

<b>HVAC</b> <b>47.0201</b>	
<b>Objective of Technical Education-</b> <ul style="list-style-type: none"> <li>➤ Upon successful completion of this program, students will be prepared for an entry level HVAC technician position AND to advance their technical education.</li> <li>➤ Students are offered the opportunity to acquire the technical knowledge and skills involved in installing, repairing, trouble shooting, and maintaining heating, ventilation, and refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.</li> <li>➤ Students are offered the opportunity to learn pipe threading, A/C charging, boiler/piping installation, gas installation, blue print reading, AND how to use technical manuals.</li> <li>➤ Students are instructed on how to connect heating or air conditioning equipment to fuel, water, or refrigerant source to form a complete circuit.</li> <li>➤ Students are taught the required safety practices and procedures, AND can earn certifications.</li> </ul>	
<b>PROGRAM SAFETY REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>• LADDER SAFETY</li> <li>• IMPULSE CONTROL/SELF-CONTROL</li> <li>• ABILITY TO REMAIN IN WORK AREA &amp; WITH WORK PARTNER</li> <li>• CHEMICAL SAFETY</li> <li>• MAINTENANCE OF CLEAN, ORGANIZED, CLUTTER-FREE WORK AREA.</li> <li>• SAFETY SHOES, HARD HATS, SAFETY GLASSES, HEAVY WORK BOOTS, SAFETY GLOVES</li> </ul>
<b>APTITUDES, ABILITIES/SKILLS</b>	<ul style="list-style-type: none"> <li>• REASONING</li> <li>• IDENTIFY A PROBLEM &amp; FIGURE OUT THE BEST WAY TO SOLVE IT=PROBLEM SOLVING ABILITIES</li> <li>• GOOD LISTENING SKILLS</li> <li>• COMMUNICATE IN A COOPERATIVE MANNER WHEN SPEAKING WITH CUSTOMERS, COLLEAGUES, EMPLOYERS</li> <li>• COMFORTABLE AND ABILITY TO SPEAK BY PHONE WITH CUSTOMERS</li> <li>• INDEPENDENCE</li> <li>• DEPENDABLE</li> <li>• INNOVATIVE</li> <li>• PAY CLOSE ATTENTION TO DETAILS</li> <li>• PERSISTENCE</li> <li>• SELF-CONTROL</li> <li>• ABILITY TO RECEIVE, UNDERSTAND INFORMATION, AND APPLY IT TO WORK ON HVAC SYSTEMS, SAFELY.</li> </ul>
<b>ACADEMIC SKILLS</b>  <b>READING</b>	<ul style="list-style-type: none"> <li>• TEXT BOOK READING LEVEL 11<sup>th</sup> GRADE</li> <li>• GOOD READING COMPREHENSION SKILLS</li> <li>• TEACHER-MADE PRESENTATIONS, ONLINE MATERIALS AND</li> </ul>

**CCTI****Essential Skills Chart****Heating, Ventilation, Air Conditioning (HVAC)**

<b>MATH SCIENCE</b>	<p>RESOURCES ARE USED</p> <ul style="list-style-type: none"><li>• WRITING SKILLS</li><li>• CALCULATE &amp; ESTIMATE COSTS</li><li>• UNIT OF MEASUREMENT CONVERSIONS</li><li>• UNDERSTANDING OF ALGEBRA I CONCEPTS</li><li>• DEMONSTRATE PROBLEM SOLVING SKILLS</li><li>• READING/STUDYING BLUEPRINTS</li><li>• UNDERSTANDING OF WORD PROCESSING SOFTWARE</li><li>• PHYSICS</li><li>• CHEMISTRY</li></ul>
<b>PHYSICAL REQUIREMENTS</b>	<ul style="list-style-type: none"><li>• ABILITY TO CROUCH, STRETCH, REACH ACROSS FOR EXTENDED PERIODS OF TIME</li><li>• ABLE TO TOLERATE HEIGHTS AND CLIMB AND REMAIN ON A LADDER FOR EXTENDED PERIODS OF TIME</li><li>• ABLE TO TOLERATE GETTING DIRTY</li><li>• KEEP YOUR ARMS AND HANDS STEADY, AND MAINTAIN A POSITION.</li><li>• ABILITY TO LIFT HEAVY OBJECTS (50 LBS+)</li><li>• PUT TOGETHER SMALL PARTS WITH YOUR FINGERS</li></ul>
<b>SOFT SKILLS</b>	<ul style="list-style-type: none"><li>• COOPERATE &amp; COMMUNICATE WITH OTHERS</li><li>• ABILITY TO WORK WITH OTHERS TO SHARE IDEAS AND SOLVE PROBLEMS TOGETHER</li><li>• USE TIME WISELY</li><li>• CONDUCT ONESELF MATURELY</li><li>• ACCEPT DIRECTIVES &amp; CONSTRUCTIVE CRITICISM</li></ul>
<b>CLASSROOM ASSIGNMENTS, ASSESSMENTS &amp; TASKS</b>	<ul style="list-style-type: none"><li>• CLASSWORK/HOMEWORK</li><li>• TEACHER MADE TESTS/QUIZZES</li><li>• PROJECTS</li><li>• LAB TASK COMPLETION</li><li>• WORK ETHIC/PERFORMANCE</li><li>• TIME CARDS/JOURNALS</li><li>• UNIT CHECKS (VERBAL AND WRITTEN)</li><li>• CERTIFICATION MODULES COMPLETION AND ATTAINMENT</li><li>• NOCTI (END OF 12<sup>TH</sup> GRADE)</li><li>• BENCHMARK ASSESSMENTS (PRE-NOCTI)</li><li>• TASK LIST- PROGRAM OF STUDY</li></ul>
<b>INDUSTRY CERTIFICATIONS</b>	<ul style="list-style-type: none"><li>• OSHA Certification</li><li>• CERTIFICATION CONSTRUCTION</li><li>• 608 EPA CERTIFICATION</li><li>• GAS TITE</li><li>• NOCTI</li></ul>

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	<ul style="list-style-type: none"><li>• LADDER CERTIFICATION</li></ul>
<b>PROGRAM UNIFORM/COSTS/MATERIALS</b>	<ul style="list-style-type: none"><li>• SAFETY GLASSES (1 PAIR PROVIDED)</li><li>• WORK SHIRT (1 PROVIDED; ADDITIONAL SHIRTS= \$20)</li><li>• JEANS OR WORK PANTS- \$20+</li><li>• HIGH TOP STEEL TOE WORK BOOTS (\$50+)</li></ul>
<b>ARTICULATION AGREEMENTS</b>	<ul style="list-style-type: none"><li>• LCCC</li></ul>
<b>COOPERATIVE OPPORTUNITIES</b>	<ul style="list-style-type: none"><li>• BASED ON JOB AVAILABILITY, TEACHER RECOMMENDATION, GRADES OF 77% AND HIGHER, GOOD ATTENDANCE, GOOD BEHAVIOR, DRIVER'S LICENSE AND OWN TRANSPORTATION</li><li>• R.F. OHL</li><li>• ANDREAS PLUMBING</li></ul>
<b>EMPLOYMENT OUTLOOK &amp; PROJECTED SALARY</b>	<ul style="list-style-type: none"><li>• OPPORTUNITIES: HVAC MECHANIC, REFRIGERATION MECHANIC, PIPE FITTER, CONSTRUCTION LABORERS, SERVICE TECHNICIAN</li><li>• (40 hour work week minimum= \$48, 630 (annual average medium)</li><li>• Overtime and irregular hours should be expected.</li></ul>
<b>How to find out more?</b>	<ul style="list-style-type: none"><li>• <a href="https://www.onetonline.org">https://www.onetonline.org</a></li><li>• <a href="http://www.carboncti.org">www.carboncti.org</a></li><li>• <a href="https://youtu.be/WLieqCGHUzs">https://youtu.be/WLieqCGHUzs</a></li><li>• <a href="https://www.mynextmove.org/profile/summary/49-9021.00">https://www.mynextmove.org/profile/summary/49-9021.00</a></li><li>• <a href="#">Northampton County Area Community College</a></li><li>• <a href="#">Lehigh Carbon Community College</a></li><li>• <a href="https://stevenscollege.edu/">https://stevenscollege.edu/</a></li></ul>