

HVAC: Student Learning Outcomes

Upon successful completion of the HVAC Technology program, students will be able to:

1. Demonstrate knowledge of refrigeration principles, heat transfer theory, and the refrigeration cycle.
2. Safely handle refrigerants and comply with EPA regulations regarding refrigerant recovery, recycling, and reclamation.
3. Interpret and analyze HVAC electrical schematics, wiring diagrams, and control circuits.
4. Apply Ohm's Law and electrical troubleshooting techniques to diagnose HVAC system malfunctions.
5. Install, service, and repair residential air conditioning and heating systems.
6. Diagnose and troubleshoot electrical, mechanical, and refrigeration-related system failures using industry-standard testing equipment.
7. Perform startup, charging, and performance testing procedures on HVAC systems.
8. Install refrigerant piping, condensate drainage systems, and air cleaning equipment according to industry standards.
9. Design residential HVAC systems using heat gain and heat loss calculations, equipment selection, and air distribution balancing methods.
10. Demonstrate professionalism, safety awareness, and technical competency required for employment in the HVAC/R industry.