

**CTE**

**Building Bridges  
To Jobs  
&  
Prosperity**

**Catawba County Schools**

# Career and Technical Education

2021-2022

**Course Guide**



FRED T. FOARD HIGH SCHOOL



CHALLENGER EARLY COLLEGE

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## Purpose of this Guide

The purpose of the Catawba County Schools Career and Technical Education (CTE) Program is to prepare students for a wide range of high-wage, high-skill, high-demand careers. CTE programs are premiere college- and career-readiness programs that provide both technical training and hands-on learning experiences for students to practice and develop cross-cutting skills for post-secondary education preparation and the workforce. CTE programs are designed to contribute to the broad educational achievement of students, including essential skills, as well as their ability to work independently, as part of a team, think creatively, solve problems, and utilize technology in the thinking and problem-solving process.

This course guide has been prepared to help both parents and students with 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. Parents are encouraged to review the courses and pathways and assist students in choices that are of interest as well as beneficial for future career pathways and opportunities.



Learning that  
works for America

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It is the policy of Catawba County Schools System not to discriminate against race, color, religion, sex, marital status, pregnancy, parenthood, age, or handicapping conditions in its education activities or employment practices.



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**2021-2022**

## CTE Course Guide

Catawba County Schools System does not discriminate against race, color, religion, sex, marital status, pregnancy, parenthood, or handicapping conditions in its education activities or employment practices.

# Superintendent's Message

February 2, 2021

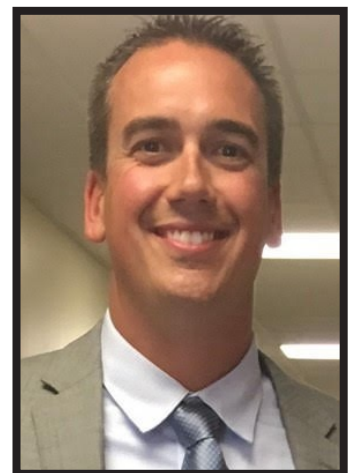
With the important role that CTE plays in helping to prepare students to be successful after high school, we have prepared this guide to include CTE course options for students as well as information that focuses on the multitude of job opportunities across the different career pathways. As the registration process begins this spring parents and students are encouraged to use this guide to assist in choosing courses that complete North Carolina graduation requirements and identify future career goals. At each school, Career Development Coordinators (CDCs), counselors, administrators, and teachers are available to assist in course selection decisions.

Catawba County Schools CTE Program partners with Catawba Valley Community College, Lenoir-Rhyne University, and local businesses to offer CTE college pathway courses that lead to numerous post-secondary industry credentials, associate degrees, internships, and apprenticeship opportunities. The opportunities that students have with regard to these programs are excellent in providing students opportunities to take college courses while attending high school and serve to assist in saving parents and students on college tuition.

Michelangelo once said, "The greater danger for most of us lies not in setting our aim too high and falling short, but in setting our aim too low and achieving our mark." Competition for college, university, and career access is on a global level. Challenge yourself by accessing rigorous academic course offerings and take advantage of leadership opportunities. The time is here for you to create the future you hope for and to ultimately make a significant contribution to America's workforce.

Sincerely,

Matthew W. Stover, Ed.D.  
Superintendent







## Frequently Asked Questions

### What is Career-Technical Education?

Today's cutting-edge, rigorous and relevant career and technical education (CTE) prepares youth and adults for a wide range of high-wage, high-skill, high-demand careers.

### Why all students should take CTE courses?

Students who take CTE courses in high school have a tremendous advantage over other students.

1. Students involved in CTE have one of the highest graduation rates over other students.
2. Students involved in CTE courses develop and build employability skills.
3. Students involved in CTE courses have a high achievement rate in other courses and develop problem-solving skills.
4. Students involved in CTE courses gain extensive knowledge in job-specific skills.

### What is a career pathway?

Career Pathways are groupings of skills, knowledge, and interests in job areas that have steps that progress to the next level. In this guide, our career pathways are structured as different levels of courses that are designed to create opportunities for advancement in skills and education level. Occupations and areas of work are grouped into pathways based on the set of common knowledge and skills required for career success.

### What is a concentrator course and why are they important?

A Concentrator Course is defined as a second or third-level course within a pathway that builds upon skills acquired in a prerequisite course. Students are strongly encouraged to become a concentrator in multiple pathways due to the crossover of skills in a variety of career areas.

### What are the benefits of participating in work-based learning opportunities such as internships and apprenticeships?

Work-based learning such as internships and apprenticeships are excellent opportunities for students to get real-world experiences in particular jobs or career fields. All students are encouraged to participate in multiple internships. These opportunities are offered during the school year and throughout each summer.

- Students involved in CTE courses have a higher graduation rate than non-CTE Students
- 95% of students involved in CTE courses continue on into post-secondary education, the workforce, or the military
- CTE gives students an opportunity to explore post-secondary educational areas and help to save parents on the high cost of college tuition, especially through the NC CCP Program



# Work-Based Learning Opportunities for All Catawba County Students



Catawba County Schools offers students a variety of work-based learning experiences that begin in middle school with job shadowing and continue at every level of high school, including internships, pre-apprenticeships, and full apprenticeships that involve a salary and full-tuition benefits.

All students are encouraged to take advantage of these opportunities. In addition, students who complete a work-based learning experience are eligible to receive high school graduation credit and potentially college credit.

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

SOURCE: TALENT DEVELOPMENT 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 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 High School:

- Bandys High School—Shelly Isenhour-Essary
- Bunker Hill High School—Angela Raby
- Fred T. Foard High School—Daniel Cadle
- Maiden High School—Adam Windham
- St. Stephens High School—Jeanne Davis


# Understanding Pathways In Your Guide

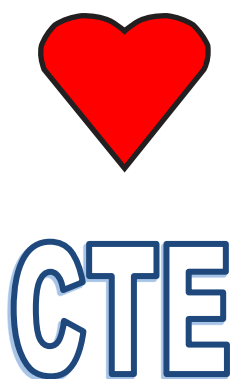
The course sections of this guide are organized in pathways under each program area within CTE. To better communicate and help understand the flow of courses that students must take, each program area contains a map of courses with directional arrows in order of sequence for registration purposes.

Courses in  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 

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  serve as Career Pathway Major Courses. These courses provide students with aligned, 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).





# Agricultural Education Pathways

## Power, Structural, and Technical Systems (PSTE)

### Agricultural Mechanics I

Recommended  
Grades 9-11

### Agricultural Mechanics II

Recommended Grades 10 –12

Concentrator Course

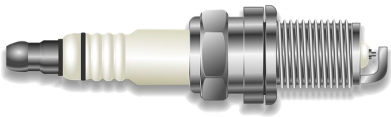
OR

### Agricultural Mechanics II

#### Small Engines

Recommended Grades 10 –12

Concentrator Course



#### 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.



#### 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

Recommended  
Grades 10-12  
Concentrator 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.

## Supplemental Technical Course(s) in Agricultural Education

### Agriscience Applications

**Offered:** B

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-12

This course focuses on integrating biological/physical sciences with technology as related to the environment, natural resources, food production, science, and agribusiness. Topics of instruction include agricultural awareness and literacy, employability skills and introduction to all aspects of the total agricultural industry.

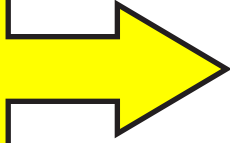
Closed toe shoes are required for all students enrolled in this course.

got to be **NC** AGRICULTURE  
Goodness Grows



# Animal Science (ANSC)

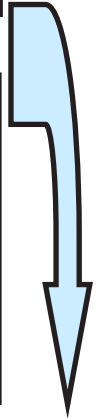
**Animal Science I**  
**Recommended**  
**Grades 9-11**



**Animal Science II**  
**Recommended**  
**Grades 10-12**  
**Concentrator Course**

OR

**Animal Science II**  
**Small Animals**  
**Recommended**  
**Grades 10-12**  
**Concentrator Course**



## **Animal Science I** **Offered: B, BH, S** **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**

**Offered: B, BH, S**

**Prerequisite: Animal Science I**

Credit: 1 Unit (**Honors Level Course**)

Recommended Grade Level: 10-12

This course includes more advanced scientific principles and communication skills and includes animal waste management, animal science economics, decision-making, global concerns in the industry, genetics, and breeding.

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



## **Veterinary Assisting**

**Offered: BH**

**Prerequisite: Animal Science II or Animal Science II (Small Animals)**

Credit: 1 Unit (**Honors Level Course**)

Grade Levels: Designed for Students in Grades 11-12 with an interest in animal medicine

This course provides instruction for students desiring a career in animal medicine. Topics include proper veterinary practice management and client relations, pharmacy and laboratory procedure, advanced animal care, and surgical/radiological procedures. Applied mathematics, science and writing are integrated throughout the curriculum. Advanced FFA leadership will be infused throughout the curriculum to develop the student's ability to work with the public. All aspects of this course will feature hands-on skill sets designed to enhance experiential learning. English language arts, mathematics, and science are reinforced. Work-based learning strategies appropriate for this course are cooperative education, internship, mentorship, service learning job shadowing and supervised agricultural experience. FFA competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skill through authentic experiences.

Students who wish to take the Veterinary Assisting Exam developed by Texas Veterinary Medical Association to be a Certified Veterinary Assistant (CVA) Level 1 should complete an additional 500 hours of supervised agricultural experience (SAE) during their three animal science courses. Two hundred SAE hours focus on the care and management of animals; will be substantiated by records, and conducted under the direct supervision of the agricultural teacher. Hours may be earned any time during the year including summer months. An additional 300 hours of supervised agricultural experience (worked based learning) will be conducted as an internship program in animal medicine under the supervision of a licensed veterinarian or certified veterinary technician who will attest that participating students have mastered a standard set of skills used in animal medicine as identified by the cooperating teacher. Hours may be earned any time during the year including summer months. Identified by the cooperating teacher. Hours may be earned any time during the year including summer months.

## **Animal Science II-Small Animal**

**Offered: B, BH**

**Prerequisite: Animal Science I**

Credit: 1 Unit

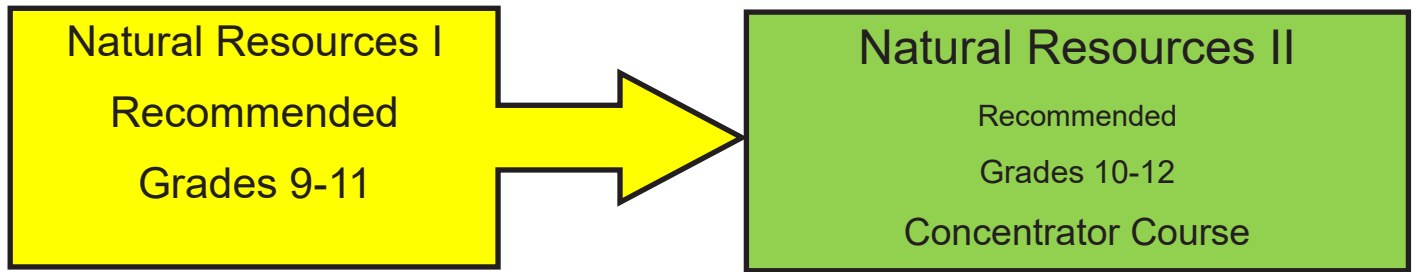
Recommended Grade Level: 10-12

This course provides instruction on animal science topics related to small animals that are served by a veterinarian. Content related to the breeding, grooming, care and marketing of animals that fit into this category are taught in this course.

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



# Natural Resources (NARE)



## Natural Resources I

**Offered:** BH

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Levels: 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:** BH

**Prerequisite:** Natural Resources I

Credit: 1 Unit

Recommended Grade Levels: 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.

# Catawba County Agricultural Facts

North Carolina has grown to be a national leader in agriculture. Likewise, agriculture in Catawba County also plays a major part in the economy of the county and region as a whole. The following key facts provide information on the overall impact that agriculture from a cultural, geographic, and economic perspective:

Number of Farms	638
Total Acreage in Farms	63,530
Average Farm Size in Acres	100
Total Market Value of Agricultural Products Sold (Catawba)	\$77,281,000

*"Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals & happiness."*

Thomas Jefferson





## CAREER OPPORTUNITIES IN AGRICULTURE

Agriculture is a multifaceted and cutting-edge industry that has a wide range of careers that touch every sector of the local and global economy. The following provides a small window into the vast array of opportunities that exist for students interested in agriculture and related fields.

- Farm Management
- Entrepreneurship
- Import/Export of Agricultural Products
- Sales/Marketing
- Equipment Sales
- Chemical Distribution
- Family Farm Operations
- Production Managers
- Landscaping
- Pest Management
- Poultry Management
- Livestock Management
- Feed and Equipment Sales
- Research
- Turf Management
- Lawn Care
- Athletic Field Maintenance
- Sod Production
- Food Science
- Bio-Chemistry
- Land Management
- Cooperative Extension Services
- Equipment Operators
- Educator



- Forestry Services
- Agriculture Mechanic
- Logistics
- Transportation
- Breeder
- Agronomist
- Inspector
- Wildlife Officer
- Truck Driver
- Shipping and Receiving
- Aquiculture
- Fishing Industry
- Banking and Finance
- Disease Specialist
- Project Manager
- Food Safety
- Insurance
- Genetics
- Pet Care
- Veterinary Services
- Waste Management
- Environmental Science
- Organic Specialists
- Fire Prevention
- Ranger
- Entomology
- Disaster Recovery

### The U.S. **DEPENDS** on Farming



Farming and related industries employ  
**21.6**  
million people  
making up 11% of  
total U.S. employment

## General Management (GMGT)





# Financial Planning (FNPL)

Principles of  
Business & Finance  
Recommended  
Grades 9-11

Financial Planning I  
Recommended  
Grades 10 –12

Financial Planning II  
Recommended Grades 10-12  
Concentrator Course

## Principles of Business and Finance

**Offered:** All high schools

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-12

This course introduces students to topics related to business, finance, management, and marketing to cover business in the global economy, functions of business organization and management, marketing basics, and significance of business financial and risk management.



**"Earning a lot  
of money is  
not the key to  
prosperity.  
How you  
handle it is."**

— Dave Ramsey

## Financial Planning I

**Offered:** B, BH

**Prerequisite:** Principles of Business and Finance

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:** B, BH

**Prerequisite:** Financial Planning I

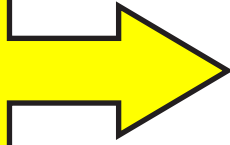
Credit: 1 Unit

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  
Recommended  
Grades 9-11



Entrepreneurship II

Recommended  
Grades 10-12  
Concentrator Course

### Entrepreneurship I

**Offered:** B, 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

**Offered:** B, F, S

**Prerequisite:** Entrepreneurship I

Credit: 1 Unit (**Honors Level Course**)

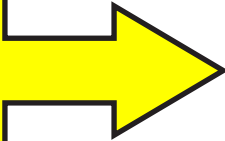
Grade Level: 10-12

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.



## Sales (PRSM)

Sales I  
Recommended  
Grades 9-11



Sales II

Recommended  
Grades 10-12  
Concentrator Course

### Sales I

**Offered:** S

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course will teach students the basic knowledge around the sales profession. Students will explore careers in selling, personal branding, communication skills, customer service, buying behavior, technology, types of selling, product knowledge, and the selling process.

### Sales II

**Offered:** S

**Prerequisite:** Sales I

Credit: 1 Unit

Recommended Grade Level: 10-12

This course will teach students the art of selling and will build on the content from the Sales I course. Students will further develop their personal brand and will continue to work on communication and customer service skills in addition to learning about pre and post-sales activities. Students will use role plays to engage in the selling process and will learn to think on their feet.

# Marketing Management (MMGT)

Marketing  
Recommended  
Grades 9-11

# Marketing Applications

## Recommended Grades 10-12

Concentrator Course

## Marketing

**Offered: B, F, S**

**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, F, S**

**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 Entertainment Marketing (SEMK)

Sports and Entertainment  
Marketing I  
Recommended  
Grades 9-11

**Sports and Entertainment Marketing II**  
Recommended Grades 10-12  
Concentrator Course

## Sports and Entertainment Marketing I

**Offered: B, F, M**

**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**

**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 Recommended Grades 9-11

### Project Management I

**Offered:** B, BH, F, 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 course.

## Project Management II—Global

Recommended

Grades 10–12

Concentrator Course

### Project Management II

**Offered:** B, BH, F, 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.



## *What is Project Management? Why is it Important?*

Project management according to the Project Management Institute (2020) is the application of knowledge, skill, tools, and techniques to project activities to meet the requirements and completion of a specific project.

The organizational skills learned in project management courses and possessed by project managers can be applied to all areas of work and leadership. Five of the most common areas where project management is applied included:



# 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

### Accounting I

**Offered:** Online Catawba

**Prerequisite:** None

**Credit:** 1 Unit (**Honors Level Course**)

**Grade Level:** 10-12

**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 help students understand the basic principles of the accounting cycle. Emphasis is placed on the analysis and recording of business transactions, preparation, and interpretation of financial statements, accounting systems, banking and payroll activities, basic types of business ownership, and an accounting career orientation.

### Accounting II

**Offered:** Online Catawba

**Prerequisite:** Accounting I

**Credit:** 1 Unit (**Honors Level Course**)

**Grade Level:** 10-12

**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 provide students with an opportunity to develop in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Emphasis includes departmental accounting, corporate accounting, cost accounting, and inventory control systems, managerial accounting and budgeting, and further enhancement of accounting skills.

### 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.



## CAREER OPPORTUNITIES IN BUSINESS

Business jobs are more than cubicles, suits, and 9-5 schedules. The opportunities are endless for students with experience and education in the business sector. The following provides a small window into the vast array of opportunities that exist for students interested in business and related fields.

- Statistician/Analyst
- Accounting
- Financial Managers/Advisors/Analysts
- Medical/Health Service Managers
- Actuary
- Business Operations Managers
- Cost Estimators
- Human Resource Specialists
- Logisticians
- Executive Assistants
- Insurance

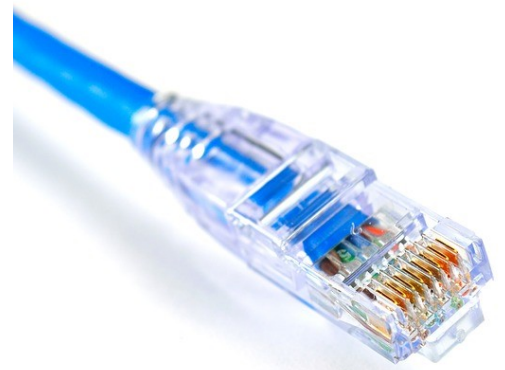


- Auditors
- Collection Agents
- Administrative Assistants
- Marketing Managers/Analysts
- Social Media Managers
- Public Relations
- Digital Marketing
- Sales
- Real Estate
- Customer Service Representatives
- Event Planners
- Compliance Officers

## Top 10 Manufacturers in Catawba County

### TOP 10 MANUFACTURERS (AS OF Q1, 2020)

1	Corning Optical Comm.	Cable	1000+
2	CommScope Inc	Cable	1000+
3	GKN Driveline	Automotive Supplies	1000+
4	Sutter Street Manufacturing	Furniture	500-999
5	Century Furniture LLC	Furniture	500-999
6	AdvancePierre Foods Inc	Frozen Foods	500-999
7	McCreary Modern Inc	Furniture	500-999
8	Lee Industries Inc	Furniture	500-999
9	Bassett Furniture Industries of NC	Furniture	500-999
10	HS Manufacturing	Foam Products	500-999







## Computer Science & Information Technology Education Pathways

### Computer Engineering (COEN)

CompTIA IT  
Fundamentals  
Recommended  
Grades 9-12

#### **CompTIA IT Fundamentals**

**Offered: S**

**Prerequisite: None**

Credit: 1 Unit

Recommended Grade Level: 9-11

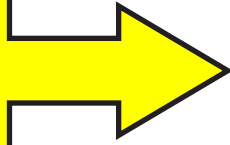
This course is designed for students to develop knowledge and skills required to identify and explain the basics of computing, IT infrastructure, application and software, software development, database fundamentals, and security. The course is also designed for students to develop the ability to demonstrate knowledge and skills to install software, establish basic network connectivity, identify or prevent basic security risks, explain troubleshooting theory, and provide preventative maintenance for devices.

CompTIA Fundamentals is a supplemental technical course.

# Computer Science Principles (CSPR)

## Computer Science Principles I

Recommended  
Grades 9-11



## Computer Science Principles II

Recommended  
Grades 10-12  
Concentrator Course

### Computer Science Principles I

**Offered:** BH, F

**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

**Offered:** BH, F

**Prerequisite:** Computer Science Principles I

Credit: 1 Unit

Recommended Grade Level: 10-12

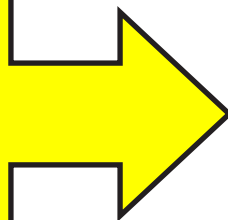
This is a second level introductory course in computer science builds on the foundation of Computer Science Principles I. This course offers a more in depth examination of a broad range of foundational topics such as programming, algorithms, the internet, big data, digital privacy and security, and the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



# Python Programming (PYPR)

## Python Programming I

Recommended  
Grades 9-11



## Python Programming II

Recommended  
Grades 10-12  
Concentrator Course

### Python Programming I

**Offered:** BH, F, 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

**Offered:** BH, F, M

**Prerequisite:** Python Programming I

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 Principles

Recommended

Grades 10-12



### AP Computer Science Principles

**Offered:** B, BH, M, F, 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.

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

## AP Computer Science

Recommended

Grades 11-12

Concentrator Course

Concentrator Course

### AP Computer Science

**Offered:** Online Catawba

**Prerequisite:** Math I and AP Computer Science Principles

Credit: 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.**

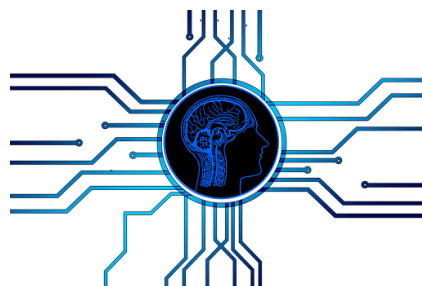
## Comparing AP Computer Science Courses

### 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.

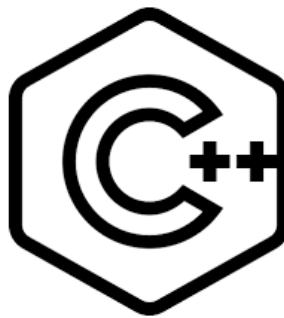




# Careers in Computer Science

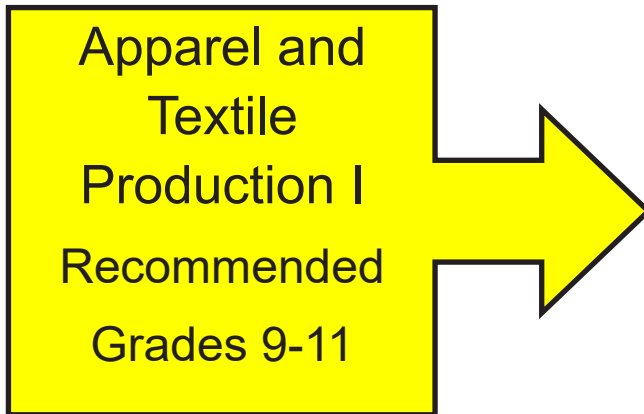
Careers in computer science and information technology are in high demand. Jobs in these areas are available across multiple industries, in including such areas as healthcare, government, business, and education. If interested in a career in computer science or IT, check out the list of possibilities.

- Research Analyst
- Network Architect
- Software Developer
- Information Security Analyst
- Information Systems Managers
- Hardware Engineers
- Database Administrators
- Operations Analysts
- Computer System Analysts
- Web Developers
- IT Consultant
- Cybersecurity
- Multimedia Programmer
- Game Developer
- Technical Writer
- Computer Programmer
- Health Information Technician



# Family and Consumer Science Education Pathways

## Apparel and Textile Production (ATPR)



### Apparel and Textile Production I

**Offered:** B, BH, M, S

**Prerequisite:** None

Credit: 1 Unit

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

**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.

## Students of Furniture Apprenticeship (soFA)

### Preparing Students for High Demand Jobs



The furniture industry has been a major part of the economy in Catawba County for generations. Today's furniture industry is different from decades past in that the technology and skills used in the industry today bring the high wages and opportunities like no time in the past.

Students interested in pursuing a career in the high demand and high paying industry of furniture may be interested in the

Champion Scholars Students of Furniture Apprenticeship Program (SOFA) offered through Catawba Valley Community College (CVCC).

This program provides high school students ages 16-18 with the knowledge and skills needed to develop a career in the furniture industry. The SOFA Program offers students an introduction to career opportunities and paid summer positions.

Students gain first-hand experience and introduced to skilled craftsmen and craftswomen in the areas of sewing, upholstery, cutting, machine operations, and various other aspects of the industry as a whole.

Students interested in pursuing involvement in the SOFA Program should contact their high school's Career Development Coordinator for the most up-to-date information.



# Family and Consumer Science Education Pathways

## Interior Design (INDE)

Interior Design I  
Recommended  
Grades 9-11

Interior Design II  
Recommended  
Grades 10-12  
Concentrator Course

### Interior Design I

**Offered:** All High Schools

**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 II

**Offered:** All High Schools

**Prerequisite:** Interior Design I

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.



“The good building is not one  
that hurts the landscape, but  
one which makes the  
landscape more beautiful  
than it was before the  
building was built”

*Frank Lloyd Wright*





# Family and Consumer Science Education Pathways

## Culinary Arts Applications (CULA)

**Culinary Arts and  
Hospitality I**  
Recommended  
Grades 9-11

### **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, grade manager, 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, grade manager, 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 II  
Applications**  
Recommended  
Grades 10-12

**Culinary Arts and  
Hospitality III**  
Recommended  
Grades 10-12  
Concentrator Course



### **Culinary Arts and Hospitality III**

**Offered:** BH, M, S

**Prerequisite:** Culinary Arts and Hospitality II

Credit: 1 Units

Recommended Grade Level: 11-12

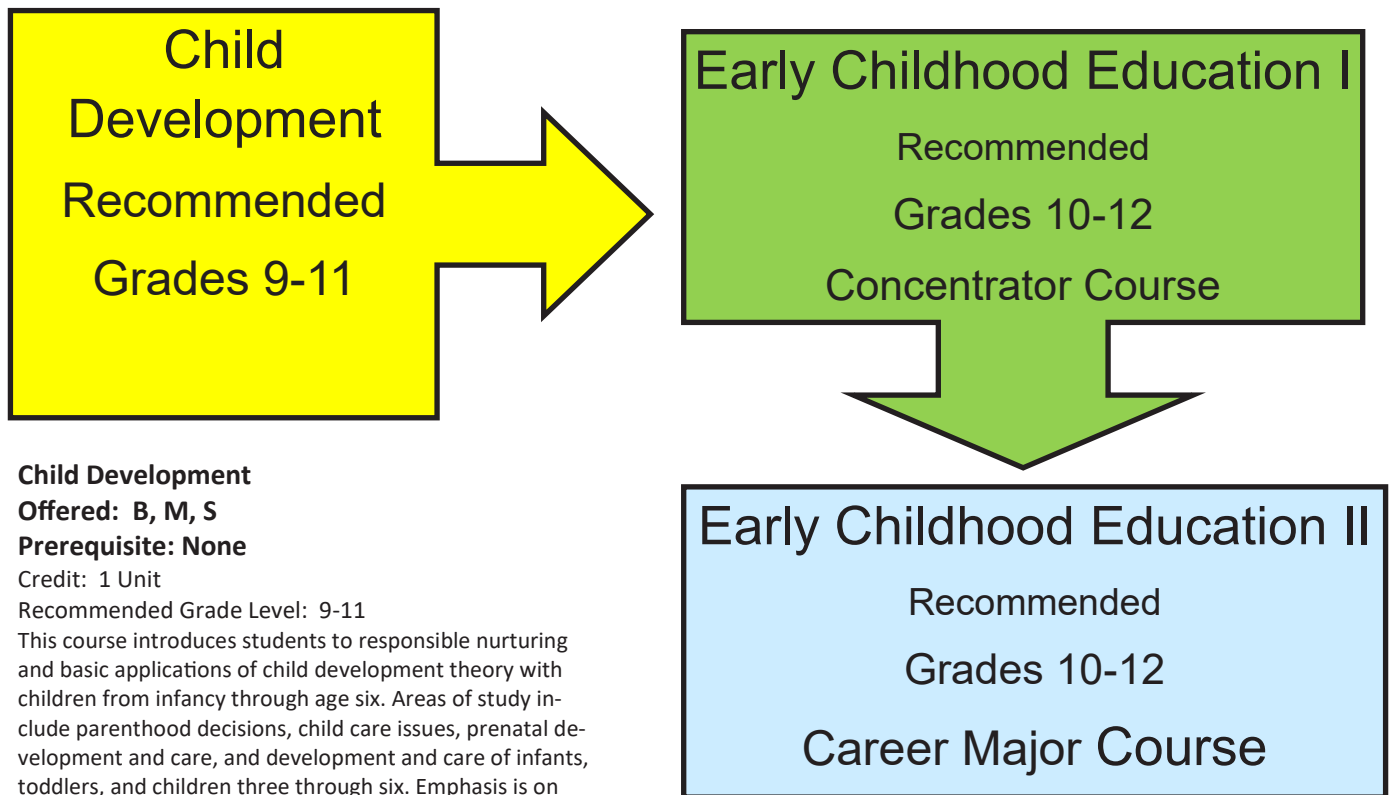
The course is designed for students to further develop their knowledge and skills through learning about advanced food preparation, grade manager, baking and pastry, and food service operations. The experience includes students learning cooking techniques, food preservation, yeast breads and pastries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

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



# Family and Consumer Science Education Pathways

## Early Childhood Development and Services (EACH)



### Child Development

**Offered:** B, M, S

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course introduces students to responsible nurturing and basic applications of child development theory with children from infancy through age six. Areas of study include parenthood decisions, child care issues, prenatal development and care, and development and care of infants, toddlers, and children three through six. Emphasis is on responsibilities of parents, readiness for parenting, and the influence parents have on children while providing care and guidance.

### Early Childhood Education I

**Offered:** B, M, S

**Prerequisite:** Recommended Child Development for 20-21 School Year

**Child Development Required Prerequisite for 21-22 School Year (Students should plan accordingly due to this change)**

**Students must be 16 by October 1**

Credit: 2 Units

Grade Level: 11-12

This two-credit course prepares students to work with children in early education and child care settings. Areas of study include personal and professional preparation, child development from birth to age 12, techniques and procedures for working with young children, and history, trends and opportunities in this field. 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](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.

### Early Childhood Education II

**Offered:** B, M, S

**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](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.



### Foods and Nutrition II

**Offered:** B, F, S

**Prerequisite:** Foods 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.







# Careers in Family and Consumer Sciences

Family and Consumer Sciences (FCS) provides the bridge needed by all students to deal with major societal issues such as work-and-family, health care, child and elder care, family and community violence and crime, global economics and politics, and technology usage. FCS Education is a catalyst to bring these issues into action-oriented, skill-building educational programs. The North Carolina FCS Education program provides a platform for students to transition into adult life by gaining a strong foundation of the knowledge and skills needed for successfully living and working in a diverse, global society.

- Apparel and Textile Design and Merchandising
- Dietetics
- Education
- Interior Design
- Nutrition and Fitness
- Communications
- Human Development
- Psychology, Mental Health Services, Counseling
- Food and Nutrition Sciences and Services
- Consumer Economics and Relations
- Childcare
- Research
- Product Development
- Marketing
- Chef
- Planners
- Fashion Coordinators and Designers
- Food Service Manager
- Tourism and Hospitality
- Retirement Specialist
- Caseworker

# Health Science Education Pathways

## Biomedical Technology (BTCP)

Health Science I  
Recommended  
Grades 9-11

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:** BH, F, M, S

**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 biomedical research.

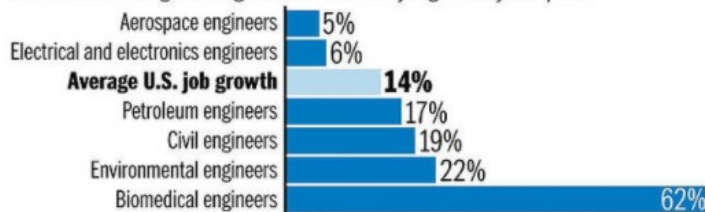


## Job Growth For Biomedical Technology

Biomedical technology is a broad term that combines engineering and technology to solve biological or medical problems involving humans, especially the design and use of medical equipment used to diagnose and treat various diseases. Biomedical technology can also be broken down into smaller sub-fields, like biomedical informatics, engineering, science and research.

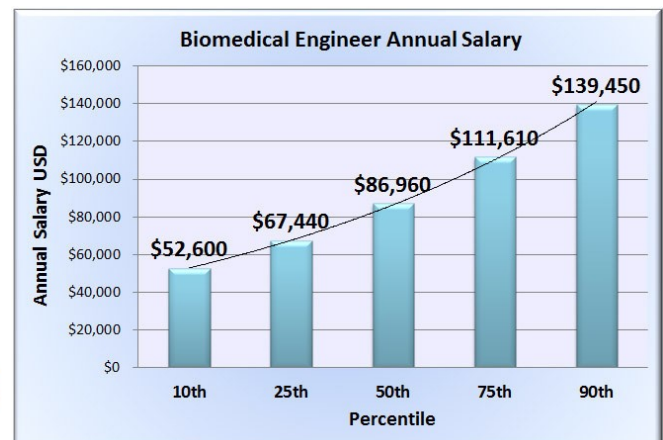
### U.S. job outlook for engineers through 2020

*The job market for some engineering disciplines is expected to grow faster than national averages through 2020. Percent of job growth by discipline:*

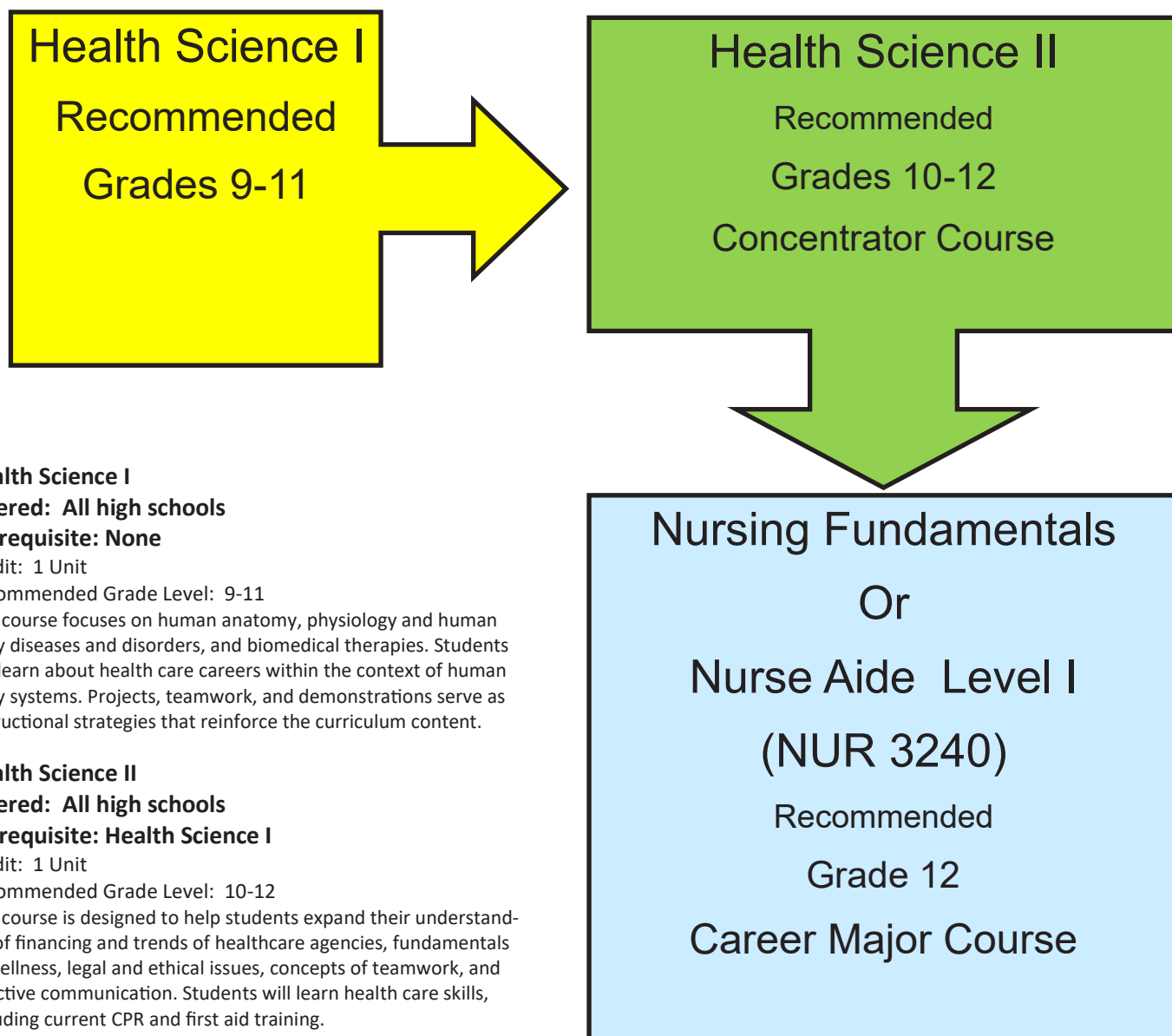


SOURCE: U.S. Bureau of Labor Statistics

DESERET NEWS GRAPHIC



# Healthcare Professional (HPCP)



## 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.

## 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.

## Nurse Aide Level I (NUR 3240)

**Offered:** S

**Prerequisite:** Health Science II

Credit: 2 Units (**Honors Level Course—CCP**)

Recommended Grade Level: 12

This course is designed to prepare graduates to provide personal care and perform basic nursing skills for the elderly and other adults. Emphasis on aging process including mental, social and physical needs of the elderly, patient's rights, nutrition management, elimination procedures, safe environment, restorative services, personal and special care procedures and activities, human body structure and function and related common disease/disorders, communication and documentation, death and dying, and roles of the nursing assistant and health team members. A skill/competency evaluation is required. The course includes class, laboratory and clinical learning experiences. Upon satisfactory completion of the course and skill/competency evaluation, the graduate is eligible to apply for listing as a Nurse Aide I by the N.C. Division of Facility Services.

## Nursing Fundamentals

**Offered:** B, BH, F, M

**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 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.



# Health Science 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.



## Foundation of Health Science

**Offered:** M, Online Catawba

**Prerequisite:** None

Credit: 1 Unit

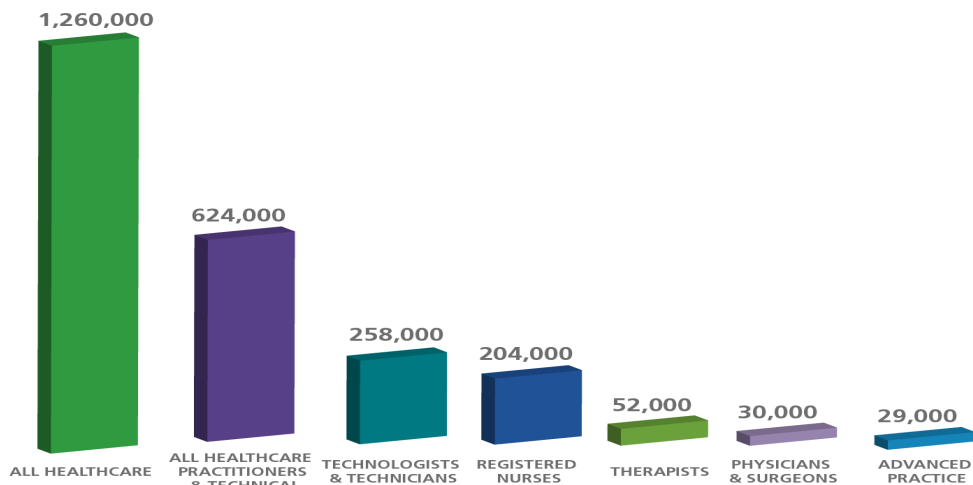
Recommended Grade Level: 9-12

This course is designed to assist potential health care workers in their role and function as health team members. Topics include terminology, the history of health care, healthcare agencies, ethics, legal responsibilities, health careers, holistic health, health care trends, cultural awareness, communication, medical math, leadership, and career decision making.

Health Care and Social Assistance, NC's largest industry by employment, is projected to be the fastest and highest growing, with 93,000 new jobs (16.1%) added.

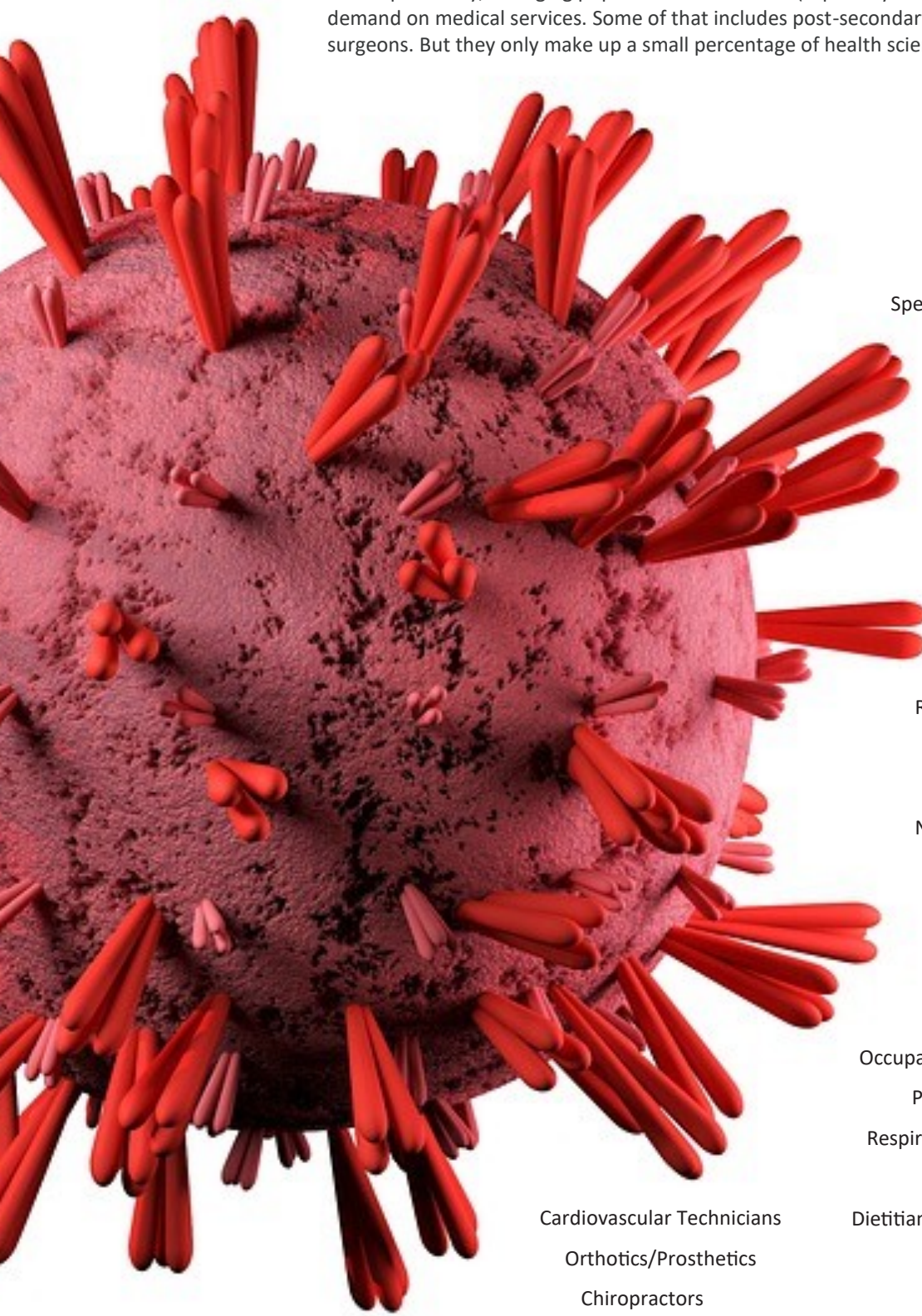
## AVERAGE ANNUAL JOB OPENINGS 2016-2026

Source: Bureau of Labor Statistics



# Careers in Health Sciences

Health science education matters because it trains the medical professionals of the next generation. More specifically, the aging population of the world (especially the United States) is placing a higher demand on medical services. Some of that includes post-secondary graduates like doctors and surgeons. But they only make up a small percentage of health science careers.



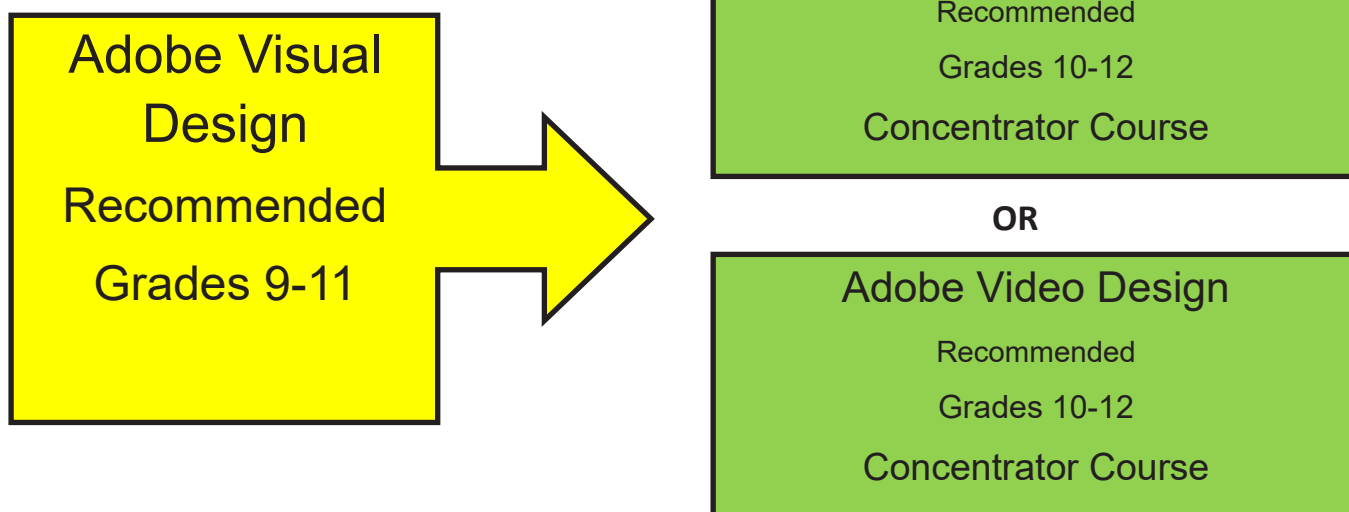
Dentist  
Physician Assistant  
Orthodontist  
Nurse Practitioner  
Physician  
Speech-Language Pathologist  
Veterinarian  
Nursing  
Physical Therapist  
Anesthesiologist  
MRI Technicians  
Sonographers  
Esthetician  
Audiologist  
Pharmacist  
Rehabilitation Specialist  
Radiation Therapist  
Dental Hygienists  
Nuclear Medicine Techs  
Genetics Counselors  
Physical Therapists

Cardiovascular Technicians  
Orthotics/Prosthetics  
Chiropractors  
Surgeon  
Nurse Anesthetist

Occupational Therapist  
Psychiatrist  
Respiratory Therapist  
Midwife  
Dietitian and Nutritionist

# Trade, Technology, Engineering & Industrial Education

## Adobe Academy (ADAC)



### **Adobe Visual Design**

**Offered:** B, M, S

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course is a project-based course that develops ICT, career, and communication skills in print and graphic design using Adobe tools. This course is aligned to Adobe Photoshop, InDesign, and Illustrator certification.

### **Adobe Digital Design**

**Offered:** B, M, S

**Prerequisite:** Adobe Visual Design

Credit: 1 Unit

Recommended Grade Level: 10-12

This course is a project-based course that develops ICT, career, and communication skills in Web design using Adobe tools. This course is aligned to Adobe Dreamweaver certification.

### **Adobe Video Design**

**Offered:** B, M

**Prerequisite:** Adobe Visual Design

Credit: 1 Unit

Recommended Grade Level: 10-12

This course is a project-based video course that develops career and communication skills in video production using Adobe tools. This course is aligned to Adobe Premiere certification.



## Technology Engineering and Design (TEND)

Technology  
Engineering and  
Design  
Recommended  
Grades 9-11

### Technology Engineering and Design

**Offered:** All High Schools

**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:** All High Schools

**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  
Recommended  
Grades 10-11

### Drone Technology I

**Offered:** BH

**Prerequisite:** None

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:** BH

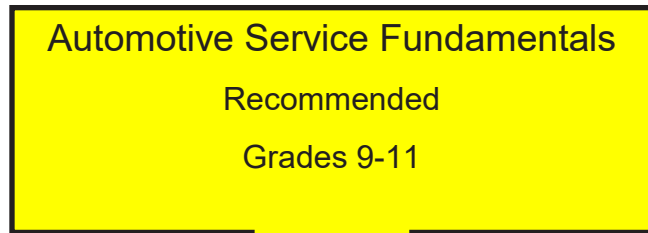
**Prerequisite:** Drone Technology I

Credit: 1 Unit

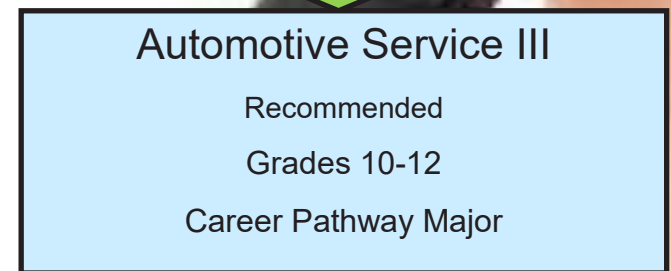
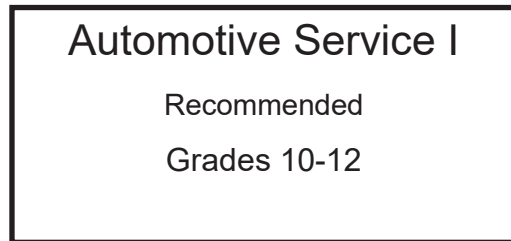
Recommended Grade Level: 11-12

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.

# Automotive Services (AUTO)



Currently Offered  
at Maiden High  
School Only



## 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 hands-on experience. As part of the NATEF accreditation, topics are aligned to the Maintenance and Light Repair (MLR) requirements.

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

## 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.

## Automotive Service II

**Offered: M**

**Prerequisite: Automotive Service I**

Credit: 1 Unit (**Honors Level Course**)

Recommended Grade Level: 10-12

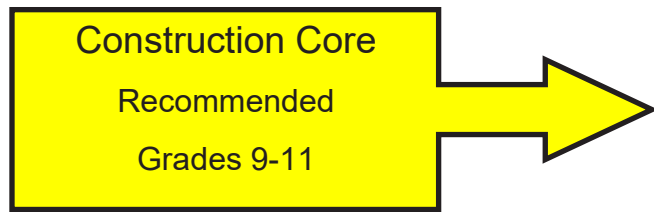
This course builds on the knowledge and skills introduced in Automotive Servicing I and develops advanced knowledge and skills in vehicle system repair and/or replacement of components in the brakes, electrical systems, drivetrain, engine, HVAC and steering & suspension systems, emphasizing hands-on 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 (MLR- G1).

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

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

# Carpentry (CARP)



## Construction Core

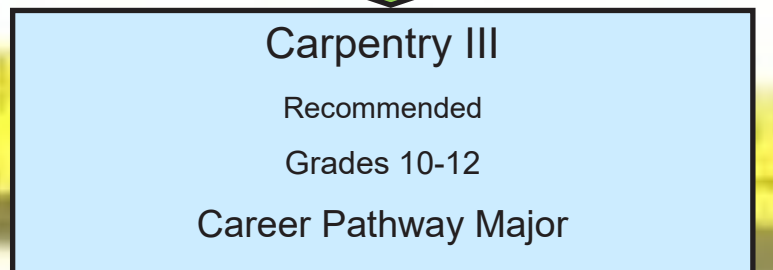
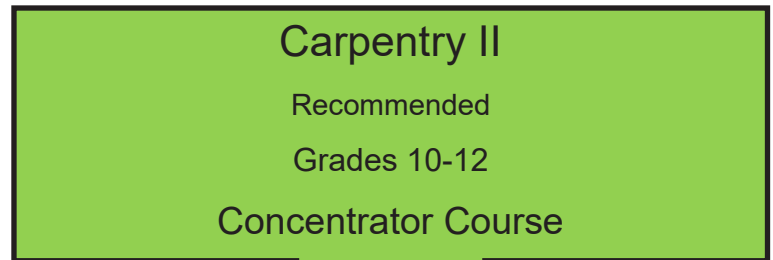
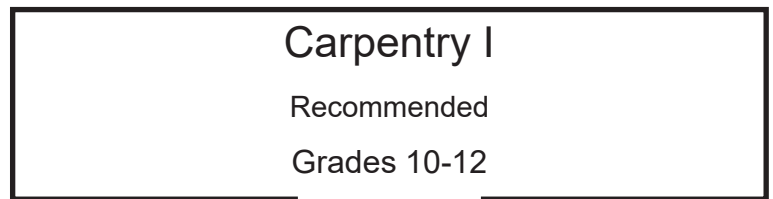
**Offered:** F, M, S

**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



## 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

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.

## 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.



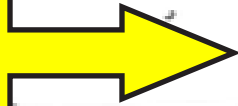


# Masonry (MASO)

## Construction Core

Recommended

Grades 9-11



### Construction Core

**Offered:** 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. 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

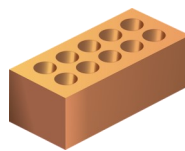
Credit: 1 Unit (**Honors Level Course**)

Recommended Grade Level: 11-12

This course builds on skills mastered in 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.



# Electronics

(Local Option Course)

## Electronics I Recommended Grades 9-11

### Electronics I

**Offered:** F

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-11

This course covers Direct Current (DC) Basics and is aligned to the Electronic Technicians Association (ETA) EM1 certification. Topics include a) basic electrical theory, b) magnetism, c) safety, d) electronic equipment, e) electronic components, f) Ohms Law. Mathematics for electronics, g) electronic measurements, h) series circuits, i) parallel circuits, j) series/parallel circuits, and k) battery power supplies.

## Electronics II Recommended Grades 10-12 Concentrator Course

### Electronics II

**Offered:** F

**Prerequisite:** Electronics I

Credit: 1 Unit

Recommended Grade Level: 10-12

This course covers Digital Basics and is aligned to the Electronic Technicians Association (ETA) EM4 certification.. Topics include: a) numbering systems and conversions, b) block diagrams— schematics-wiring diagrams, c) test equipment and measurements, d) safety, e) theory of digital logic functions and circuitry, and f) computer electronics.



# Game Art Design (GAAR)

## Digital Design and Animation I Recommended Grades 9 -11

### Digital Design and Animation I

**Offered:** S

**Prerequisite:** None

Credit: 1 Unit

Recommended Grade Level: 9-11

Digital Design and Animation I is an introductory level course focusing on the concepts and tools used by digital artists in a wide variety of creative careers including graphic design, film, and game design. Students work with professional-grade creative software packages to develop 2D and 3D digital graphics and audio/video media. Students use Adobe CC Suite, and digital 3D modeling with 3DS Max to build needed skills for subsequent courses.

## 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 software.





## Careers in Trade, Technology, Engineering & Industry

Top job opportunities in these areas may include:

- Carpentry
- Masonry
- Architecture
- HVAC
- Electrician
- Plumbing
- Emergency Management
- Firefighter
- Law Enforcement
- Public Safety
- Construction
- Welding
- Fabrication
- Manufacturing
- Electronics
- Woodworking
- Furniture
- Engineering
- Automotive Repair
- Automotive Services
- Collision Repair
- Landscaping and Grounds Maintenance
- Emergency Management



# 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.



# CTE Work-Based Learning Opportunities

Work-based learning (WBL) is an educational strategy that provides students with real-life work experiences where they can apply academic and technical skills and develop employability skills. The concept of work-based learning has been in practice for centuries and is an integral part of the Catawba County Schools CTE Program. Work-based learning experiences occur in a work setting, typically at an employer's worksite. The work-based learning activities are coordinated with school-based activities in an attempt to show students the "why" of what they are learning. Work-based learning strategies provide career awareness, career exploration opportunities, career planning activities, and help students reach competencies such as positive work attitudes and employability skills.

## Types of Work-Based Learning

### Pre-Apprenticeship/Apprenticeships

Apprenticeship is a system of skilled occupational training that combines practical work experiences with related academic and technical instruction. An apprentice works on the job for an employer and is taught and supervised by an experienced person in the chosen occupation. The preplanned, progressively challenging work-based learning experience usually extends two to four years. Any work completed by a high school student in a Pre-apprenticeship could transfer to a Registered Apprenticeship upon graduation from high school. A Pre-apprenticeship does not require the multi-year commitment that a Registered Apprenticeship requires.

### Internships

An internship is a work-based learning experience where a student participates in the daily operations of a work site under the direct supervision of a business mentor. The internship provides a realistic environment within which a student intern learns about a particular industry or occupation and applies knowledge and skills learned in the classroom. Internships can be paid or unpaid. Paid internships must receive prior approval. Internships can occur during the regular school year or during the summer.



# 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 total of 135 internship hours 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

# Catawba County Schools CTE Summer Work-Based Learning

## Receiving Summer Academic Credit for Work-Based Learning Experiences

Catawba County partners with several businesses and organizations to offer students the opportunity to participate in a summer work-based learning experience. Students may be eligible to earn local half credit where permissible under North Carolina guidelines for course credit. Students earning a half unit of credit must complete 70 hours and all required documentation. The credit becomes part of the student's permanent high school transcript.

## Receiving Summer Academic Credit for Internships

Students earning one full unit of credit during the summer must complete a total of 135 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.



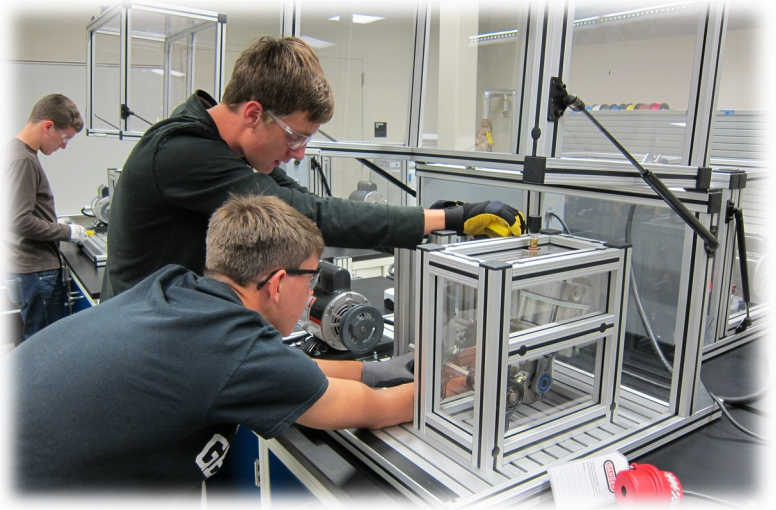


# Apprenticeship Catawba

Catawba County Schools, Catawba Valley Community College, and local area manufacturers have partnered to offer apprenticeships to area high school students. Students accepted into the Apprenticeship Catawba Program receive full scholarships to earn a 2-year Associate Degree in Applied Science through Catawba Valley Community College

## Apprenticeship Catawba Eligibility

Students wishing to participate with Apprenticeship Catawba must have a minimum GPA of 3.0, have excellent math and technical skills, and a good attendance record. For more information on Apprenticeship Catawba, contact your school guidance counselor or Tina Propst, Apprenticeship Coordinator—Catawba County Schools at 828-464-8333.



# WHAT?

Is An Apprenticeship

- 4-year program: two days per week at CVCC, combined with 8,000 hours of on-the-job training provided by a local manufacturing company
- Journeyman Certificate-Apprenticeship NC and the US Department of Labor
- Associate in Applied Science in Mechatronics Engineering Technology or Computer Integrated Machining Technology from CVCC
- Earn a paycheck while earning a degree and learning manufacturing skills
- College education is free; the company will pay 100% of tuition and books
- Guaranteed employment opportunity with 4-years seniority (based on successful completion and satisfactory job performance)
- Additional scholarship opportunities to continue education and obtain 4-yr degree (may vary by company)
- Career and College Promise-get a jump start into Apprenticeship Catawba!

# WHY?

Do An Apprenticeship

- Earn while learning
- Full scholarship to earn your degree while earning a paycheck
- Earn a 2-year Associate in Applied Science
- Guaranteed employment based on satisfactory job performance

# Career and College Promise

## Career Technical Education Pathways Offered at High Schools

Catawba County Schools, in partnership with Catawba Valley Community College, offers Career and College Promise Career and Technical Education 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
- TURFGRASS MANAGEMENT
- AUTOMOTIVE



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





## WELDING TECHNOLOGY CERTIFICATE PATHWAY

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

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#### Total Credit Hours: 18

Courses	College Credit Hours
WLD-110 - Cutting Processes	2
WLD-115AB - SMAW (Stick) Plate-AB	3
WLD-115BB – SMAW (Stick) Plate-BB	2
WLD-121 – GMAW (MIG) FCAW/Plate	4
WLD-131 – GTAW (TIG) Plate	4
WLD-141 – Symbols & Specifications	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.



## WELDING TECHNOLOGY FABRICATION CERTIFICATE PATHWAY

### Classes Offered at Bandys High School and St. Stephens High School

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#### Total Credit Hours: 18

Courses	College Credit Hours
WLD-110 - Cutting Processes	2
WLD-115AB - SMAW (Stick) Plate-AB	3
WLD-115BB – SMAW (Stick) Plate-BB	2
WLD-121 – GMAW (MIG) FCAW/Plate	4
WLD-131 – GTAW (TIG) Plate	4
WLD-141 – Symbols & Specifications	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



## TURFGRASS MANAGEMENT CERTIFICATE PATHWAY

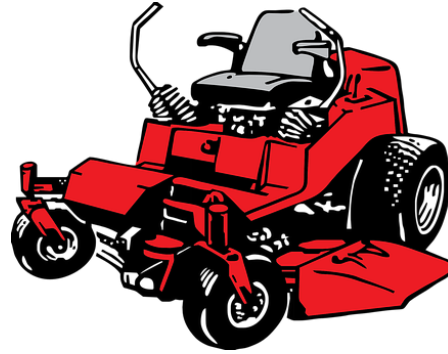
### Classes Offered at Fred T. Foard High School

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#### TURFGRASS MANAGEMENT

##### Classes Offered at Foard

**HOR 166 Soil & Fertilizers**  
**TRF 110 Intro Turfgrass Cult & ID**  
**TRF 120 Turfgrass Irrigat & Design**  
**TRF 240 Turfgrass Pest Control**



High School Prerequisites: None  
College Prerequisites: None  
High School Credit: TBD  
College Credit: 14 semester hours credit  
Grade Level: 12

These curricula are designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study. Course work includes plant identification, pest management, plant science, and soil science.. Also included are courses in sustainable plant production & management, landscaping, and the operation of horticulture businesses. Graduates should qualify for employment in a variety of positions associated with nurseries, garden centers, greenhouses, landscape operations, governmental agencies/parks, golf courses, sports complexes, highway vegetation, turf maintenance companies, and private and public gardens. Turfgrass Management Technology is a program that focuses on turfgrasses and related groundcover plants and prepares individuals to develop ornamental or recreational grasses and related products; plant, transplant, and manage grassed areas; and to produce and store turf used for transplantation. Potential course work includes instruction in applicable plant sciences, genetics of grasses, turf science, use analysis, turf management, and related economics.

**HOR 166 Soil & Fertilizers** —This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation; classification; physical, chemical, and biological properties (including microorganisms); testing; and fertilizer application. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices. (*Prerequisite: None; Corequisite: None*)

**TRF 110 Intro Turfgrass Cult & ID** —This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices. (*Prerequisite: None; Corequisite: None*)

**TRF 120 Turfgrass Irrigat & Design** —This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices. (*Prerequisite: None; Corequisite: None*)

**TRF 240 Turfgrass Pest Control** —This course covers detection and identification of turfgrass pests with emphasis on methods of sustainable management. Topics include pest identification with an understanding of pesticides used, application procedures, and costs involved in sustainable management programs. Upon completion, students should be able to identify turfgrass pests, select the proper pesticide, develop pest management programs, and/or use integrated pest management. (*Prerequisite: None; Corequisite: None*)



## AUTOMOTIVE CERTIFICATE PATHWAY

### Classes Offered at St. Stephens High School

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**Total Credit Hours: 15**

<b>Courses</b>	<b>College Credit Hours</b>
<b>TRN 110: Intro to Transport Tech</b>	2
<b>TRN 120: Basic Transp Electricity</b>	5
<b>AUT 151: Brake Systems</b>	3
<b>AUT 151A : Brake Systems Lab</b>	1
<b>AUT 141: Suspension &amp; Steering Sys</b>	3
<b>AUT 141A : Suspension &amp; Steering Lab</b>	1



#### **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 troubleshooting. 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 co-op 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 co-op 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.



# Career Scholars Cohort Program for Seniors

Beginning in the 2021-2022 school year, eligible seniors will be able to participate in the CTE Career Scholars Cohort Program. In partnership with Catawba Valley Community College (CVCC) and K64, eligible seniors will have the opportunity to complete their remaining high school core classes on the campus of CVCC and participate in CVCC CTE Pathway Programs in the following areas:

Electrical Systems Technology

Automotive Systems Technology

Advertising & Graphic Design

Mechatronics Engineering Technology

Computer Integrated Machining Technology

## Career Scholars Cohort Program Criteria

**Students eligible for the Career Scholars Cohort Program must meet the following criteria:**

- Completion of all required high school graduation requirements to be a senior
- Be in good standing with the following:
  - Student Conduct
  - Academic Standing – Required unweighted GPA of 2.8 or higher
  - Attendance

All students must complete an application for consideration and preference will be given to students who have completed relevant HS pathways in CTE. In addition, all senior applicants must provide the following with the application:

- A Recommendation by the High School Principal
- Documentation from a High School Counselor on required course completion

### **Transportation**

- Students are responsible for providing transportation to CVCC Campus or participate in transportation provided by Challenger Early College buses (Note: Bus transportation with Challenger may alter HS courses from face-to-face to online formats)

### **Student Fees**

- Students participating in the Career Scholars Cohort will be required to pay Career and College Promise fees to be determined by CVCC

**Scheduling for the Career Scholars Cohort may vary by subject area. Eligible students will be required to complete final high school courses on the campus of CVCC in Math IV, English IV, and Social Studies. Courses may be online or in a face-to-face setting. Students are expected to remain in good standing in all high school courses throughout the program in order to maintain eligibility. Depending on enrollment in the program, high school classes may be offered in the morning or afternoon while CVCC CTE Courses will be taught in opposite time slots.**

**Students interested in completing their senior year in one of the five cohort areas should review the following tentative schedules in each of the areas and meet With their high school counselor for registration and application purposes.**

## 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.

Note: Courses for this pathway are in review and may be subject to change.

## 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

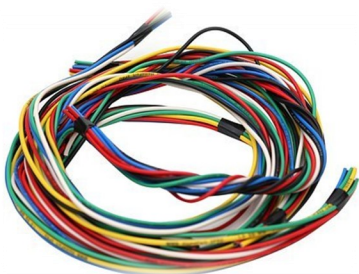
Credit Hours: 4

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.



## ELECTRICAL SYSTEMS TECHNOLOGY DIPLOMA TOOL LIST

Students are responsible for providing their own individual tools for this pathway. Tools used in this pathway are individual investments that can be transferred to the job field upon completion of the program. Course instructors guide students on when purchasing needs to occur throughout each of the course offerings. The tool list includes the following:

Hammer Holder  
Six-In-One Tapping Tool  
Electrician's or Maintenance Tool Pouch  
2" Leather Belt  
9" Lineman's Pliers  
8" Adj. Wrench  
25 ft. Steel Tape  
Round Shank Flat-tip screwdriver, 6x1/4  
Round Shank Flat-tip screwdriver, 6x3/16  
Square Shank Flat-tip screwdriver, 8x3/8  
10 in 1 Multi-bit Screwdriver  
Electrician's Knife  
16 oz. Straight Claw Hammer  
9" Level w/magnet  
9-1/2" Tongue/Groove Plier  
Multi-meter, Ideal Resi-Pro 61-312 or equal with capacitance setting  
Wire Stripper Cutter, Flat, 10-18 AWG  
Crimping Tool  
Safety Glasses  
Work Gloves  
Flashlight  
Diagonal Cutters  
Romex Stripper  
Conduit Reamer  
Needle Nose

***Instead of the tool pouch, belt, and hammer holder many students opt to purchase a bag type storage which is completely acceptable.***

Tools purchased for this course can be transferred directly to the workforce upon completion of the program. Instructors will provide guidance throughout the program when specific tools may be needed to spread purchases out over a reasonable period of time.





**Total Credit Hours: 12****Courses**

EGR 110—Intro to Engineering Tech  
ELC 131—Circuit Analysis I  
MEC 130—Mechanisms  
DFT 151—CAD I

**College Credit Hours**

2 (Fall Semester)  
4 (Fall Semester)  
3 (Spring Semester)  
3 (Spring Semester)

Maximum Enrollment: 16

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

**EGR 110 - Intro to Engineering Tech**

Credit Hours: 2

This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals.

**ELC 131 - Circuit Analysis I**

Credit Hours: 4

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

**MEC 130 - Mechanisms**

Credit Hours: 3

This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.

**DFT 151—CAD I**

Credit Hours: 3

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.



## ADVERTISING & GRAPHIC DESIGN HIGH SCHOOL PATHWAY

**Total Credit Hours: 16**

### Courses

**GRD 141: Graphic Design**

**GRD 151: Computer Design Basics**

**GRD 152: Computer Design Tech I**

**GRD 110: Typography I**

**WBL 120: Career Readiness/Explore/Employ**

### College Credit Hours

4 (Fall Semester)

3 (Fall Semester)

3 (Spring Semester)

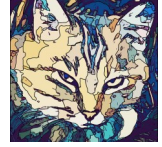
3 (Spring Semester)

3 (Fall, Spring, or Summer)

Online

Maximum Enrollment: 20

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



### GRD 141: Graphic Design

Credit Hours: 4

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

### GRA 151: Computer Design Basics

Credit Hours: 3

This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool.



### GRD 152: Computer Design Tech I

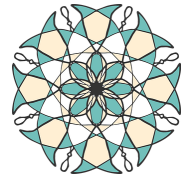
Credit Hours: 3

This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work.

### GRD 110: Typography I

Credit Hours: 3

This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements.



### WBL 120: Career Readiness/Explore/Employ

Credit Hours: 3

This course is designed to familiarize individuals with fundamental skill sets that are critical for successful employment including locating and using workplace information, conveying professionalism, communicating effectively, promoting teamwork, thinking critically, and providing individuals with career exploration experiences. Topics include career readiness credential preparation, career exploration, and employability skillsets. Upon completion, students should be able to demonstrate the ability to locate and use information, interpret graphic information, apply mathematics to work-related situations, use key employability skills, and match education with careers in business and industry.

Supplies Needed for this pathway:  
Mat Board, Tracing Paper, Clear Plastic Page Protectors,  
Design Kit (\$105)

## COMPUTER INTEGRATED MACHINING TECHNOLOGY PATHWAY CERTIFICATE

### Total Credit Hours: 14

#### Courses

**MAC 131 – Blueprint Reading/Mach I**

**MAC 151 – Machining Calculations**

**MAC 141 – Machining Applications I**

#### College Credit Hours

2 (Fall Semester)

2 (Fall Semester)

4 (Spring Semester)

Maximum Enrollment: 12

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

### **MAC 131 – Blueprint Reading/Mach I**

Credit Hours: 2

This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

### **MAC 151 – Machining Calculations**

Credit Hours: 2

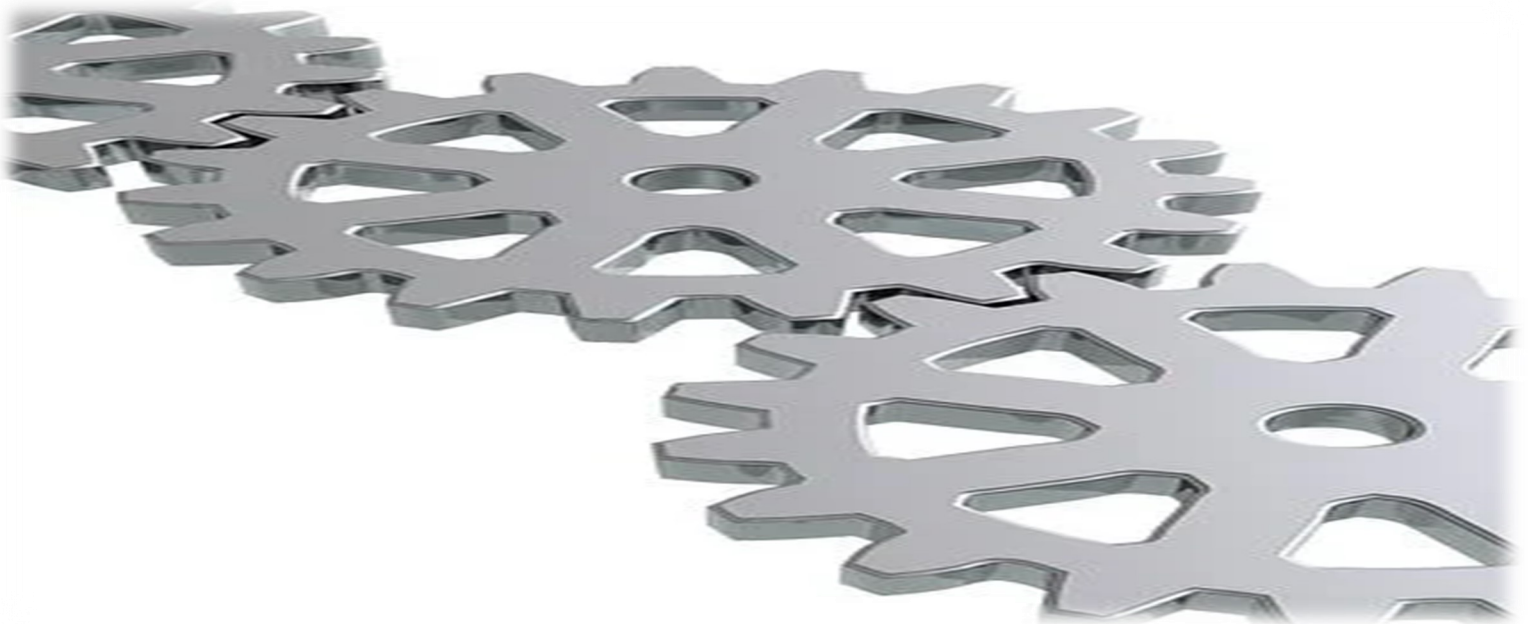
This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool.

### **MAC 141 – Machining Applications I**

Credit Hours: 4

This course increases observation skills using basic drawing techniques and media in graphic design. Emphasis is placed on developing the use of graphic design principles, media applications, spatial considerations, drawing styles, and approaches. Upon completion, students should be able to show competence and proficiency in finished works.

**Courses Remaining in Pathway to be completed in summer or following graduation: MAC 122, MAC 124, MEC 110**





## AUTOMOTIVE SYSTEMS TECHNOLOGY PATHWAY

### Total Credit Hours: 15

#### Courses

TRN 110: Intro to Transport Tech

TRN 120: Basic Transp Electricity

AUT 151: Brake Systems

AUT 151A : Brake Systems Lab

AUT 141: Suspension & Steering Sys

AUT 141A : Suspension & Steering Lab

#### College Credit Hours

2 (Fall Semester)

5 (Fall Semester)

3 (Spring Semester)

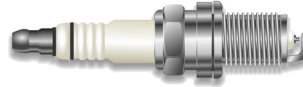
1 (Spring Semester)

3 (Summer)

1 (Summer)

Maximum Enrollment: 12

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



### 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 troubleshooting. 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 co-op 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.

**Courses Remaining in Pathway to be completed in summer or following graduation: AUT 141 and AUT141A**

**Note:** Students will need to have the following:  
1- safety glasses (approx. \$5)  
2- CVCC Automotive Shirt (\$22)  
3- closed-toe non-canvas shoes

# Career and Technical Student Organizations

Each of the high schools within Catawba County Schools, sponsors a number of Career and Technical Student Organizations (CTSOs). Career and Technical Student Organizations (CTSO) enhance student learning through contextual instruction, leadership and personal development, applied learning and real world application.

CTSOs work as an integral component of the classroom curriculum and instruction, building upon employability and career skills and concepts through the application and engagement of students in hands-on demonstrations and real life and/or work experiences through a Career and Technical Education (CTE) program. CTSO's help guide students in developing a career path, a program of study and provide opportunities in gaining the skills and abilities needed to be successful in those careers through CTSO activities, programs and competitive events. In addition, students have opportunities to hold leadership positions at the local, state, and national level and attend leadership development conferences to network with other students as well as business and industry partners.



DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe.



Family, Career and Community Leaders of America is a nonprofit national career and technical student organization for young men and women in Family and Consumer Sciences education. Everyone is part of a family, and FCCLA is the only national Career and Technical Student Organization with the family as its central focus.



FBLA-PBL inspires and prepares students to become community-minded business leaders in a global society through relevant career preparation and leadership experiences.



HOSA's two-fold mission is to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people. HOSA's goal is to encourage all health occupations instructors and students to join and be actively involved in the HSE-HOSA Partnership.



The National FFA Organization (formerly known as the Future Farmers of America) envisions a future in which all agricultural education students will discover their passions and build on that insight to chart a course for their education, careers and personal futures. FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success



SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps each student excel. SkillsUSA's mission is to empower its members to become world-class workers, leaders and responsible American citizens.

SkillsUSA is an applied method of instruction for preparing America's high performance workers in public career and technical programs. It provides quality education experiences for students in leadership, teamwork, citizenship and character development. It builds and reinforces self-confidence, work attitudes and communications skills. It emphasizes total quality at work—high ethical standards, superior work skills, life-long education, and pride in the dignity of work. SkillsUSA also promotes understanding of the free-enterprise system and involvement in community service.

One hundred thirty (130) trade, technical and skilled service occupational titles are represented in the curricula of SkillsUSA member students, covering the construction, manufacturing, transportation, health sciences, information technology, communications, personal services, hospitality, public safety and engineering technology industries.





# National Technical Honor Society



The National Technical Honor Society currently serves approximately 100,000 active members and nearly a million members since its inception in 1984. Awarding over \$2 million in scholarships to date, NTHS honors the achievements of top CTE students, provides scholarships to encourage the pursuit of higher education, and cultivates excellence in today's highly competitive, skilled workforce. For over 30 years, NTHS has been the acknowledged leader in the recognition of outstanding student achievement in career and technical education.

Students interested in joining the NTHS must meet specific GPA and course requirements. Each high school will advise students on the requirements for eligibility with the CTE Program. For more information contact your school's NTHS Sponsor/Advisor.



# CVCC Champion Scholars Summer Programs



WORKFORCE DEVELOPMENT INNOVATION CENTER  
cvcc.edu/workforce\_development

## Champion Scholars Summer Program



Students of Furniture Apprenticeship



Manufacturing Academy

**Apply Using  
The QR Code**



Construction Careers Academy

Explore a Career | Earn College Credits from CVCC  
Earn High School Credit | Summer Employment

## Explore Careers!

### Classroom:

Introduction to Furniture,  
Manufacturing or Construction  
Trades

### Summer Employment:

Paid Pre-Apprentice Position with a  
Local Furniture, Manufacturing or  
Construction Company

**\$10/hour**

**Summer 2021**

## Champion Scholars Summer Program

This program provides high school juniors, seniors and recent graduates with the knowledge and skills to develop an exciting new career in furniture, manufacturing or construction.

Our program will not only introduce you to new career opportunities, but will provide a **paid summer position** as a pre-apprentice with a local furniture, manufacturing or construction company.

Additionally, you will be registered as a continuing education student as CVCC and can earn additional high school credits.

For more information or to register, please call us at

828.327.7000 x4294 | jeversole@cvcc.edu



# CVCC Construction Careers Academy Summer Program



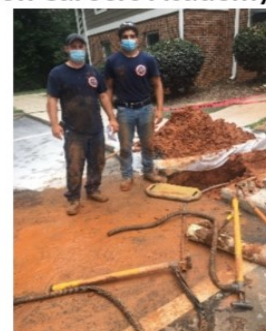
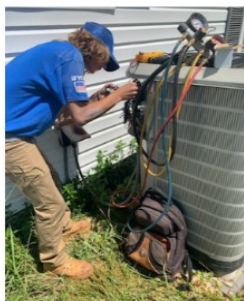
Champion Scholars Summer Program

## Construction Careers Academy

### Explore a Career in Construction!

- Learn a Construction Trade – Electrician, Plumber, Carpenter, HVAC Technician
- Work with a Local Construction Company -- \$10/hr
- Earn College Credits at CVCC
- Earn High School Credits

For more information go to CVCC's Website ([www.cvcc.edu](http://www.cvcc.edu)) and search Construction Careers Academy



# CVCC Manufacturing Academy Summer Program



Summer Scholars Program -- 2021

## Manufacturing Academy

### Become a Pre-Apprentice in Manufacturing!

- Learn about Manufacturing – Equipment Operator, Maintenance Technician, Material Handling, Shipping & Receiving.
- Work with a Local Manufacturing Company -- \$10/hr
- Earn College Credits at CVCC
- Earn High School Credits

For more information go to CVCC's website ([www.cvcc.edu](http://www.cvcc.edu)) and search for Manufacturing Academy





# CVCC Students of Furniture Apprenticeship Summer Program



Champion Scholars Summer Program

## Students of Furniture Apprenticeship

If you are interested in an exciting new career, enjoy working with your hands, and enjoy creating or "building things," then the Students of Furniture Apprenticeship Program is right for you. **Now Recruiting**—high school juniors, seniors, and recent graduates

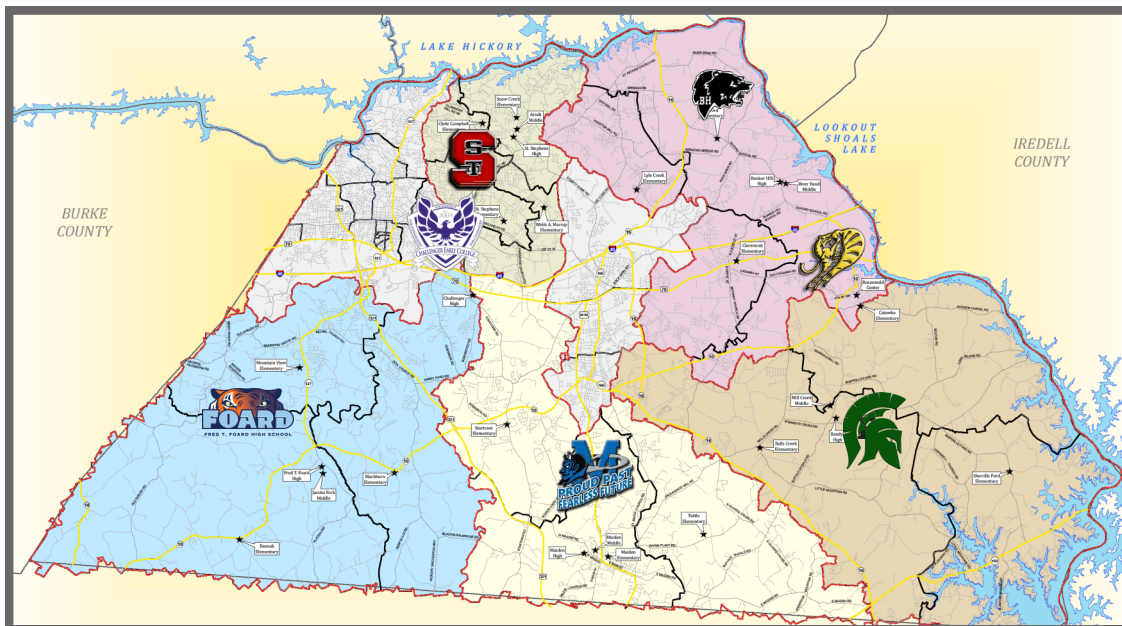
### Benefits include:

- Training in Furniture Fundamentals—7-week Summer class in the basics.
- Explore a career in furniture (sewing, upholstery, manual cutting, automated cutting, pattern-making, and spring-up)
- Express your creativity
- Earn college credit
- Earn high school credit
- Summer employment that can lead to a full-time job and apprenticeship opportunity with an area furniture company
- Get paid \$10/Hour!!

For more information go to CVCC's Website ([www.cvcc.edu](http://www.cvcc.edu)) and search Furniture Apprenticeship



# 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 MacIntosh, AP  
Brandon Harbinson, AP  
Karen McClure, Lead Counselor

## Challenger Early College High School

CVCC Campus 2550 Hwy 70 SE  
Hickory, NC 28602  
(828) 485-2980  
FAX (828) 485-2981  
**Fred Whalen, Principal**  
Brigitte DeArman, AP  
Amy Sigmon, Lead Counselor

## Maiden High School

600 W Main Street  
Maiden, NC 28650  
(828) 428-8197  
FAX (828) 428-8341  
**Brian Hefner, Principal**  
Melissa Gemes, AP  
Caine Houser, AP  
Christel Murray, Lead Counselor

## Bunker Hill High School

4675 Oxford School Road  
Claremont, NC 28610  
(828) 241-3355  
FAX (828) 241-9401  
**Lee Miller, Principal**  
James Byrd, AP  
Jenny Fry, AP  
Gigi Moore, Lead Counselor

## Fred T. Foard High School

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

## St. Stephens High School

3205 34<sup>th</sup> Street Drive NE  
Hickory, NC 28601  
(828) 256-9841  
FAX (828) 256-7159  
**Kyle Stocks, Principal**  
Neil Everett, AP  
Chris Johnson, AP  
Amy Rucker, AP  
Amber Moulton, Lead Counselor

## Catawba Rosenwald Education Center

403 6th Avenue SW  
Catawba, NC 28609  
(828) 241-2734  
FAX (828) 241-4999  
**Dr. Tim Adams, Principal**  
Dr. Robin Harvey, AP  
Michael Smith, Lead Counselor

All school websites can be  
located at: [www.catawbaschools.net](http://www.catawbaschools.net)

