



## Heating, Ventilation, Air Conditioning, & Refrigeration Technology

The HVAC & R 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
Day Program/ Knoxville Campus	16 Months	Monday-Friday	8:00am—2:30 pm
Night Program/Knoxville Campus	16 Months	Monday-Friday	3:30 pm—10:00 pm
Day Program/Strawberry Plains	16 Months	Monday-Friday	8:00am—2:30 pm

### Curriculum/Courses

		Completion Award	Required Hours
HVA 0001	Worker Characteristic		
HVA 1010	Technology Foundations	HVAC Mechanic Assistant	Certificate 432
HVA 1020	OSHA		
HVA 1030	Shop Safety	Domestic Unit Repair	Certificate 864
HVA 1040	Refrigeration Fundamentals	Heating, Ventilation, and Air	Diploma 1296
HVA 1050	Tools Equip & Shop Practices	Conditioning Technician	
HVA 1060	Electricity and Controls I		
HVA 1070	Installation	Heating, Ventilation, Air	Diploma 1728
HVA 1080	Green Awareness	Conditioning and Refrigeration	
HVA 1090	Employment Readiness Exam	Technician	
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		

### HOW TO APPLY

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