

Heating, Ventilation, Air Conditioning & Refrigeration Technology

The Heating, Ventilation, Air Conditioning & Refrigeration Technology program is an individual program that prepares students to work in a variety of jobs in the field of air conditioning and refrigeration. Students are prepared to troubleshoot, repair, and maintain residential and commercial refrigeration; air conditioning; heat pumps; humidifiers; and electrical and gas heating. Students also learn the fundamentals of electricity, electric motors, and controls. Graduates of the program will be able to install and braze refrigeration tubing, diagnose electrical problems; install duct systems; repair light commercial equipment; recover air conditioning and refrigeration refrigerants; locate and repair leaks.

Program/Location	Length	Days	Time
ACHEC and Knoxville Campus Day	16 Months	Monday—Friday	8:00 am—2:30 pm
Knoxville Campus Evening	16 Months	Monday—Friday	3:30 pm—10:00 pm

Curriculum/Courses

HVA 0001	Worker Characteristic
HVA 1010	Technology Foundations
HVA 1020	OSHA
HVA 1030	Shop Safety
HVA 1040	Refrigeration Fundamentals
HVA 1050	Tools Equip & Shop Practices
HVA 1060	Electricity and Controls I
HVA 1070	Installation
HVA 1080	Green Awareness
HVA 1090	Employment Readiness Exam
HVA 0002	Worker Characteristic
HVA 2010	Introduction to System Service
HVA 2020	Basic Automatic Controls
HVA 2030	Motors
HVA 2040	Domestic Appliances
HVA 2050	EPA
HVA 2060	Employment Readiness Exam
HVA 0003	Worker Characteristic
HVA 3010	Gas Electric and Heat
HVA 3020	Air Conditioning (Cooling)
HVA 3030	Heat Pumps
HVA 3040	Carbon Monoxide

HVA 3050	All Weather Systems Exam
HVA 0004	Worker Characteristic
HVA 4010	Electricity and Controls II
HVA 4020	Commercial Refrigeration
HVA 4030	Employment Readiness Exam

Completion Awards

		Required Hours
HVAC Mechanic Assistant	Certificate	432
Domestic Unit Repair	Certificate	864
Heating, Ventilation, and Air Conditioning Technician	Diploma	1296
Heating, Ventilation, Air Conditioning and Refrigeration Technician	Diploma	1728

Completion Rate 2021: 85%

Placement Rate 2021: 96%

HOW TO APPLY

All Documents Must be Presented Together to Apply

- ⇒ Complete the **Free Application For Federal Student Aid (FAFSA)** online – the website is www.studentaid.gov and our school code is 004025.
- ⇒ Complete **TCAT Knoxville Application for Enrollment** online at www.tcatknoxville.edu and select **APPLY NOW**