



Elevate Skilled Trade Summit: HVAC Technician

Curriculum Breakdown



Learning Outcomes

By the end of the program, students will be able to:

1. **Demonstrate foundational HVAC knowledge** – Identify system components, functions, and safety practices. (Cognitive)
2. **Apply workplace safety standards** – Complete OSHA 10 training and implement safety-first practices. (Cognitive + Affective)
3. **Perform basic electrical troubleshooting** – Apply knowledge of circuits, controls, and wiring diagrams. (Cognitive + Psychomotor)
4. **Explain refrigeration principles** – Understand heat transfer, refrigerants, and charging procedures. (Cognitive)
5. **Conduct HVAC maintenance tasks** – Perform inspections, preventive maintenance, and basic repairs. (Psychomotor)
6. **Troubleshoot HVAC systems** – Diagnose common issues with compressors, furnaces, and thermostats. (Cognitive + Psychomotor)
7. **Prepare for industry certifications** – Sit for EPA Section 608 and NATE Ready to Work exams. (Cognitive)
10. **Demonstrate career readiness** – Exhibit professionalism, communication, and employability skills. (Affective)



Weekly Academic Outline (6 Weeks) Total Hours: 110

Week	Topics & Modules	Hours	Outcomes	Assessment
Week 1	Intro to HVAC, Components, Tools, Measurements	15	LO 1	Knowledge Check
Week 2	OSHA 10 Training (PPE, Hazard Communication, Safety Practices)	15	LO 2	OSHA 10 Completion
Week 3	Electrical for HVAC (Circuits, Motors, Controls)	20	LO 3	Skill Demonstration
Week 4	Refrigeration Principles, Evacuation & Charging	20	LO 4	Lab Simulation
Week 5	HVAC Troubleshooting, Gas & Electric Furnace Simulations	20	LO 5, LO 6	Practical Assessment
Week 6	EPA Section 608 Prep, NATE Ready to Work, Career Readiness	20	LO 7, LO 8	Final Exam + Certification Prep

Assessment & Grading

- Knowledge Checks: 20%
- Skill Demonstrations: 30%
- Summative Assessments (Final Exams, Practical Demonstrations): 40%
- Attendance & Participation: 10% Passing Requirement: 70% minimum





Welcome to the Syllabus

Curriculum Map (Outcomes → Modules → Assessments → Compliance)

Learning Outcome	Module(s)	Assessment	Accreditor Domain
LO 1: Demonstrate foundational HVAC knowledge	Week 1 (Intro, Components, Tools)	Knowledge Check	Cognitive
LO 2: Apply workplace safety standards	Week 2 (OSHA 10)	OSHA 10 Completion	Cognitive + Affective
LO 3: Perform basic electrical troubleshooting	Week 3 (Electrical for HVAC)	Skill Demonstration	Cognitive + Psychomotor
LO 4: Explain refrigeration principles	Week 4 (Refrigeration, Charging)	Lab Simulation	Cognitive

Learning Outcome	Module(s)	Assessment	Accreditor Domain
LO 5: Conduct HVAC maintenance tasks	Week 5 (Maintenance, Troubleshooting)	Practical Assessment	Psychomotor
LO 6: Troubleshoot HVAC systems	Week 5 (Gas & Electric Furnace Sims)	Practical Assessment	Cognitive + Psychomotor
LO 7: Prepare for industry certifications	Week 6 (EPA 608, NATE Ready to Work)	Final Exam + Certification Prep	Cognitive
LO 8: Demonstrate career readiness	Week 6 (Career Skills)	Participation + Final Review	Affective

Curriculum Map (Outcomes → Modules → Assessments → Compliance)

- Registrar: Maintains accurate records of instructional hours via LMS reporting.
- Assessment Lead / Faculty: Ensure outcomes are mapped to Elevate standards and accreditor definitions.
- Compliance Signatory: CEO (Norman Rodriguez) ensures institutional accountability.
- Completion Requirement: All modules, assessments, and certifications completed within 12 months.