|  |  |
| --- | --- |
| **HVAC**  **47.0201** | |
| **Objective of Technical Education-**   * Upon successful completion of this program, students will be prepared for an entry level HVAC technician position AND to advance their technical education. * 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. * 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. * Students are instructed on how to connect heating or air conditioning equipment to fuel, water, or refrigerant source to form a complete circuit. * Students are taught the required safety practices and procedures, AND can earn certifications. | |
| **PROGRAM SAFETY REQUIREMENTS** | * LADDER SAFETY * IMPULSE CONTROL/SELF-CONTROL * ABILITY TO REMAIN IN WORK AREA & WITH WORK PARTNER * CHEMICAL SAFETY * MAINTENANCE OF CLEAN, ORGANIZED, CLUTTER-FREE WORK AREA. * SAFETY SHOES, HARD HATS, SAFETY GLASSES, HEAVY WORK BOOTS, SAFETY GLOVES |
| **APTITUDES, ABILITIES/SKILLS** | * REASONING * IDENTIFY A PROBLEM & FIGURE OUT THE BEST WAY TO SOLVE IT=PROBLEM SOLVING ABILITIES * GOOD LISTENING SKILLS * COMMUNICATE IN A COOPERATIVE MANNER WHEN SPEAKING WITH CUSTOMERS, COLLEAGUES, EMPLOYERS * COMFORTABLE AND ABILITY TO SPEAK BY PHONE WITH CUSTOMERS * INDEPENDENCE * DEPENDABLE * INNOVATIVE * PAY CLOSE ATTENTION TO DETAILS * PERSISTENCE * SELF-CONTROL * ABILITY TO RECEIVE, UNDERSTAND INFORMATION, AND APPLY IT TO WORK ON HVAC SYSTEMS, SAFELY. |
| **ACADEMIC SKILLS**  **READING**  **MATH**  **SCIENCE** | * TEXT BOOK READING LEVEL 11th GRADE * GOOD READING COMPREHENSION SKILLS * TEACHER-MADE PRESENTATIONS, ONLINE MATERIALS AND RESOURCES ARE USED * WRITING SKILLS * CALCULATE & ESTIMATE COSTS * UNIT OF MEASUREMENT CONVERSIONS * UNDERSTANDING OF ALGEBRA I CONCEPTS * DEMONSTRATE PROBLEM SOLVING SKILLS * READING/STUDYING BLUEPRINTS * UNDERSTADNING OF WORD PROCESSIGN SOFTWARE * PHYSICS * CHEMISTRY |
| **PHYSICAL REQUIREMENTS** | * ABILITY TO CROUCH, STRETCH, REACH ACROSS FOR EXTENDED PERIODS OF TIME * ABLE TO TOLERATE HEIGHTS AND CLIMB AND REMAIN ON A LADDER FOR EXTENDED PERIODS OF TIME * ABLE TO TOLERATE GETTING DIRTY * KEEP YOUR ARMS AND HANDS STEADY, AND MAINTAIN A POSITION. * ABILITY TO LIFT HEAVY OBJECTS (50 LBS+) * PUT TOGETHER SMALL PARTS WITH YOUR FINGERS |
| **SOFT SKILLS** | * COOPERATE & COMMUNICATE WITH OTHERS * ABILITY TO WORK WITH OTHERS TO SHARE IDEAS AND SOLVE PROBLEMS TOGETHER * USE TIME WISELY * CONDUCT ONESELF MATURELY * ACCEPT DIRECTIVES & CONSTRUCTIVE CRITICSM |
| **CLASSROOM ASSIGNMENTS,**  **ASSESSMENTS & TASKS** | * CLASSWORK/HOMEWORK * TEACHER MADE TESTS/QUIZZES * PROJECTS * LAB TASK COMPLETION * WORK ETHIC/PERFORMANCE * TIME CARDS/JOURNALS * UNIT CHECKS (VERBAL AND WRITTEN) * CERTIFICATION MODULES COMPLETION AND ATTAINMENT * NOCTI (END OF 12TH GRADE) * BENCHMARK ASSESSMENTS (PRE-NOCTI) * TASK LIST- PROGRAM OF STUDY |
| **INDUSTRY CERTIFICATIONS** | * OSHA Certification * CERTIFICATION CONSTRUCTION * 608 EPA CERTIFICATION * GAS TITE * NOCTI * LADDER CERTIFICATION |
| **PROGRAM UNIFORM/COSTS/MATERIALS** | * SAFETY GLASSES (1 PAIR PROVIDED) * WORK SHIRT (1 PROVIDED; ADDITIONAL SHIRTS= $20) * JEANS OR WORK PANTS- $20+ * HIGH TOP STEEL TOE WORK BOOTS ($50+) |
| **ARTICULATION AGREEMENTS** | * LCCC |
| **COOPERATIVE OPPORTUNITIES** | * BASED ON JOB AVAILABILITY, TEACHER RECOMMENDATION, GRADES OF 77% AND HIGHER, GOOD ATTENDANCE, GOOD BEHAVIOR, DRIVER’S LICENSE AND OWN TRANSPORTATION * R.F. OHL * ANDREAS PLUMBING |
| **EMPLOYMENT OUTLOOK & PROJECTED SALARY** | * OPPORTUNITIES: HVAC MECHANIC, REFRIGERATION MECHANIC, PIPE FITTER, CONSTRUCTION LABORERS, SERVICE TECHNICIAN * (40 hour work week minimum= $48, 630 (annual average medium) * Overtime and irregular hours should be expected. |
| **How to find out more?** | * https://www.onetonline.org * [www.carboncti.org](http://www.carboncti.org) * <https://youtu.be/WLiegCGHUzs> * <https://www.mynextmove.org/profile/summary/49-9021.00> * [Northampton County Area Community College](http://www.northampton.edu/) * [Lehigh Carbon Community College](http://www.lccc.edu/) * <https://stevenscollege.edu/> |