

GIVING DIRECTION  
TO THE FUTURE

*Career Pathways Overview*





## AGRICULTURAL MECHANICS AND TECHNOLOGY

Students in this pathway are introduced to the major areas of scientific agricultural production and research. They will learn about the scientific theories, principles, and practices involved in the production and management of plants for food, feed, fiber, conservation, and ornamental use as well as the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products.



## FORESTRY/NATURAL RESOURCES

Students receive instruction in the areas of basic agriculture science, forest science, wildlife management, and natural resources management. Students choosing the forestry and natural resources field will engage in careers which focus on conserving and managing our forest and natural resources. Sample job opportunities in this field include wildlife manager, park manager, fish and game officer, forest worker, logger, forest manager and fisheries manager. Anyone interested in this field should enjoy working outdoors.



## PLANT SCIENCE/HORTICULTURE

The Plant Science/Horticulture pathway prepares students for occupations and higher education experiences related to the science of cultivating plants. Students participate in classroom and laboratory activities to gain knowledge and skills in the areas of floriculture production, general horticulture, landscape design and management, nursery production and management, turf production and management, floral design and management, plant science, and biotechnology.



## BROADCAST/VIDEO PRODUCTION

The video and broadcast production pathway prepares students for exciting opportunities in the broadcast video industry. Students will write scripts, create sets, use props, operate cameras and microphones, apply the principles of light/sound engineering to record video for both television and film production, and utilize editing equipment to create final productions.



## CONSTRUCTION

In this pathway, students acquire the knowledge and skills necessary to be successful in today's construction industry, including: carpentry, electrical, plumbing, masonry, and construction management. In addition, students are introduced to both commercial and residential construction techniques, the safe and proper operating procedures of tools, print reading, building layout, construction theory, materials, cost estimation and scheduling.



## TRANSPORTATION/AUTOMOTIVE SERVICES

By using hands-on learning with 'live work' vehicles, students are taught to operate equipment available in today's modern automotive repair facilities. They receive specific instruction in the areas of brakes, steering and suspension, engine diagnostics and repair, electrical/electronic systems, and heating and air conditioning.





## FINANCE, ACCOUNTING AND BANKING

Students in this pathway study the essentials of owning and operating a business including management, budgeting and finance, technology, communications, legislation, leadership and teamwork, marketing, and economics. Students analyze business transactions and financial statements, perform payroll, examine the global perspective of accounting and evaluate the effects of transactions in the economic health of a business. In addition, students are introduced to banking operating procedures, negotiable instruments, and the deposit and credit functions of a bank. Topics such as issues and trends in banking, business and individual investments, business partnerships, risk management techniques, insurance products, ethical practices, money management, and the stock market are also addressed.



## INTERACTIVE MEDIA/WEB DESIGN

Students in this pathway receive hands-on instruction in creating, designing and producing interactive multimedia products and services, including the development of digitally-generated or computer-enhanced media used in business, training, entertainment, communications and marketing.



## COMPUTER SYSTEMS REPAIR AND NETWORKING

Students in the Computer Systems Repair pathway learn the skills necessary to both diagnose and correct problems encountered by computer users. They learn the function of hardware components, maintenance, safety procedures and the design of human-computer interfaces. Through classroom and laboratory activities students develop skills to assemble, configure, install software, and troubleshoot computer hardware, software, and related accessories. A pathway in Networking will provide students with the background knowledge and skills necessary to understand current networking technology for local area networks (LANs), wide-area networks (WANS), and the Internet. Students will receive training in the classroom as well as a laboratory setting, where students will participate in simulated lab exercises and demonstrations that reinforce information in the class. Completion of this pathway will prepare students for the Comp TIA Net+, CCNT and CCNA, and Networking Essentials exams.



## GRAPHIC DESIGN, COMMUNICATION AND PRINT

Students in this pathway plan, analyze, and create visual communications through effective methods and mediums such as print, electronic, illustrations, photography, and film media. Students work with color, type, illustration, animation, and various print and layout techniques. Program curriculum focuses on the development of overall layout for displays, packaging, and marketing brochures of products and services, design of distinctive logos for products and businesses, and development of signage systems. Students will work in a variety of mediums including Internet, web page design, interactive and multimedia.



## CULINARY ARTS

Students in this pathway will work with the latest tools and technologies in the curriculum to learn the skills and information necessary for employment in the hospitality industry, including: food preparation, nutrition, menu planning, sanitation, equipment operation, inventory control, purchasing, and customer service skills. Students in this pathway will be prepared for positions as chefs, cooks, and food preparation workers who prepare, season, and cook a wide range of foods—from soups, snacks, and salads to entrees, side dishes, and desserts.



## ENGINEERING AND MANUFACTURING

Students in this pathway are introduced to the history, systems, and processes of invention and innovation. As they progress through the pathway they learn about the areas of specialization within engineering and engineering design and apply engineering tools and procedures as they complete hands-on activities. Students will also use applications of mathematics and science to predict the success of an engineered solution and complete hands-on activities with tools, materials, and processes as they develop working drawings and prototypes. Students design and test digital electronic circuitry, model and analyze product solutions using solid modeling CAD software and apply the principles of robotics, automation, and computer numerical control to produce actual prototypes of their three-dimensional designs.





## EARLY CHILDHOOD EDUCATION

Students gain knowledge and skills in the development of activities and educational lessons for preschool children through the implementation of activities conducted in an operating pre-school lab. The core classes and curriculum are designed to meet the needs of students focused on entering a wide range of early childhood education professional jobs such as the organization, management and operation of preschools and child care facilities. Students introduce children to math, language, science and social studies through the use of games, music, artwork, films, books, computers and other tools to teach basic skills. Students are responsible for planning, evaluating and assigning lesson plans; preparing, administering and grading tests and maintaining discipline.



## GOVERNMENT AND PUBLIC SAFETY

(FIRE, LAW AND EMERGENCY SERVICES)

Students are introduced to criminal law and policy, police and correctional systems, the administration of justice and the judiciary, and constitutional laws. The program includes the application of the physical, biomedical, and social sciences to analyze and evaluate physical evidence, human testimony, and criminal suspects. Skills taught include crime scene analysis, fingerprint technology, and enforcement procedures.



## HEALTHCARE

Healthcare Science provides the challenging academic courses, relevant on-the-job experience, and specialized technical skills needed to succeed in the healthcare industry. In the classroom and laboratory, students build solid math, science, reading, writing, and communication skills, with special emphasis on developing the problem-solving and decision-making skills required in the fast-paced healthcare industry. Students will learn basic concepts of health, wellness, and preventative care; medical terminology; microbiology; life-support skills; and the ethical and legal responsibilities of today's healthcare provider.



## COSMETOLOGY

Students will receive specialized training in: occupational safety; sanitation; chemistry, anatomy and physiology; skin, hair, and nail diseases and disorders; hair treatments and manipulations; hair shaping; hair styling; artificial hair; skin and nail care; hair coloring and lightening; customer reception; sales; business management; and state laws and rules and regulations of the industry. Program graduates receive a Shampoo Technician Technical Certificate of Credit making them employable in a beauty shop or salon as an assistant to a Master Cosmetologist.



## MARKETING (MANAGEMENT, SPORTS AND FASHION)

Students in the marketing program have the opportunity to pursue three pathways—management, sports, and fashion—each of which provide lucrative career opportunities. Students in the management career pathway are introduced to the ways in which marketing satisfies consumer and organizations needs and wants for products and services. The Sports Marketing pathway prepares students for careers in marketing individuals, groups, organizations, and companies specifically in the field of sports. Those interested in the fashion industry are introduced to the fundamentals of fashion marketing and develop skills in such areas as fashion economics and marketing.



## SMALL BUSINESS DEVELOPMENT

Students enrolled in the Small Business Development Career Pathway plan to own and operate their own businesses. This pathway will help students build a strong knowledge base and develop management skills as they study forms of business ownership, functions of management, budgeting and finance, technology, communications, legislation, leadership and teamwork, marketing, and economics.



# Newton College and Career Academy

## Creating the Pipeline of our Next Generation Workforce

With the full support of the Newton County Board of Education, the Newton County Chamber of Commerce, DeKalb Technical College, and our community and business leaders, the Newton College and Career Academy (NCCA) was created to enhance academic achievement and provide students with the knowledge and skills necessary to succeed in postsecondary education and the workforce. Our goal is to provide students in Newton County high schools with requisite skills and knowledge to exceed the majority of U.S. Department of Education performance indicators; to increase the number of students in Newton County high schools receiving post-secondary credits through local post-secondary partners; and to help students become workplace ready in order to be gainfully employed or to continue their education and training in a variety of post-secondary options.

Students at NCCA will have the chance to connect more directly with their career paths and earn industry credentials in addition to their high school diploma, increasing the chance for our students to be gainfully employed in a very competitive work environment. Programs at NCCA focus in areas that are high skill, high wage, and high demand occupations.

We offer 18 Career Pathway programs in our state-of-the-art classroom and laboratory facilities.

### ***NCCA Career Programs***

- AGRICULTURAL MECHANICS AND TECHNOLOGY
- BROADCAST/VIDEO PRODUCTION
- COMPUTER SYSTEMS REPAIR AND NETWORKING
- CONSTRUCTION
- COSMETOLOGY
- CULINARY ARTS
- EARLY CHILDHOOD EDUCATION
- ENGINEERING AND MANUFACTURING
- FINANCE, ACCOUNTING AND BANKING
- FORESTRY/NATURAL RESOURCES
- GRAPHIC DESIGN, COMMUNICATION AND PRINT
- GOVERNMENT AND PUBLIC SAFETY
- HEALTHCARE
- INTERACTIVE MEDIA/WEB DESIGN
- MARKETING
- PLANT SCIENCE/HORTICULTURE
- SMALL BUSINESS DEVELOPMENT
- TRANSPORTATION / AUTOMOTIVE SERVICES

*“college and  
career ready”*





The Newton College and Career Academy (NCCA) is located in Covington, Georgia and serves the students of the Newton County School System (NCSS).

Students in all three Newton County high schools are eligible for enrollment at NCCA. For more information about student enrollment contact Mr. James Woodard at [woodard.james@newton.k12.ga.us](mailto:woodard.james@newton.k12.ga.us) or a Newton County high school guidance counselor.

**Newton College & Career Academy**

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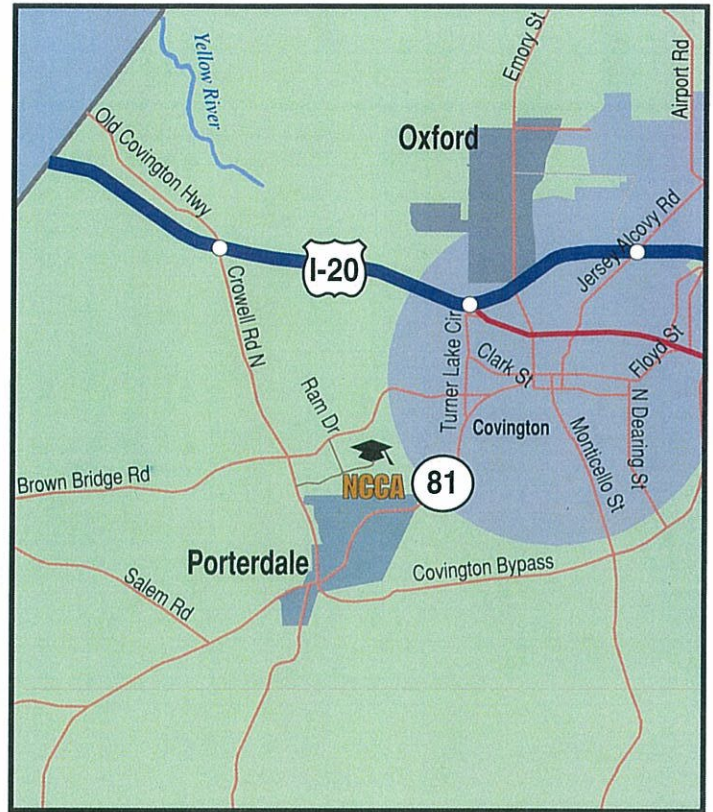
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