unpaid. Paid internships must receive prior approval from the Catawba County Schools CTE Director prior to the internship beginning.

Receiving Semester Academic Credit for Internship

Students participating in an internship during a regular semester are eligible to earn one full unit of credit. In order to receive one full unit of credit, a student must complete a <u>total of 120 internship hours</u> and all required documentation throughout the semester. Internships do not carry over into the next semester and must be completed by the end of the semester the internship began. The credit becomes part of the student's permanent high school transcript.

Schedule

The internship schedule is determined by the business sponsor and student. All participants are required to have reliable transportation to and from the internship site(s).

Internship Procedures and Eligibility

To be considered for an internship placement, applications must be received by closing deadlines. All applicants must:

- Complete the internship application
- Be in good standing (academic and behavior)
- Attend school regularly

CTE Summer Internships

Receiving Summer Academic Credit for Internships

Students earning one full unit of credit during the summer must complete a total of 120 internship hours and all required documentation within the summer period. Internships during the summer do not carry into the next semester or school year. The credit becomes part of the student's permanent high school transcript.

Students Participating in Internships are eligible to receive honors level credit by meeting requirements set forth by Catawba County Schools CTE Program.

CTE Courses

The CTE Course Guide is arranged by pathways and consists of course descriptions, recommended grade levels, course prerequisites, the number of credits per course upon successful completion, the locations where courses are being offered by high school, and safety/proof of insurance requirements. Students and parents are asked to carefully read through each of the course descriptions and select those courses of interest as well as those that are pertinent to future career choices and considerations. By registering for a course or work-based learning opportunity, a student is making a commitment to take the course and is expected to fulfill his/her commitments with integrity and completeness.

CTE Honors and Advanced Placement (AP) level courses are designed to meet the needs of students whose cognitive skills are above grade level and are in an attempt to pursue higher level expectations and rigor. All CTE Honors and AP courses are weighted. Throughout the course guide, inherently honors level courses and AP courses have been identified for selection purposes.

At each high school, counselors and Career Development Coordinators (CDCs) can assist students in making course decisions involving Career Technical Education courses, pathways, and career advisement. Likewise, each CDC provides direct support for internships and all work-based learning opportunities provided for students.

NOTE: Some courses are not offered at all high schools or every semester. Students will need to be aware of course offerings at their respective high school. The purpose of this course catalog is to assist in that awareness. If students or parents have questions regarding if or when a course will be offered, contact the school's CTE Career Development Coordinator or counseling department. CTE course offerings are determined at each school based on teacher certification and student need; courses will vary among Catawba County High Schools. Recommended grade levels are based on ensuring students take courses in the proper sequence defined by required prerequisites and any requirements as required by the North Carolina Department of Public Instruction (NCDPI).

High School Codes for Course Offerings:

B—Bandys High School

BH—Bunker Hill High School

F—Fred T. Foard High School

M—Maiden High School

S—St. Stephens High School

Online Catawba

CTE Classes Online

The CCS CTE Program offers students the opportunity to take several courses virtually through the Online Catawba Program. Specific courses that are offered through this platform are listed within the course guide.



Getting to know your High School Career Development Coordinator

Each high school in Catawba County Schools is fortunate to have a Career Development Coordinator or CDC assigned to that school. The job of a CDC is important in offering course and career guidance to students and provide direct assistance and monitoring in the placement of work-based learning opportunities related to internships, apprenticeships, and job shadowing.

Career Development Coordinators by Feeder:

Bandys High School—Jennifer McCreary

Bunker Hill High School—Shelly Isenhour-Essary

Fred T. Foard High School—Daniel Cadle

Maiden High School—Adam Windham

St. Stephens High School—Jeanne Davis

All Middle Schools—Angela Raby

Example of Pathway Guide

The course sections of this guide are organized in pathways under each program area within CTE. To

better communicate and help understand the flow of courses that students must take, each program area contains a map of courses with directional arrows in order of sequence for registration purposes.

Courses in Yellow serve as the first level or prerequisite course for the pathway and must be successfully completed before continuing to the next level course. Courses in Green serve as the concentrator course for the pathway. Concentrator courses are extremely important and show that a student has successfully completed a CTE Program of Study in a single pathway. Students who concentrate in a CTE Pathway have a strong foundation of technical knowledge and employability skills to complement their academic studies. Concentrator courses prepare students for both college and career options.

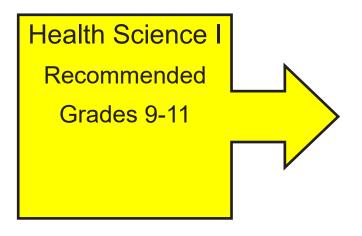
Courses in Blue serve as Career Pathway Major Courses. These courses provide students with specific skills at the highest level within a pathway and include offerings such as an Advanced Studies Courses and/or Work-Based Learning Experiences (Internships).

Example of Pathway Guide



Health Science Education Pathways

Biomedical Technology (BTCP)



Biomedical Technology I

Recommended

Grades 10-12

Concentrator Course

Health Science I

Offered: All high schools Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course focuses on human anatomy, physiology and human body diseases and disorders, and biomedical therapies. Students will learn about health care careers within the context of human body systems. Projects, teamwork, and demonstrations serve as instructional strategies that reinforce the curriculum content.

Biomedical Technology I Offered: All High Schools Prerequisite: Health Science I

Credit: 1 Unit

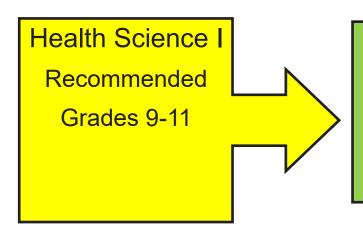
Recommended Grade Level: 10-12

This course challenges students to investigate current trends in healthcare. Topics include ethics, forensic medicine, infectious diseases, organ transplants, cell biology and cancer, and bio-

medical research.



Healthcare Professional (HPCP)



Health Science II

Recommended

Grades 10-12

Concentrator Course



Offered: All high schools Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course focuses on human anatomy, physiology and human body diseases and disorders, and biomedical therapies. Students will learn about health care careers within the context of human body systems. Projects, teamwork, and demonstrations serve as instructional strategies that reinforce the curriculum content.

Health Science II

Offered: All high schools
Prerequisite: Health Science I

Credit: 1 Unit

Recommended Grade Level: 10-12

This course is designed to help students expand their understanding of financing and trends of healthcare agencies, fundamentals of wellness, legal and ethical issues, concepts of teamwork, and effective communication. Students will learn health care skills, including current CPR and first aid training.

Nursing Fundamentals Offered: All High Schools Prerequisite: Health Science II

Credit: 2 Units (Honors Course Credit)
Recommended Grade Level: 12

This course is designed for students interested in medical careers where personal care and basic nursing skills are used. This course is an enhanced adaptation of the North Carolina Division of Health Service Regulation (DHSR) Nurse Aide I (NAI) curriculum and helps prepare students for the National Nurse Aide Assessment (NNAAP). Students who pass the NNAAP become listed on the NC NAI Registry. Work-based learning strategies appropriate for this course include a required clinical internship in a long-term care agency. Healthcare agencies may require testing for tuberculosis and/or other diseases, vaccinations for COVID, and a criminal record check for felonies related to drugs. Cooperative education is not available for this course.

Enrollment is limited per North Carolina Board of Nursing (BON) Administrative Rule 21 NCAC 36.0318(i), which requires the ratio of teacher to nurse aide students be 1:10 or less during lab instruction, demonstration, skills practice, and while in the clinical area. DHSR applies BON Rule to the classroom training area.

Nursing Fundamentals

Recommended

Grade 12

Career Major Course

EMPLOYMENT FACT:

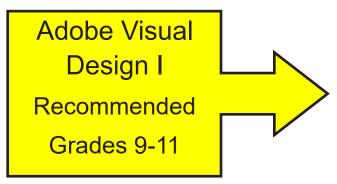
By 2033, North Carolina faces an estimated shortage of 12,500 RNs (or 11% of the projected RN workforce). Shortages in other professional areas, including physicians and allied health workers, will also impact healthcare. (Source: NCHA)





Trade, Technology, Engineering & Industrial Education

Adobe Academy (ADAC)



Adobe Visual Design II

Recommended

Grades 10-12

Concentrator Course

Adobe Visual Design I Offered: B, M, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

In this course, students develop skills that lay the foundation for photography and producing print-ready communications: graphic design principles, visual comps, illustration, print production development, shared project management skills such as interviewing and project scheduling, peer review, and redesign. Project activities focus on developing effective communications that can be deployed in print, web, or video. Students develop a variety of images, such as raster-based graphics, logos, advertisements, posters, and illustrations. They produce design documents and visual comps that clients review. Students culminate the semester with a portfolio project, reflect on the skills and topics covered thus far, and begin exploring the career areas that interest them in visual design. This course is aligned to the Adobe Certified Associate Photoshop and Adobe Certified Associate Illustrator certification.

Adobe Visual Design II Offered: B, M, S

Prerequisite: Adobe Visual Design

Credit: 1 Unit

Recommended Grade Level: 10-12

This course builds on student design and development skills by focusing on longer print production projects as well as more indepth content and advanced techniques for graphics and layout development. Students continue to produce rich print communications as they focus on effective graphic design, project management, design specifications, and iterative development. Students develop graphic design and print production skills that solve specific communication challenges to meet client and audience needs. This course is aligned to the Adobe Certified Associate InDesign certification, and also integrates Adobe Photoshop and Adobe Illustrator skills.

Carpentry (CARP)

Construction Core Recommended Grades 9-11

Construction Core Offered: F, M, S Prerequisite: None

Credit: 1 Unit Grade Level: 9-11

This course covers the National Center for Construction Education and Research (NCCER) Core certification modules required for all of the NCCER curriculum-area programs, and an additional Green module. The course content includes: basic safety, introduction to construction math, introduction to hand tools, introduction to power tools, introduction to construction drawing blueprints, material handling, basic communication skills, basic employability skills, and "Your Role in the Green Environment." The additional Green module has been added to provide students with instruction in the green environment, green construction practices, and green building rating systems.

Carpentry I
Offered: F, M, S

Prerequisite: Construction Core

Credit: 1 Unit Grade Level: 10-12

This course covers basic carpentry terminology and develops technical aspects of carpentry with emphasis on the development of introductory skills to include orientation to the trade, building materials, fasteners, and adhesives, hand and power tools, reading plans and elevations, introduction to concrete, reinforcing materials, and forms, floor system construction procedures, wall and ceiling framing procedures, and basic stair layout.

*Due to potentially hazardous processes and equipment a maximum enrollment of 20 is recommended.

Closed toe shoes are required for all students enrolled in this course.

Carpentry III
Offered: F, M, S

Prerequisite: Carpentry II
Credit: 1 Unit (Honors Level Course)
Recommended Grade Level: 11-12

Carpentry I
Recommended
Grades 10-12

Carpentry II
Recommended
Grades 10-12

Concentrator Course

Carpentry III

Recommended

Grades 10-12

Career Pathway Major

Carpentry II
Offered: F, M, S

Prerequisite: Carpentry I
Credit: 1 Unit (Honors Level Course)

Grade Level: 10-12

This course builds on skills mastered in Carpentry I and provides an emphasis on roof framing procedures, roofing applications, thermal and moisture protection, windows and exterior doors installation, exterior finishing, and the introduction to weatherization module.

*Due to potentially hazardous processes and equipment a maximum enrollment of 20 is recommended.

Closed toe shoes are required for all students enrolled in this course.



This course builds on skills mastered in Carpentry II and develops advanced technical aspects of carpentry with the emphasis on commercial drawing, cold-formed steel framing construction methods, drywall installations, drywall finishing procedures, doors and door hardware installation, and windows, door, floor and ceiling trim procedures. This course helps prepare students for National Center for Construction Education and Research (NCCER) certification.

* Due to potentially hazardous equipment, a maximum enrollment of 20 is recommended. Closed toe shoes are required for all students enrolled in this course.

Masonry (MASO)

Construction Core

Recommended

Grades 9-11



Credit: 1 Unit Grade Level: 9-11

This course covers the National Center for Construction Education and Research (NCCER) Core certification modules required for all of the NCCER curriculum-area programs, and an additional Green module. The course content includes: basic safety, introduction to construction math, introduction to hand tools, introduction to power tools, introduction to construction drawing blueprints, material handling, basic communication skills, basic employability skills, and "Your Role in the Green Environment." The additional Green module has been added to provide students with instruction in the green environment, green construction practices, and green building rating systems. Also it will help students better understand their personal impacts on the environment and make them more aware of how to reduce their carbon footprint. English Language Arts and Mathematics are reinforced.

* Due to potentially hazardous equipment, a maximum enrollment of 20 is recommended.

Closed toe shoes are required for all students enrolled in this course.

Masonry I Offered: M

Prerequisite: Construction Core Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 10

This course covers basic masonry terminology and develops technical aspects of the masonry industry with emphasis on the development of introductory skills to include the introduction to masonry, masonry tools and equipment, measurement, drawings and specifications, mortar procedures, and masonry units and installation techniques. This course helps prepare students for National Center for Construction Education and Research (NCCER) certification.

* Due to potentially hazardous equipment, a maximum enrollment of 20 is recommended.

Closed toe shoes are required for all students enrolled in this course.

Masonry I

Recommended

Grades 10-12

Masonry II

Recommended

Grades 10-12

Concentrator Course



Masonry III

Recommended

Grades 10-12

Career Pathway Major

Masonry II Offered: M

Prerequisite: Masonry I

Credit: 1 Unit Grade Level: 10-12

This course is designed for students to further develop skills mastered in Masonry I with an emphasis on residential plans and drawing interpretation, residential masonry, reinforced masonry, masonry openings and metalwork.

*Due to potentially hazardous processes and equipment a maximum enrollment of 20 is recommended.

Closed toe shoes are required for all students enrolled in this course.

Masonry III Offered: M

Prerequisite: Masonry II

Credit: 1 Unit (Honors Level Course)

Recommended Grade Level: 11-12

This course builds on skills mastered in Masonry II and provides an emphasis on advanced laying techniques, construction techniques and moisture control procedures, and construction, inspection, and quality control processes. Introductory skills for the Crew Leader are also introduced in this course.

* Due to potentially hazardous equipment, a maximum enrollment of 20 is recommended. Closed toe shoes are required for all students enrolled in this course.



Automotive Services (AUTO)

Automotive Service Fundamentals

Recommended Grades 9-11

at Maiden High School Only

Currently Offered



Recommended

Grades 10-12

Automotive Service II

Recommended

Grades 10-12

Concentrator Course

Automotive Service Fundamentals

Offered: M **Prerequisite: None**

Credit: 1 Unit

Recommended Grade Level: 9-11

This course introduces automotive safety, basic automotive terminology, system & component identification, knowledge and introductory skills in hand tools, shop equipment, basic servicing, and use of service information. Also careers and various job opportunities in the automotive repair industry will be discussed. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

Automotive Service I

Offered: M

Prerequisite: Automotive Service Fundamentals

Credit: 1 Unit

Recommended Grade Level: 10-12

This course develops automotive knowledge and skills in performing scheduled automotive maintenance, servicing, and basic testing of brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing handson experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

Automotive Service III

Recommended

Grades 10-12

Career Pathway Major

Closed toe shoes are required for all students enrolled in this course.

Automotive Service II

Offered: M

Prerequisite: Automotive Service I

Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 10-12

This course builds on the knowledge and skills introduced in Automotive Servicing I and develops advanced knowledge and skills in vehicle system repair and/or replacement of components in the brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

This course helps prepare students for the Automotive Service Excellence (ASE) certification in Maintenance and Light Repair

Closed toe shoes are required for all students enrolled in this

Automotive Service III

Offered: M

Prerequisite: Automotive Service II

Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 10-12

This course builds on the skills and knowledge introduced in Automotive Service I & II. Building advanced automotive skills and knowledge in vehicle servicing, testing, repair, and diagnosis of brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, while emphasizing hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

Game Art Design (GAAR)



Game Art & Design

Recommended

Grades 11-12

Concentrator Course

Game Art and Design

Offered: S

Prerequisite: Digital Design and Animation I

Credit: 1 Unit

Recommended Grade Level: 10-12

This course introduces students to techniques used in the electronic game industry. Students will focus on the principles used in game design including mathematical and virtual modeling. Emphasis is placed on areas related to art, history, ethics, plot development, storyboarding, programming, 2D Visual theory, and interactive play technologies. Students develop physical and virtual games using hands-on experience and a variety of soft-

Technology Engineering and Design (TEND)



Technology Engineering and Design

Offered: BH, M, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course focuses on the nature and core concepts of technology, engineering, and design. Through engaging activities and hands-on project-based activities, students are introduced to the following concepts: elements and principles of design, basic engineering, problem solving, and teaming. Students apply research and development skills and produce physical and virtual models.

Engineering Design

Recommended

Grades 10-12

Concentrator Course

Engineering Design Offered: BH, M, S

Prerequisite: Technology Engineering and Design

Credit: 1 Unit

Recommended Grade Level: 10-12

This course continues to apply the skills, concepts, and principles of engineering. Students explore various technological systems and engineering processes in related career fields. Topics include investigating technological system, design optimization, and problem solving. Students utilize CAD and physical and virtual modeling concepts to construct, test, collect, and report data.

Drone Technology (DRON)

Drone Technology

Fundamentals

Recommended

Grades 9-10

Drone Technology I

Recommended

Grades 10-11

Minimum 16 age requirement for enrollment

by the end of the course



Offered: B, BH, M Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-10

This course will provide students knowledge in the field of aviation related to drone technology. Students will also learn the skills needed to fly basic drones for recreational purposes.

Drone Technology I Offered: B, BH, M

Prerequisite: Drone Technology Fundamentals

Credit: 1 Unit

Recommended Grade Level: 10-11

This course provides basic information in the drone industry for students to gain an understanding of careers and skills in this field. FAA 14 CFR part 107 (The Small UAS Rule), officially known as "Part 107 Remote Pilot Certificate". The Small UAS rule adds a new part 107 to Title 14 Code of Federal Regulations (14 CFR) to allow for routine civil operation of small Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) and provide safety rules for those operations. This course will also cover the hardware of the drone along with some basic troubleshooting of those components. Additionally, an introduction to basic flight of drones to include manual flight along with flight software and mapping software will be covered.

Drone Technology II

Recommended

Grades 11-12

Concentrator Course

Drone Technology II Offered: B, BH, M

Prerequisite: Drone Technology I

Credit: 1 Unit

Recommended Grade Level: 11-12

This course is designed to provide students, who have their FAA CFR 14 Part 107 (The Small UAS Rule), officially known as "Part 107 Remote Pilot Certificate" the knowledge and skills needed to be a commercial pilot in the Drone Industry. Entrepreneurship, Fleet management, and Drone software are included in this course with the main focus being on the student choosing a specific field within the Drone Industry to complete an industry application. Industry application choices include Construction, Agriculture, Public Safety, and Cinematography.

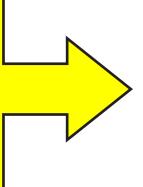


Agricultural Education Pathways

Power, Structural, and Technical Systems (PSTE)

Agricultural Mechanics I

Recommended
Grades 9-11



Agricultural Mechanics I

Offered: F

Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course develops knowledge and technical skills in the broad field of agricultural machinery, equipment, and structures. The primary purpose of this course is to prepare students to handle the day-to-day problems and repair needs they will encounter in their chosen agricultural career. Topics include agricultural mechanics safety, agricultural engineering career opportunities, hand/power tool use and selection, electrical wiring, fencing, paints and preservatives, basic metal working, basic agricultural construction skills related to plumbing, carpentry, basic welding, and leadership development. English language arts, mathematics, and science are reinforced.

*Course enrollment limited to 20 to ensure safety in laboratory settings.

Closed toe shoes are required for all students enrolled in this course.

Agricultural Mechanics II Offered: F

Prerequisite: Agricultural Mechanics I

Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 10-12

In this course, the topics of instruction emphasized are non-metallic

agricultural fabrication techniques, metal fabrication technology, safe tool and equipment use, human resource development, hot/cold metal working skills and technology, advanced welding and metal cutting skills, working with plastics, plumbing, concrete and masonry, agricultural power and advanced career exploration/decision making. English language arts, mathematics, and science are reinforced.

*Course enrollment limited to 20 to ensure safety in laboratory settings.

Closed toe shoes are required for all students enrolled in this course.

Agricultural Mechanics II

Recommended Grades 10 –12

Concentrator Course

OR

Agricultural Mechanics II

Small Engines

Recommended Grades 10-12

Concentrator Course

Agricultural Mechanics II-Small Engines

Offered: F

Prerequisite: Agricultural Mechanics I

Credit: 1 Unit (Honors Level Course)
Recommended Grade Level: 10-12

This course is provided for the upper-level agricultural mechanics student who wishes to apply the basic knowledge of small engines acquired through on-line Briggs and Stratton training modules delivered by the agricultural education teacher in a shop setting. The course is intended to provide students with experiential learning opportunities as they perform "hands-on" skills specified in the curriculum under the direct supervision of the agriculture teacher. This "learning to do" philosophy will enable students to understand curriculum content so that they may pass the Briggs and Stratton Competency Exam and receive certification from Briggs and Stratton. English, language arts, mathematics, and science are reinforced.

*Course enrollment limited to 20 to ensure safety in laboratory settings.

Closed toe shoes are required for all students enrolled in this course.



Plant Systems (PLSV)

Horticulture I Recommended Grades 9-11 Horticulture I

Offered: B, BH, F, S **Prerequisite: None**

Credit: 1 Unit

Recommended Grade Level: 9-11

This course provides instruction on the broad field of horticulture with emphasis on the scientific and technical knowledge for a career in horticulture. Topics in this course include plant growth and development, plant nutrition, media selection, basic plant identification, pest management, chemical disposal, customer relations, and career opportunities.

Closed toe shoes are required for all students enrolled in this course.

Horticulture II Offered: B, BH, F, S **Prerequisite: None**

Credit: 1 Unit

Recommended Grade Level: 9-11

This course covers instruction that expands scientific knowledge and skills to include more advanced scientific computations and communication skills needed in the horticulture industry. Topics include greenhouse plant production and management, bedding plant production, watering systems, light effects, basic landscape design, installation and maintenance, lawn and turf grass management, and personal development.

Closed toe shoes are required for all students enrolled in this course.

Horticulture II—Landscaping

Offered: B, BH Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course provides hands-on instruction and emphasizes safety skills needed by landscape technicians in the field. Students are instructed in interpreting landscape designs, identifying landscape plants, and planting/maintaining trees, shrubs, and turf. Landscape construction is emphasized in the areas of grading and drainage, irrigation, paver installation, and the use/maintenance of landscape equipment. Current topics discussions provide students an understanding of careers and the employability skills needed to enter the landscape industry Closed toe shoes are required for all students enrolled in this course.

Horticulture II

Recommended

Grades 10-12

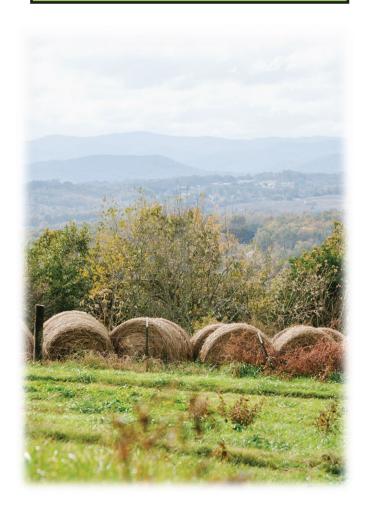
Concentrator Course

Horticulture II Landscaping

Recommended

Grades 10-12

Concentrator Course



Animal Science (ANSC)

Animal Science I Recommended Grades 9-11

Animal Science I Offered: B, BH, F Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal science career major. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities, and animal evaluation.

Closed toe shoes are required for all students enrolled in this course.

Animal Science II—Food Animal

Offered: B, BH, F

Prerequisite: Animal Science I Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 10-12

This course focuses on animal anatomy, physiology, digestion, reproduction, housing and facilities, management, and genetics of the food animal industry. Leadership development and employability skills are integral to the course and are delivered through authentic experiences.

Closed toe shoes are required for all students enrolled in this course.

Animal Science II Food Animal

Recommended

Grades 10-12

Concentrator Course

OR

Animal Science II

Companion Animal

Recommended

Grades 10-12

Concentrator Course

Animal Science II-Companion Animal

Offered: B, BH, F

Prerequisite: Animal Science I

Credit: 1 Unit

Recommended Grade Level: 10-12

This course focuses on animal welfare, safe handling practices, nutrition, digestion, breeding, grooming, care, classification, and the history of the companion animal industry. Leadership development and employability skills are integral to the course and are delivered through authentic experiences.

Closed toe shoes are required for all students enrolled in this course.

Natural Resources (AGNR)

Natural Resources I

Offered: S

Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course provides an introduction to environmental studies, which includes topics of instruction in renewable and non-renewable natural resources, history of the environment, personal development, water and air quality, waste management, land use regulations, soils, meteorology, fisheries, forestry, and wildlife habitat.

Natural Resources II

Offered: S

Prerequisite: Natural Resources I

Credit: 1 Unit

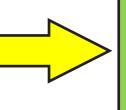
Recommended Grade Level: 10-12

This course covers instruction in best management practices in methods of environmental monitoring and conservation, air and water regulations, sampling methodologies, prescribing conservation techniques, and wildlife and forestry management.

Natural Resources I

Recommended

Grades 9-11



Natural Resources II

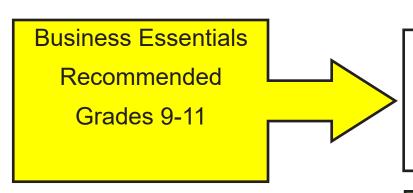
Recommended

Grades 10-12

Concentrator Course

Business, Finance & Marketing Education Pathways

General Management (GMGT)



Business Management I

Recommended

Grades 10 –12



Business Essentials Offered: F, M Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-12

This course will introduce students to realistic business and finance principles by examining fundamental economic concepts, the business environment, and primary business activities. Through workplace scenarios and problem-based learning, students will explore business ethics, customer relations, economics, financial analysis, human resources management, information management, marketing, operations, and business technology.

Business Management I

Offered: F, M

Prerequisite: Business Essentials

Credit: 1 Unit

Recommended Grade Level: 10-12

This course is designed to introduce students to core management concepts. The experience includes how managers plan, organize, staff, and direct the business's resources that enhance the effectiveness of the decision-making process. Also the experience includes students working through ethical dilemmas and problem-solving situations with customer service while academic and critical-thinking skills.

Business Management II

Recommended Grades 10-12

Concentrator Course

Business Management II

Offered: F, M

Prerequisite: Business Management I

Credit: 1 Unit

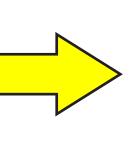
Recommended Grade Level: 10-12

This course is designed to enable students to acquire, understand, and appreciate the significance of management to business organizations. Understanding how managers control financial resources, inventory, ensure employee safety, and protect customer data enhances the effectiveness of their decision making. Students will work through ethical dilemmas, practice problem solving, and enhance their teamwork skills.



Financial Planning (FNPL)

Business Essentials Recommended Grades 9-11



Financial Planning I

Recommended

Grades 10-12



Business Essentials
Offered: BH

Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-12

This course will introduce students to realistic business and finance principles by examining fundamental economic concepts, the business environment, and primary business activities. Through workplace scenarios and problem-based learning, students will explore business ethics, customer relations, economics, financial analysis, human resources management, information management, marketing, operations, and business technology.



Financial Planning II

Recommended Grades 10-12

Concentrator Course

Financial Planning I

Offered: BH

Prerequisite: Business Essentials

Credit: 1 Unit

Recommended Grade Level: 10-12

This course is designed to cover key strategies for wealth building as students learn to evaluate businesses for investment opportunities while incorporating current headlines and trends, financial resources, and stock market simulation. Also students will develop techniques to enhance personal wealth building for a secure financial future. Current technology will be used to acquire information and to complete activities. Throughout the course, students are presented ethical dilemmas and problem-solving situations for which they must apply academic, team-building and critical-thinking skills.

Financial Planning II

Offered: BH

Prerequisite: Financial Planning I

Credit: 1 Unit

Recommended Grade Level: 10-12

Students will further develop the fundamental knowledge and skills acquired in the prerequisite course to create a business financial plan; including loans, insurance, taxes, corporate governance, and explore the various risks and returns associated with business activities. Emphasis will be placed on analyzing ethical situations in various aspects of finance in local, national and global business environments. Current technology will be used to acquire information and to complete activities. Throughout the course, students are presented ethical dilemmas and problem-solving situations for which they must apply academic, team-building and critical-thinking skills.

Entrepreneurship (ENTRE)



Entrepreneurship I Offered: B, BH, F, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

In this course students evaluate the concepts of going into business for themselves and working for or operating a small business. Emphasis is on the exploration of feasible ideas of products/services, research procedures, business financing, marketing strategies, and access to resources for starting a small business. Students develop components of a business plan and evaluate startup requirements.

Entrepreneurship II

Recommended

Grades 10-12

Concentrator Course

Entrepreneurship II Offered: B, BH, F, S

Prerequisite: Entrepreneurship I Credit: 1 Unit (Honors Level Course)

Grade Level: 10-12

In this course, students develop an understanding of pertinent decisions to be made after obtaining financing to open a small business. Students acquire in-depth understanding of business regulations, risks, management, and marketing. Students develop a small-business management handbook.



Marketing Management (MMGT)

Marketing
Recommended
Grades 9-11

Marketing Applications

Recommended Grades 10-12

Concentrator Course

Marketing Offered: B

Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-12
This course is designed to introduce students to the dynamic processes and activities in marketing. The experience includes students developing an understanding and skills in the areas of distribution, marketing-information management, market planning, pricing, product/service management, promotion, and selling. Also students develop an understanding of marketing functions applications and impact on business operations.



Marketing Applications

Offered: B

Prerequisite: Marketing

Credit: 1 Unit

Recommended Grade Level: 10-12 In this course, students will apply an understanding of marketing functions and impact of the functions on business decisions. Through problem solving and critical thinking, students will apply knowledge and skills in the areas of customer relations, economics, financial analysis, channel management, marketing-information management, marketing planning, products and services management, and selling. Relative opportunities are available for students to use technology to acquire and use marketing information.

Sports and Event Marketing (SEMK)

Sports and Event

Marketing I

Recommended

Grades 9-11

Sports and Event Marketing II

Recommended Grades 10-12

Concentrator Course

Sports and Entertainment Marketing I

Offered: B, F, M, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

In this course, students are introduced to the industry of sports, entertainment, and event marketing. Students acquire transferable knowledge and skills among related industries for planning sports, entertainment, and event marketing. Topics included are branding, licensing, and naming rights, business foundations, concessions and on-site merchandising, economic foundations. human relations, and safety and security.

Sports and Entertainment Marketing II

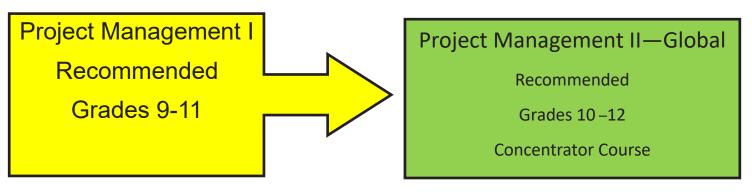
Offered: B, F, M, S

Prerequisite: Sports and Entertainment Marketing I

Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 10-12

In this course, students are introduced to the industry of sports, entertainment, and event marketing. Students acquire transferable knowledge and skills among related industries for planning sports, entertainment, and event marketing. Topics included are branding, licensing, and naming rights, business foundations, concessions and on-site merchandising, economic foundations, human relations, and safety and security.

Project Management (PMGT)



Project Management I Offered: BH, M Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course will introduce students to the principles, concepts, and software applications used in the management of projects. Through project-based learning, students will understand how to use the framework of initiating, planning, executing, monitoring and controlling, and closing a project in authentic situations. The core concepts of scope, time, cost, and integration will be examined during this

Project Management II

Offered: BH, M

Prerequisite: Project Management I

Credit: 1 Unit

Recommended Grade Level: 10-12

This project-based course focuses on the use of information technology to increase the effectiveness and efficiency of project management and integrated enterprise. Students will learn operational strategies for managing advanced technology and innovation as well as how to map the high technology operations environment to business settings.



Business Supplemental Technical Course Offerings

Catawba County Schools CTE Program offers several opportunities for students to take supplemental technical courses. A supplemental technical course does not require a prerequisite in order to take the courses. Additionally, supplemental technical courses do not belong to any specific pathway nor does the course count towards the earning of concentrator status.

Microsoft Excel

Offered: All High Schools

Prerequisite: None

Credit: 1 Unit (Honors Level Course) Recommended Grade Level: 9-12

Students in Microsoft Imagine Academies benefit from world-class Microsoft curriculum and cutting-edge software tools to tackle real-world challenges in the classroom environment. This class is designed to help you use the newest version of Microsoft Excel interface, commands, and features to present, analyze, and manipulate various types of data.



Microsoft Word and PowerPoint

Offered: B, F, M, S Prerequisite: None

Credit: 1 Unit

(Honors level credit option offered at some high schools)

Recommended Grade Level: 9-12

Students in the Microsoft Imagine Academies benefit from world-class Microsoft curriculum and software tools to tackle real-world challenges in the classroom environment. In the first part, students will learn to use the current version of Microsoft Word interface, commands, and features to create, enhance, customize, share and create complex documents, and publish them. In the second part, students will learn to use the current version of Microsoft PowerPoint interface, commands, and features to create, enhance, customize, and deliver presentations.

Business Online Course Offerings

Business Law

Offered: Online Catawba Prerequisite: None

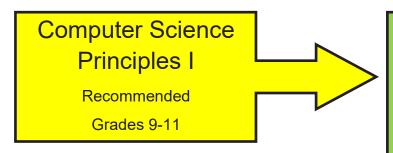
Credit: 1 Unit (Honors Level Course)

Grade Level: 11-12

Students should have a firm understanding of mathematical concepts and be prepared to meet the challenges of taking a course online. This course is designed to acquaint students with the basic legal principles common to all aspects of business and personal law. Business topics include contract law, business ownership including intellectual property, financial law, and national and international laws. Personal topics include marriage and divorce law, purchasing appropriate insurance, renting and owning real estate, employment law, and consumer protection laws.



Computer Science Principles (CSPR)



Computer Science Principles I

Offered: BH, F, S Prerequisite: None

Credit: 1 Units

Recommended Grade Level: 9-11

Computer Science Principles I is an introductory course intended to familiarize students with the general concepts and thinking practices of computing, computer science, and information science. Students will learn computing concepts through authentic visual and interactive projects using visual programming languages. Emphasis is placed on problem-solving, communication, creativity, and exploring the impacts of computing on how we think, communicate, work, and play.

Computer Science Principles II

Recommended

Grades 10-12

Concentrator Course

Computer Science Principles II

Offered: BH, F, S

Prerequisite: Computer Science Principles I

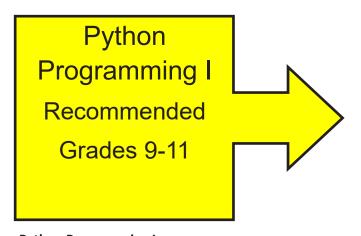
Credit: 1 Unit

Recommended Grade Level: 10-12

This is a second level introductory course in computer science builds on the foundation of Computer Science Principles I. This course offers a more in depth examination of a broad range of foundational topics such as programming, algorithms, the internet, big data, digital privacy and security, and the societal impacts of computing. Emphasis is placed on problem-solving,



Python Programming (PYPR)



Python Programming I

Offered: M

Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course is designed to introduce Python as a beginning course (not intended for experienced programmers). The course is designed for students to learn and practice coding in an online environment that requires only a modern web browser and Internet connection. No special software is required to complete this course. The course includes video content, practice labs, and coding projects.

Python Programming II

Recommended

Grades 10-12

Concentrator Course

Python Programming II

Offered: M

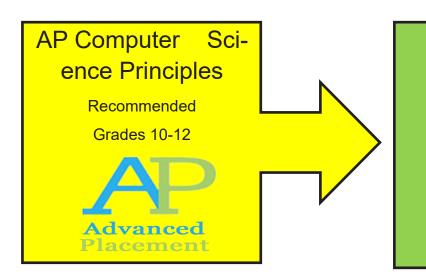
Prerequisite: Python Programming II

Credit: 1 Unit

Recommended Grade Level: 11-12

This course will prepare students for jobs and careers connected with widely understood software development, which includes not only creating the code itself as a junior developer, but also computer systems design and software testing. Students will be guided to a level of programming knowledge which allows you to design, write, debug, and run programs encoded in the Python language, and to understand the basic concepts of software development technology.

Advanced Placement (AP) Computer Science (APCS)



AP Computer Science

Recommended

Grades 11-12

Concentrator Course

AP Computer Science Principles

Offered: All High Schools, Online Catawba Prerequisite: Recommendation for successful completion of Math I

Credit: 2 Units

Recommended Grade Level: 10-12

The AP Computer Science Principles course is designed to be equivalent to a first semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as computational tools to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaborative to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world.

AP Computer Science
Offered: Online Catawba

Prerequisite: Math I and AP Computer Science

PrinciplesCredit: 2 Units

Recommended Grade Level: 11-12

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

Students are expected to take the AP exam for this course.

Students are expected to take the AP exam for this course.

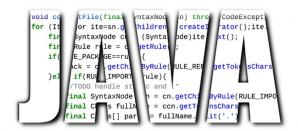
Comparing AP Computer Science Courses

AP Computer Science Principles

The AP Computer Science Principles course complements AP Computer Science A and focuses on the broader aspects of computing. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems including the internet work, explore the potential impacts of these innovations, and contribute to a computing culture that is collaborative and ethical.

AP Computer Science

The AP Computer Science A course and exam focus on computing skills related to programming in Java. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures.



Family and Consumer Science Education Pathways

Apparel and Textile Production (ATPR)

Apparel and
Textile
Production I
Recommended
Grades 9-11

Apparel and Textile Production I Offered: B, BH, M, S

Credit: 1 Unit

Prerequisite: None

Recommended Grade Level: 9-11

In this course students are introduced to the apparel and textile industry in the area of design, textiles and apparel engineering. Emphasis is placed on students applying these design and engineering skills to create and produce apparel products.

*For safety reasons, enrollment is not to exceed 20 in this course.

Apparel and Textile Production II

Recommended

Grades 10-12

Concentrator Course

Apparel and Textile Production II Offered: B, BH, M, S

Prerequisite: Apparel and Textile Production I

Credit: 1 Unit

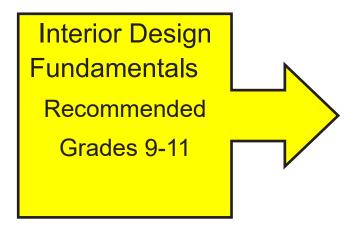
Recommended Grade Level: 10-12

Students in this course will gain a deeper understanding of design principles, engineering, fabrication and global needs of an ever-changing apparel and textile industry. The course provides a major focus on textile design, textile science, product construction, global manufacturing, and the apparel/textile market while incorporating and scaffolding prerequisite concepts. Emphasis is placed on application of design and engineering skills used to create, produce, and prepare a product for market. Students will also gain the entrepreneurial skills, necessary for successful marketing and distribution of an apparel product.

*For safety reasons, enrollment is not to exceed 20 in this course.



Family and Consumer Science Education Pathways Interior Design (INDE)



Interior Design Studio

Recommended

Grades 10-12

Concentrator Course

Interior Design Fundamentals

Offered: B, F, M, S Prerequisite: None

Credit: 1 Unit Grade Level: 9-12

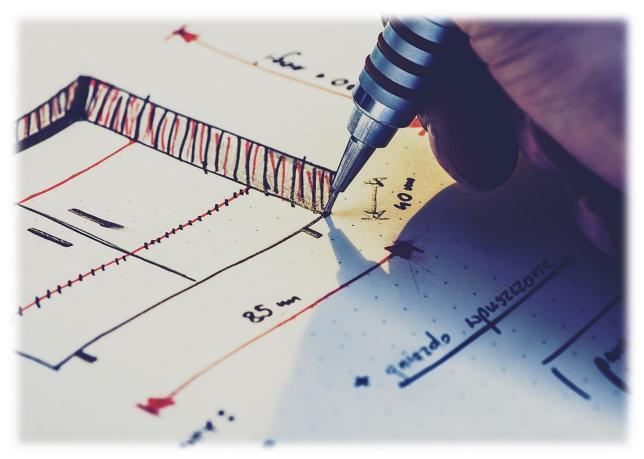
This course engages students in exploring various interior design professions, while building the content knowledge and technical skills necessary to provide a foundational knowledge of the design industry. Emphasis is placed on the interior design process; human, environmental and behavioral factors; color theory, elements and principles of design; hand sketching/digital design techniques, space planning, selection of products and materials for residential interiors; client relationship building and design communication techniques.

Interior Design Studio Offered: B, F, M, S

Prerequisite: Interior Design Fundamentals

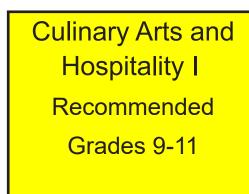
Credit: 1 Unit Grade Level: 10-12

This course prepares students for entry-level and technical work opportunities in the residential and non-residential interior design fields. Students deepen their understanding of design fundamentals and theory by designing interior plans to meet living space needs of specific individuals or families. Topics include application of design theory to interior plans and production, selection of materials, and examination of business procedures.



Family and Consumer Science Education Pathways

Culinary Arts Applications (CULA)



Culinary Arts and Hospitality II Applications

Recommended

Grades 10-12

Culinary Arts and Hospitality I

Offered: BH, M, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course is designed to introduce students to the hospitality and food service industry by learning about components of professional practice and building basic knowledge and skills in food preparation, garde manger, baking, and food service operations. The introduction includes students learning food safety, breakfast cookery, salads and sandwiches, quick breads and cookies, and dining room service.

A culinary jacket is required for all students enrolled in this course.

Culinary Arts and Hospitality II Applications

Offered: BH, M, S

Prerequisite: Culinary Arts and Hospitality I

Credit: 1 Units

Recommended Grade Level: 10-12

This course is designed for students to demonstrate their knowledge and skills in basic food preparation, garde manger, baking and food service operations by planning and executing the program's school-based enterprise. The experience includes students preparing and selling breakfast items, salads and sandwiches, and quick breads and cookies while applying safety, sanitation, and guest service skills.

A culinary jacket is required for all students enrolled in this course.

Culinary Arts and Hospitality III

Offered: BH, M, S

Prerequisite: Culinary Arts and Hospitality II

Credit: 1 Units

Recommended Grade Level: 11-12

The course is designed for students to further develop their knowledge and skills through learning about advanced food preparation, garde manger, baking and pastry, and food service operations. The experience includes students learning cooking techniques, food preservation, yeast breads and pastries preparation, human relations management, menu planning, and food service purchasing and receiving.

A culinary jacket is required for all students enrolled in this course.

Culinary Arts and Hospitality III

Concentrator Course

Recommended Grades 10-12

Culinary Arts and Hospitality IV

Recommended

Grades 11-12

Culinary Arts and Hospitality IV

Offered: M

Prerequisite: Culinary Arts and Hospitality III

Credit: 1 Units

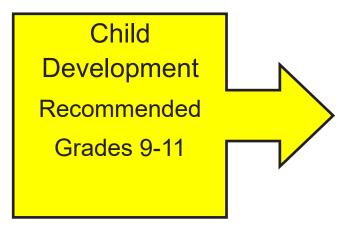
Recommended Grade Level: 11-12

This course is designed for students to demonstrate their knowledge and skills in advanced food preparation, garde manger, baking and pastry, and foodservice operations by planning and executing the program's school-based enterprise. The experience includes students preparing and selling a variety of meat, poultry, and seafood entrees served with accompaniments and sauces and yeast breads, desserts, and pastries, while applying human relations management, menu planning, and food service purchasing and receiving.

A culinary jacket is required for all students enrolled in this course.

Family and Consumer Science Education Pathways

Early Childhood Development and Services (EACH)



Child Development Offered: M, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course introduces students to basic applications of child development theory with children from birth through age five. Emphasis is on family as a basic unit of society, prenatal development, and understanding the cognitive, social, emotional, and physical development of children.

Early Childhood Education I

Offered: M

Prerequisite: Child Development Students must be 15 by September 1

Credit: 2 Units Grade Level: 10-12

This two-credit course prepares students to work with children in early education and child care settings. Areas of study include personal growth and the field of child development, history and theories, early childhood programs, learning activities, inclusion in the classroom and guiding behavior. An internship makes up 50 percent of instructional time.

*For safety reasons and number of interns placed, enrollment should not exceed 20 in this course.

A background check and TB test are required for this course. Students are required to provide their own transportation to and from child care centers.

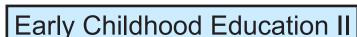


Early Childhood Education I

Recommended

Grades 10-12

Concentrator Course



Recommended

Grades 10-12

Career Major Course

Early Childhood Education II

Offered: M

Prerequisite: Early Childhood Education I

Students must be 16 by October 1
Credit: 2 Units (Honors Level Course)

Grade Level: 11-12

This two-credit course provides advanced experiences in working with children from infancy to age 12 in early education and child care settings. Areas of study include program planning and management, developmentally appropriate practice, procedures and strategies for working with special groups of children, career development and professionalism. An internship makes up 50 percent of instructional time. Due to student participation internships at early childhood centers that meet NC Child Care General Statute 110-91 Section 8, students must be 16 years of age prior to October 1 to enroll in this course. http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter 110/GS 110-91.html

*For safety reasons and number of interns placed, enrollment should not exceed 20 in this course.

A background check and TB test are required for this course. Students are required to provide their own transportation to and from child care centers.



Family and Consumer Science Education Pathways Food and Nutrition (FONU)

Food and Nutrition I

Recommended

Grades 9-11

Food and Nutrition II

Recommended

Grades 10-12

Concentrator Course

Food and Nutrition I Offered: B, F, S Prerequisite: None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course examines the nutritional needs of the individual. Students learn fundamentals of food production, kitchen and meal management, food groups and their preparation, and time and resource management.

Food and Nutrition II Offered: B, F, S

Prerequisite: Food and Nutrition I

Credit: 1 Unit Grade Level: 10-12

In this course, students experience the intersection of nutrition science and food preparation, while building skills for an expanding range of career opportunities. Emphasis is placed on health and social responsibility while improving the way people eat. Students learn how to manage food safety; plan and prepare meals for a variety of consumers and clients; and explore the food system and global cuisines.

*For safety and sanitation reasons, enrollment should not exceed 20 in this course.



Courses in Advanced Studies

Catawba County Schools CTE offers all students opportunities to take courses in advanced studies. An advanced studies course is a career major level course designed to prepare students for success in transitioning to post-secondary education or the workforce. Students requesting an advanced studies course must first gain permission from the supervising teacher and speak with their school's career development coordinator and counselor for registration purposes.

CTE Advanced Studies
Offered: All high schools

Prerequisite: Two technical credits in one career cluster

Credit: 1 Unit Grade Level: 11-12

This culminating course is for juniors and seniors who have earned two technical credits, one of which is a completer course, in one Career Cluster. The Advanced Studies course must augment the content of the completer course and prepare students for success in transitioning to postsecondary education and future careers. Students work under the guidance of a teacher with expertise in the content of the completer course in collaboration with community members, business representatives, and other school-based personnel. The four parts of the course include writing a research paper, producing a product, developing a portfolio, and delivering a presentation. Students demonstrate their abilities to use 21st century skills. DECA (an association for Marketing Education students), Future Business Leaders of America (FBLA), FFA, Family, Career and Community Leaders of America (FCCLA), Health Occupations Students of America (HOSA), SkillsUSA, and Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.



DON'T WAIT FOR OPPORTUNITY.

CREATE IT.

CATAWBA VALLEY COMMUNITY COLLEGE (CVCC) Career Technical Education Pathways Offered at High Schools

Catawba County Schools, in partnership with Catawba Valley Community College, offers Career and College Promise (CCP) Career and Technical Education (CTE) Pathways for students. Students eligible for the CTE CCP Pathways can earn both high school and college credit towards certification in a specific area. To be eligible for CTE CCP Pathway enrollment, students must meet the following criteria:

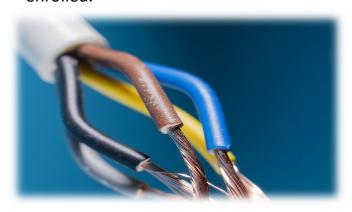
- Students must be juniors or seniors in a North Carolina public, private or home school setting.
- CTE pathway students will have the option to qualify for the program with a cumulative unweighted high school GPA of 2.8 (or higher) **or** approved assessment scores.
- Principals (or their designee) may submit a waiver to allow a student entry into a CTE pathway. If a waiver is submitted, the principal (or their designee) will need to provide rationale for why the GPA requirement was waived. CTE pathways that include UGETC (Universal General Education Transfer Component) courses will not be eligible for the principal waiver/designee waiver for entry into the CCP program.

CCP CTE Pathways are currently offered in the following areas:

- WELDING TECHNOLOGY CERTIFICATE
- WELDING TECHNOLOGY FABRICATION CERTIFICATE
- AUTOMOTIVE CERTIFICATE
- ELECTRICAL SYSTEMS TECHNOLOGY
- FIRE PROTECTION TECHNOLOGY
- EARLY CHILDHOOD EDUCATION
- BUSINESS SCHOLARS

Qualified students interested in the CCP CTE Pathways should seek assistance from school counselors on registering for these courses.

Students participating in CCP courses are charged a fee of \$40 for each semester enrolled.











CVCC WELDING TECHNOLOGY CERTIFICATE PATHWAY

Classes Offered at Bandys, Bunker Hill, and St. Stephens High School

Total Credit Hours: 18

Courses	College Credit Hours	
WLD-110 - Cutting Processes	2	
WLD-115AB - SMAW (Stick) P	late-AB 3	
WLD-115BB - SMAW (Stick) P	late-BB 2	
WLD-121 - GMAW (MIG) FCA	W/Plate 4	
WLD-131 – GTAW (TIG) Plate	4	
WLD-141 – Symbols & Specific	cations 3	



WLD-110 Cutting Processes

College Credit Hours: 2

This Course introduces oxy-fuel and plasma-arc cutting systems. Topics includes 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 thicknesses.

Prerequisites: None. Corequisites: None.

WLD-115AB SMAW (Stick) Plate-AB

College Credits Hours: 3

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

Prerequisites: None.

Corequisites: WLD 110 or WLD 112

WLD-115BB SMAW (Stick) Plate-BB

College Credits Hours: 2

This course is a continuation of WLD-115AB, the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in the vertical and overhead positions with SMAW electrodes. Upon competition, students should be able to perform groove and fillet welds on carbon steel with prescribed electrodes

Prerequisites: None.

Corequisites: WLD 110 or WLD 112, WLD 115AB

WLD-121 GMAW (MIG) FCAW/Plate

College Credit Hours: 4

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, vertical, and overhead positions.

Prerequisites: None.

Corequisites: WLD 110 or WLD 112.

WLD-131 GTAW (TIG) Plate

College Credit Hours: 4

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 metals.

Prerequisites: None.

Corequisites: WLD 110 or WLD 112.

WLD-141 Symbols & Specifications

College Credit Hours: 3

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

Prerequisites: None. Corequisites: None.



CVCC WELDING TECHNOLOGY FABRICATION CERTIFICATE PATHWAY Classes Offered at Bandys High School and St. Stephens High School

Total Credit Hours: 16

Courses	College Credit Hour
WLD-110 - Cutting Processes	2
WLD-121 - GMAW (MIG) FCA	AW/Plate 4
WLD-141 - Symbols & Specif	ications 3
WLD-151 – Fabrication I	4
WLD-251 – Fabrication II	3



WLD-110 Cutting Processes

College Credit Hours: 2

This Course introduces oxy-fuel and plasma-arc cutting systems. Topics includes 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 thicknesses.

Prerequisites: None. Corequisites: None.

WLD-121 GMAW (MIG) FCAW/Plate

College Credit Hours: 4

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, vertical, and overhead positions.

Prerequisites: None.

Corequisites: WLD 110 or WLD 112.

WLD-141 Symbols & Specifications

College Credit Hours: 3

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

Prerequisites: None. Corequisites: None.

WLD 151 Fabrication I

College Credit Hours: 4

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.

Prerequisites: None.

Corequisites: WLD-110, WLD 121

WLD 251 Fabrication II

College Credit Hours: 3

This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

Prerequisites: WLD 151 Corequisites: WLD-141



CVCC AUTOMOTIVE CERTIFICATE PATHWAY Classes Offered at St. Stephens High School

Total Credit Hours: 18

Courses	College Credit Hours
TRN 110: Intro to Transport	Tech 2
TRN 120: Basic Transp Electr	icity 5
AUT 151: Brake Systems	3
AUT 151A: Brake Systems La	b 1
AUT 141: Suspension & Stee	ring Sys 3
AUT 141A: Suspension & Ste	ering Lab 1
AUT 212: Auto Shop Manage	ement 3



TRN 110: Intro to Transport Tech

Credit Hours: 2

This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

TRN 120: Basic Transp Electricity

Credit Hours: 5

This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic trouble-shooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

AUT 151: Brake Systems

Credit Hours: 3

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 151A: Brake Systems Lab

Credit Hours: 1

This course is an optional lab to be used as an alternative to coop placement in meeting the ASE Education Foundation standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 141: Suspension & Steering Sys

Credit Hours: 3

This course covers principles of operation, types, and diagnosis/ repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

AUT 141A: Suspension & Steering Lab

Credit Hours: 1

This course is an optional lab to be used as an alternative to coop placement in meeting the ASE Education Foundation standards for total hours. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

AUT 212: Auto Shop Management

Credit Hours: 3

This course covers the principles of management essential to decision-making, communication, authority, and leadership. Topics include shop supervision, shop organization, customer relations, cost effectiveness and work place ethics. Upon completion, students should be able to describe basic automotive shop operation from a management standpoint.



CVCC ELECTRICAL SYSTEMS TECHNOLOGY PATHWAY Classes Offered at Bunker Hill, Bandys and St. Stephens High School

Total Credit Hours: 13

Courses

ELC 113—Residential Wiring

ISC 121—Envir Health & Safety ELC 114—Commercial Wiring

ELC 118—National Electrical Code

College Credit Hours

4 (Fall Semester)

3 (Fall Semester) 4 (Spring Semester)

2 (Spring Semester)

Maximum Enrollment: 16

CVCC reserves the right to adjust schedules based on student enrollment numbers and faculty

resources.

ELC 113 - Residential Wiring

Credit Hours: 4

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.

ISC 121 - Envir Health & Safety

Credit Hours: 3

This course covers workplace environmental, health, and safety concepts. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental health and safety along with OSHA compliance.

ELC 114 - Commercial Wiring

Credit Hours: 4

This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.

ELC 118- National Electrical Code

Credit Hours: 2

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.





CVCC FIRE PROTECTION TECHNOLOGY PATHWAY

Classes Offered at Maiden and Fred T. Foard

Hybrid Schedule (Two Days Face-to-Face/Two Days Virtual)

Total Credit Hours: 12

Courses College Credit Hours

FIP 120: Intro to Fire Protection

FIP 124: Fire Prevention & Public Ed

FIP 132: Building Construction

FIP 152: Fire Protection Law

3 (Fall Semester)

3 (Spring Semester)

3 (Spring Semester)

Maximum Enrollment: TBD

CVCC reserves the right to adjust schedules based on student enrollment numbers and faculty

resources.

FIP 120: Intro to Fire Protection

Credit Hours: 3

This course provides an overview of the history, development, methods, systems, and regulations that apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP 124: Fire Prevention & Public Ed

Credit Hours: 3

This course introduces fire prevention concepts as they relate to community and industrial operations referenced in NFPA standard 101. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.

FIP 132: Building Construction

Credit Hours: 3

This course covers the principles and practices referenced in NFPA standard 220 related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction as related to fire conditions.

FIP 152: Fire Protection Law

Credit Hours: 3

This course covers fire protection law as referenced in NFPA standard 1. Topics include torts, legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.



CVCC INFANT-TODDLER EARLY CHILDHOOD EDUCATION PATHWAY ONLINE ONLY

Classes Offered—All High Schools

Total Credit Hours: 12

Courses

EDU 119 - Intro to Early Child Educ

EDU 144 - Child Development I

EDU 131 - Child, Family, and Community

EDU 153 - Health, Safety and Nutrition

EDU 234 - Infants, Toddlers, and Twos

College Credit Hours

4 (Fall & Spring Semester)

3 (Fall Semester)

3 (Spring Semester)

3 (Spring Semester)

3 (Fall Semester) *

Maximum Enrollment: TBD

CVCC reserves the right to adjust schedules based on student enrollment numbers and faculty

resources.

EDU 119 - Intro to Early Child Educ

Credit Hours: 4

This course introduces the foundations of early childhood education, the diverse educational settings for young children, professional-ism and planning intentional developmentally appropriate experiences for each child. Topics include theoretical foundations, national early learning standards, NC Foundations for Early Learning and Development, state regulations, program types, career options, professionalism, ethical conduct, quality inclusive environments, and curriculum responsive to the needs of each child/family. Upon completion, students should be able to design a career/professional development plan, appropriate environments, schedules, and activity plans.

EDU 144 - Child Development I

Credit Hours: 3

This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.

EDU 131 - Child, Family, and Community

Credit Hours: 3

This course covers the development of partnerships between culturally, linguistically and ability diverse families, children, schools and communities through the use of evidence-based strategies. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and community agencies/resources reflective of the NAEYC Code of Ethical Conduct. Upon completion, students should be able to identify appropriate relationship building strategies between diverse families, children, schools, and communities and demonstrate a variety of communication skills including appropriate use of technology to support every child.

EDU 153 - Health, Safety and Nutrition

Credit Hours: 3

This course covers promoting and maintaining the health and well-being of every child. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, health benefits of active play, recognition and reporting of abuse/neglect, and state regulations. Upon completion, students should be able to apply knowledge of NC Foundations for Early Learning and Development for health, safety, nutritional needs and safe learning environments.

EDU 234 - Infants, Toddlers, and Twos— * Course offered at CVCC after Graduation from HS for Program Completion

Credit Hours: 3 (Pre-requisite EDU 119)

This course covers the development of high-quality, individualized, responsive/engaging relationships and experiences for infants, toddlers, and twos. Emphasis is placed on typical and atypical child development, positive early learning experiences, supporting and engaging diverse families, providing safe, warm and nurturing interactions, and the application of the NC Foundations for Early Learning and Development. Upon completion, students should be able to demonstrate responsive planning, respectful relationships and exposure to a variety of developmentally appropriate experiences/materials that support a foundation for healthy development and growth of culturally, linguistically and ability diverse children birth to 36 months.

CVCC BUSINESS SCHOLARS COHORT Classes Offered—FRED T. FOARD HIGH SCHOOL ONLY

Total Credit Hours: 12

Courses	College Credit Hours	Maximum Enrollment: TBD
BUS 110 - Introduction to Business	3 (Fall Semester)	
BUS 115 - Business Law I	3 (Fall Semester)	CVCC reserves the right to adjust
BUS 137 - Principles of Management	3 (Spring Semester)	schedules based on student en-
ACC 120 - Prin of Financial Accounting	4 (Spring Semester)	rollment numbers and faculty
	. (550 556566.)	resources.

BUS 110 - Introduction to Business

Credit Hours: 3

This course provides a survey of the business world. 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.

BUS 115 - Business Law I

Credit Hours: 3

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.

ACC 120 - Prin of Financial Accounting

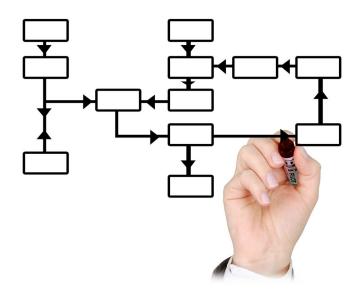
Credit Hours: 4

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.

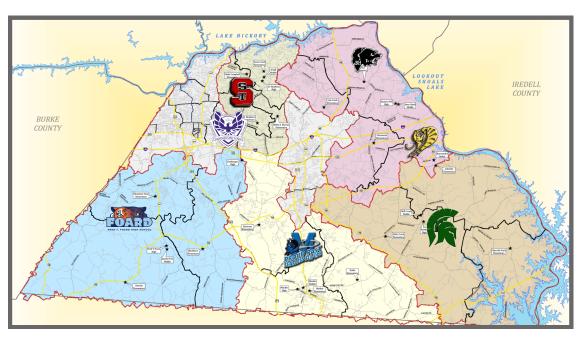
BUS 137 - Principles of Management

Credit Hours: 3

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.



High School Directory



Bandys High School

5040 East Bandys Road Catawba, NC 28609 (828) 241-1471 FAX (828) 241-1476 **Dr. Chad Maynor, Principal** Leslie McIntosh, AP Brandon Harbinson, AP Karen McClure, Lead Counselor

Bunker Hill High School

4675 Oxford School Road Claremont, NC 28610 (828) 241-3355 FAX (828) 241-9401 **Dr. Preston Clarke, Principal** Holly Holleran, AP Shannon Hollar, AP Gigi Moore, Lead Counselor

Catawba Rosenwald Education Center

403 6th Avenue SW
Catawba, NC 28609
(828) 241-2734
FAX (828) 241-4999
Tim Adams, Principal
Erin Gates, AP
Nannette Moss, Lead Counselor

Challenger Early College High School

CVCC Campus 2550 Hwy 70 SE Hickory, NC 28602 (828) 485-2980 FAX (828) 485-2981 **Dr. Rene Spry, Principal** Brigette DeArman, AP Amy Sigmon, Lead Counselor

Fred T. Foard High School

3407 Plateau Road Newton, NC 28658 (704) 462-1496 FAX (704) 462-1988 **Samy Shreitah, Principal** Deborah Pitts, AP Lindsey Farnsworth, AP Brooke Ward, Lead Counselor

Maiden High School

600 W Main Street
Maiden, NC 28650
(828) 428-8197
FAX (828) 428-8341
Brian Hefner, Principal
Zindy Wilfong, AP
Caine Houser, AP
Judy Craft, Lead Counselor

St. Stephens High School

3205 34th Street Drive NE
Hickory, NC 28601
(828) 256-9841
FAX (828) 256-7159 **Kyle Stocks, Principal**Neil Everett, AP
Jill Chiles, AP
Amy Rucker, AP
Amber Moulton, Lead Counselor

All school websites can be located at: www.catawbaschools.net

