



**Mount Airy City Schools**  
**Career and Technical Education Pathways**  
**Grades 6-12**



## CTE CAREER CLUSTERS & PATHWAYS

### NORTH CAROLINA CAREER AND TECHNICAL EDUCATION

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| BUILDING & MOVING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CARING FOR COMMUNITIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CONNECTING & SUPPORTING SUCCESS*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CREATING & EXPERIENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CULTIVATING RESOURCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | INVESTING IN THE FUTURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>ADVANCED MANUFACTURING</b></p> <ul style="list-style-type: none"> <li>Aerospace Engineering</li> <li>Automated Materials Joining</li> <li>Drafting Engineering</li> <li>Engineering</li> <li>Integrated Production Technologies</li> <li>Metals Manufacturing</li> <li>Technology Engineering and Design</li> </ul> <p><b>CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li>Carpentry</li> <li>Drafting Architectural</li> <li>Electrical Trades</li> <li>HVACR</li> <li>Masonry</li> <li>Plumbing</li> <li>Welding</li> <li>Woodworking</li> </ul> <p><b>SUPPLY CHAIN AND TRANSPORTATION</b></p> <ul style="list-style-type: none"> <li>Automotive Body Repair</li> <li>Automotive Service</li> <li>Global Logistics and Supply Chain Management</li> </ul> | <p><b>EDUCATION</b></p> <ul style="list-style-type: none"> <li>Early Childhood Development and Services</li> <li>Teaching/Training</li> </ul> <p><b>HEALTHCARE AND HUMAN SERVICES</b></p> <ul style="list-style-type: none"> <li>Biomedical Technology</li> <li>Biotechnology Research and Development</li> <li>Counseling and Mental Health</li> <li>Food and Nutrition</li> <li>Health Informatics</li> <li>Healthcare Professional</li> </ul> <p><b>PUBLIC SERVICE AND SAFETY</b></p> <ul style="list-style-type: none"> <li>Emergency Management</li> <li>Emergency Medical Technology</li> <li>Firefighter Technology</li> <li>Junior Reserve Officers Training Corps</li> <li>Law and Justice</li> <li>Public Safety</li> </ul> | <p><b>DIGITAL TECHNOLOGY AND COMPUTER SCIENCE*</b></p> <ul style="list-style-type: none"> <li>AP Computer Science</li> <li>CIE Computer Science</li> <li>Cisco Network Engineering</li> <li>Computer Engineering</li> <li>Computer Science Principles</li> <li>Data Science</li> <li>Network Administration</li> <li>Network Security</li> <li>Python Programming</li> <li>Unmanned Aircraft Systems</li> </ul> <p><b>MANAGEMENT AND ENTREPRENEURSHIP*</b></p> <ul style="list-style-type: none"> <li>Business Ethics and Law</li> <li>Entrepreneurship</li> <li>General Management</li> <li>Office Administration</li> <li>Project Management</li> </ul> <p><b>MARKETING AND SALES*</b></p> <ul style="list-style-type: none"> <li>Marketing Management</li> <li>Sales</li> <li>Sport and Event Marketing</li> </ul> | <p><b>ARTS, ENTERTAINMENT, AND DESIGN</b></p> <ul style="list-style-type: none"> <li>3D Modeling and Animation</li> <li>Adobe Graphic Design</li> <li>Adobe Video Design</li> <li>Fashion Merchandising</li> <li>Fashion and Textile Design</li> <li>Game Art Design</li> <li>Interior Design</li> </ul> <p><b>HOSPITALITY, EVENTS, AND TOURISM</b></p> <ul style="list-style-type: none"> <li>Culinary Arts Applications</li> <li>Culinary Arts Internship</li> <li>Hospitality and Tourism Management</li> </ul> | <p><b>AGRICULTURE</b></p> <ul style="list-style-type: none"> <li>Animal Science</li> <li>Equine Science</li> <li>Food Products and Processing Systems</li> <li>Plant Systems</li> <li>Power, Structural, and Technical Systems</li> <li>Sustainable Agriculture</li> </ul> <p><b>ENERGY AND NATURAL RESOURCES</b></p> <ul style="list-style-type: none"> <li>Clean Energy Technology</li> <li>Energy and Power</li> <li>Innovations in Science and Technology</li> <li>Natural Resources</li> <li>Solar Photovoltaics</li> </ul> | <p><b>FINANCIAL SERVICES</b></p> <ul style="list-style-type: none"> <li>Accounting</li> <li>Economics</li> <li>Financial Planning</li> </ul> <p><b>*Cross-Cutting Clusters:</b></p> <p>denote careers that overlap in all industries, highlighting the versatile and interconnected nature of today's workforce. These careers can stand on their own or be contextualized in each cluster. They emphasize the need for adaptability in navigating the modern economy.</p> <p><b>Note:</b></p> <p>CTE Career Clusters and Pathways are listed in alphabetical order under each Cluster Grouping.</p> |

# CTE CAREER CLUSTERS & PATHWAYS

North Carolina Career and Technical Education

