

## HVAC – RESIDENTIAL

### Certificate of Completion

24 credit hours

The courses and certificate program in Residential HVAC prepare students for entry-level careers in the HVAC field. Students should complete the Construction Trades Core certificate before continuing with this certificate program. During the course of study, students will be expected to complete a job shadow during the first semester and a 120-hour HVAC-related hands-on practicum during a later semester. Students who successfully complete this course of study will be able to:

- Practice professional behavior on the construction site.
- Receive their universal EPA certification during the first semester.
- Demonstrate working knowledge of heat theory and temperature, pressure, and volume gas laws as they relate to the refrigeration cycle.
- Identify and demonstrate heat transfer effects and the refrigeration process including proper installation of relevant equipment and tubing
- Demonstrate working knowledge and practical application of electrical theory, generation and distribution, OHM's Law, circuits, and fundamentals of AC/DC as they relate to the construction trades.
- Conduct preventative maintenance, service, and repairs common to evaporative coolers, refrigerated air conditioning systems, and heating systems.

*Any student who is ineligible for state, national, or industry licensure or certification is ineligible for entry into this program.*

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#### Institutional and Related Requirements –

Not applicable

#### Program Requirements – 24 hours

BUSA 1130 – Business Professionalism (3)  
CNST 2998 – Construction Internship (1)  
ELTR 1110 – Basic Electricity and Controls (4)  
MATH 1170 – Technical Math (3)  
HVAC 1111 – EPA Clean Air (1)  
HVAC 1105 – Fundamentals of Refrigeration (4)  
HVAC 1243 – Residential Air Conditioning Systems (4)  
HVAC 1245 – Residential Heating Systems (4)

#### New Mexico General Education Curriculum (NMGEC) –

Not applicable