



HVAC Technician

CURRICULUM

83 Lecture hours

117 Lab hours

200 Total Hours

Curriculum

HVAC 101	Introduction & Safety	Emphasizing key qualities for success in HVAC Careers; Essential Safety Training: Ladders, Lifts, Scaffolds, Confined Space; Back and Fall Protection; Hazard Communication & SDS Sheets; Fire Extinguishers; Lockout/Tagout.	10 lecture hours + 14 lab hours	24 total hours
HVAC 102	Fundamentals & EPA 608 Preparation	HVAC Vocabulary & Thermodynamics; Understanding BTUs and Pressure-Temperature Relationship; Recycle, Recover, Reclaim (EPA 608 Prep).	10 lecture hours + 14 lab hours	24 total hours
HVAC 103	Refrigeration & Heat Exchangers	Refrigeration Cycle Physics; Condensation, Evaporation, Expansion Devices; Heat Exchangers & Types of AC Systems; Hands-On Lab Activities.	9 lecture hours + 15 lab hours	24 total hours
HVAC 104	Electrical Basics	Basic Electrical Theory; Series, Parallel, Ladder Circuits; Multimeter Usage; Testing Electrical Components; Understanding Motors & Safety Devices.	9 lecture hours + 15 lab hours	24 total hours
HVAC 105	Gas Heating Systems	Combustion Basics; Types of Gas-Heating Equipment; Troubleshooting Heat Cycle; Efficiency Standards & Troubleshooting Techniques	9 lecture hours + 15 lab hours	24 total hours
HVAC 106	System Properties & Measurements	Manifold Gauges & Operating Pressures; Vacuum, Evacuation, & Recycle Processes; Air Properties & Flow Calculations; Psychrometric Chart & Heat Measurements.	10 lecture hours+ 14 lab hours	24 total hours
HVAC 107	HVAC Controls & Wiring	Wiring & Control Systems; Zone Systems & Dampers; Wi-Fi Thermostats & Valve Dampers; Motor Starters & Energy Sources.	9 lecture hours + 15 lab hours	24 total hours
HVAC 108	Installation & Maintenance	Brazing & Soldering Techniques; Blueprint Reading & Diagram Interpretation; Thermostat Installation & Wiring; Air Ducts, Vents, Fans, & Pumps; Maintenance Practices & Troubleshooting	9 lecture hours + 15 lab hours	24 total hours
CSA 101	Career Service Assistance & Job Search	Career Service Assistance & Job Search	8 lecture hours + 0 lab hours	8 total hours