

Career Technical Education Pathway



The Career and Technical Education Pathway provides options for high school students to earn tuition-free college credits toward an entry-level job credential or a certificate or diploma aligned with a High School Career Cluster.

To be eligible, junior and senior students must:

- Have an **unweighted** GPA of 2.8 on high school courses, demonstrate college readiness in English, reading, and math on approved placement tests, **or** recommendation and written rationale of principal or his/her designee **AND** RCC VP of Academic Affairs or VP of Student Development. (Assessment scores should be considered. RCC recommends no less than a 2.0 weighted GPA.) Principal recommendation will not be allowed for CTE pathways with UGETC (Universal General Education Transfer Component) courses included in the pathway.
- received career pathway information outlining requirements for completion of the certificate or diploma
- meet the prerequisites for the courses in the program of study (This could include placement testing.)
- complete an online *Rocking Community College Application*
- complete the *Career and College Promise Enrollment Form*

To maintain eligibility for continued enrollment, a student must

- Continue to make progress toward high school graduation. This means students must attend high school classes and be in good standing. Students who are successfully making progress towards high school graduation have access to the CTE pathways for up to two years - one as a junior and one as a senior. Colleges may request a graduation plan verifying what high school courses remain and the anticipated graduation date.
- Maintain a 2.0 GPA in college coursework after completing two courses.
- A student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory progress.
- A student must enroll in one program of study and may not substitute courses in one program for courses in another.
- With approval of high school principal and Vice President for Academic Affairs or Student Development, students may change his/her program of study, based on verification provided by the student that the program change allows the student to meet their newly chosen career path.
- With approval of high school principal and Vice President for Academic Affairs students may:
 - concurrently enroll in two CTE programs of study
 - enroll in both a College Transfer Pathway program of study and a Career Technical Education program of study
- Students who complete the CTE certificate or diploma may continue in the same traditional Associate Applied Science (AAS) as long as they are still eligible for CCP. Some courses within the program may have developmental course pre-requisites which must be met.

The Career and Technical Education Pathway has nine programs of study. They include:

Agribusiness Technology - pending SACSCOC approval. Provides an introduction to Agriculture-related businesses and practices. Topics include Sustainable Agriculture, Agricultural Marketing, Biological Pest Control, and Animal Science. Currently, no placement testing required for 2020-2021. (This will most likely be offered as an afternoon program.)

Air Conditioning Heating, and Refrigeration Basics - Provides an introduction to and foundational knowledge of the HVAC (Heating, Ventilation, and Air Conditioning) field. This certificate may be completed in one year and is suited for both males and females who are interested in working with their hands, the public, and HVAC systems in a variety of settings. Individuals completing this certificate could work for an HVAC company as a technicians assistant. Currently, no placement testing required for 2020-2021; however, an ability to learn and apply mathematical concepts is required. (Afternoon courses)

Business Administration - The business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organization in today's global economy, earning college credit and high school credit simultaneously! Course work includes business concepts such as accounting, business law, and entrepreneurship which provide students a sound business education base for lifelong learning. English and Math placement testing currently required for 2020-2021 academic year, if student does not meet 2.8 unweighted GPA or English/reading/math readiness. (on-line and seated courses available)

Criminal Justice - Designed to provide knowledge of criminal justice systems and operations. Employment opportunities exist in a variety of local, state and federal law enforcement, corrections and security fields. Currently, no placement testing is required for 2020-2021. (some on-line course work available)

Early Childhood - Prepares individuals to work with children from birth through eight diverse learning environments. This program includes course work to help prepare students to apply for childcare credentials from the state of North Carolina. English placement testing required for 2020-2021. (some on-line course work available)

Manual Machining - Preference given to Reidsville High School juniors/seniors. Program will be located in Reidsville High School/RCC Manual Machine Lab. Prepares students with analytical, creative and innovative skills necessary to take a production idea from initial concept through design, development and production, resulting in a finished product. Currently, no testing required for 2020-2021; however, an ability to learn and apply mathematical concepts is required (for example: addition, subtraction, multiplication, division of fractions, converting fractions to decimals, converting angles to degrees/minutes, ability to read a ruler in metric and standard, understanding, understanding metric, standard, and decimal systems.)

Manufacturing Technology - *This program is currently limited to pre-apprentices and apprentices on the RockATOP program.*

Web Technologies - The Information Technology (IT) curriculum is designed to introduce students to computer concepts including fundamental functions and operations of the computer. Coursework prepares students for entry level employment in positions in the technology sector that rely on computer systems to program, design, manage, and market information. Currently, no placement testing required for 2020-2021. (on-line and seated courses available)

Welding - Provides the students with a sound understanding of science, technology, and applications essential for successful employment in the welding and metal industry. Currently, no placement testing required for 2020-2021; however, an ability to learn and apply mathematical concepts is required (for example, fractions, decimals, ability to read a ruler in metric/standard.) Fall semester: M-F 8am - 10:50am; Spring semester: M-F 8am - 11:10am

<p>Agribusiness (C15100AP) – pending SACSCOC approval</p> <p>AGR 139 Intro to Sustainable Agriculture(3) AGR 214 Agricultural Marketing(3) AGR 121 Biological Pest Control (3) ANS 110 Animal Science (3)</p>	<p>Air Conditioning, Heating, & Refrigeration Basics (C35100HS)</p> <p>AHR 110 Intro to Refrigeration(5) AHR 111 HVACR Electricity (3) ISC 112 Industrial Safety (2) AHR 113 Comfort Cooling (4) AHR 114 Heat Pump Technology</p>
Total SHC 12	Total SHC 18
<p>Business Administration (C25120BP)</p> <p>BUS 115 Business Law (3) ACC 120 Principals of Financial Accounting (4) BUS 110 Introduction to Business(3) BUS 139 Entrepreneurship (3)</p>	<p>Criminal Justice (C55180GP)</p> <p>CJC 111 Introduction to Criminal Justice (3) CJC 112 Criminology (3) CJC 113 Juvenile Justice (3) CJC 131 Criminal Law (3)</p>
Total SHC 13	Total SHC 18
<p>Early Childhood Education (C55220EP)</p> <p>EDU 119 Early Childhood Education (4) EDU 131 Child, Family, & Community (3) EDU 144 Child Development I (3) EDU 145 Child Development II (3) EDU 146 Child Guidance (3)</p>	<p>Manual Machining (C50210RP) @RHS Spring 2020 – preference given to RHS juniors and seniors</p> <p>BPR 111 Blueprint Reading(2) ISC 112 Industrial Safety (2) MAC 111 Machining I (6) MAC 114 Intro to Metrology (2)</p>
Total SHC 16	Total SHC 12
<p>Manufacturing Technology (C50320MP) (For RockATOP pre-apprentices and apprentices)</p> <p>BPR 111 Blueprint Reading (2) ISC 112 Industrial Safety(2) ISC 132 Manufacturing Quality Control (3) MAC 114 Intro to Metrology (2) MEC 180 Engineering Materials (3)</p>	<p>Web Technologies (C25590IP)</p> <p>CIS 110 Introduction to Computers (3) CTI 110 Web Programming and Database Foundations (3) WEB 210 Web Design (local pre-req: CTI 110) (3) WEB 213 Internet Marketing and Analytics (local pre-req: CTI 110) (3)</p>
Total SHC 12	Total SHC 12
<p>Welding (C50420WP)</p> <p>WLD 115 SMAW (stick) Plate (5) WLD 121 GMAW (MIG) FCAW/Plate(4) WLD 131 GTAW (TIG) Plate (4) WLD 141 Symbols and Specifications (3)</p>	
Total SHC 16	

Career Technical Education Pathway Courses

Agribusiness (C15100AP)* Pending SACSCOC approval

AGR 139 Intro to Sustainable Agriculture

Pre-requisites: None

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

AGR 214 Agricultural Marketing

Pre-requisites: None

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

AGR 121 Biological Pest Control

Pre-requisites: None

(3 credits) This course will emphasize the building and maintaining of healthy soil, plant and insect biological cycles as the key to pest and disease management. Course content includes study of major pests and diseases, including structure, life cycle, and favored hosts; and biological and least toxic methods of chemical control. Upon completion, students will be able to identify and recommend methods of prevention and control of selected insects and diseases.

ANS 110 Animal Science

Pre-requisites: None

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

Air Conditioning, Heating & Refrigeration Basics (C35100HS)

AHR 110 Intro to Refrigeration

Pre-requisites: None

(5 credits) This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems.

AHR 111 HVACR

Pre-requisiites: None

(3 credits) This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment.

AHR 113 Comfort Cooling

Pre-requisites: None

(4 credits) This course covers the installation procedures, system operation, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels.

AHR 114 Heat Pump Technology

State Pre-requisites: AHR 110 or AHR 113

(4 credits) This course covers the principles of air source and water source heat pumps. Emphasis is places on safety, modes of operation, defrost systems, refrigerant charging, and system performance.

ISC 112 Industrial Safety

State Pre-requisites: None

(2 credits) This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations.

Courses have ENG/MAT pre-requisites.
College readiness or placement
testing required.

Business Administration (C25120BP)

BUS 115 Business Law I

Pre-requisites: DRE 097 or ENG 002P1

*(3 credits) This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to identify ethical issues that arise in business decisions and the laws that apply to them. **This course has been approved for transfer under the CCA and ICAA as a pre-major and/or elective course requirement.***

ACC 120 Principles of Financial Accounting

Pre-requisites: DRE 097 or ENG 002P1; AND DMA 010-030 or MAT 003P1

*(4 credits) This course introduces business decision-making accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. **This course has been approved for transfer under the CAA and ICAA as a pre-major and/or elective course requirement.***

BUS 110 Introduction to Business

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

BUS 139 Entrepreneurship I

This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow.

Criminal Justice (C55180GP)

CJC 111 Introduction to Criminal Justice

(3 credits) This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions and philosophy of the criminal justice system and their relationship to life in our society.

CJC 112 Criminology

(3 credits) This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics.

CJC 112 Juvenile Justice

(3 credits) This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics.

CJC 131 Criminal Law

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

Early Childhood Education (C55220EP)

EDU 119 Introduction to Early Childhood Education

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

EDU 131 Child, Family, & Community

Pre-requisites: DRE 097 or ENG 002P1

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

EDU 144 Child Development I

Pre-requisites: DRE 097 or ENG 002P1

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

EDU 145 Child Development II

Pre-requisites: DRE 097 or ENG 002P1

(3 credits) This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse. This course has been approved for transfer under the CAA and ICAA as a pre-major and/or elective course requirement.

EDU 146 Child Guidance

Pre-requisites: DRE 097 or ENG 002P1

(3 credits) This course introduces evidence-based strategies to build nurturing relationships with each child by applying principles and practical techniques to facilitate developmentally appropriate guidance. Topics include designing responsive/supportive learning environments, cultural, linguistic and socio-economic influences on behavior, appropriate expectations, and the importance of communication with children/families including using technology and the use of formative assessments in establishing intentional strategies to encourage social skills, self regulation, emotional expression and positive behaviors while recognizing the relationship between children's social, emotional and cognitive development.

Manual Machining (C50210RP) (RHS)

BPR 11 Blueprint Reading

Pre-requisites: None

(2 credits) This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections, dimensioning methods, and notes.

ISC 112 Industrial Safety

Pre-requisites: None

(2 credits) This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations.

MAC 114 Intro to Metrology

Pre-requisites: None

(2 credits) This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments.

MAC 111 Machining Technology I

Pre-requisites: None

(6 credits) This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments.

Web Technologies (C25590IP)

CIS 110 Introduction to Computers

Pre-requisites: None

(3 credits) This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

CTI 110 Web, Programming, and Database Foundations

Pre-requisites: None

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

WEB 210 Web Design

Pre-requisites: CTI 110

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

WEB 213 Internet Marketing and Analytics

Pre-requisites: CTI 110

(3 credits) This course introduces students to Search Engine Optimization (SEO), Search Engine Marketing (SEM) and web analytics. Topics include Search Engine Optimization (SEO), Pay Per Click advertising (PPC), Search Engine Marketing (SEM), web analytics, eye-tracking software and email marketing. Upon completion, students should be able to set up, monitor and maintain SEO optimized websites; and develop strategies for online marketing and advertising plans.

Welding (C50420WP)

WLD 115 SMAW (Stick) Plate

Pre-requisites: None

(5 credits) This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes.

WLD 121 GMAW (MIG) FCAW/Plate

Pre-requisites: None

(4 credits) This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove weld with emphasis on application of GMAW and FCAW electrodes on carbon steel plate.

WLD 131 GTAW (TIG) Plate

Pre-requisites: None

(4 credits) This course introduces gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis on safety setup, and welding techniques.

WLD 141 Symbols & Specifications

(3 credits) This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols and specifications.