

www.tcatknoxville.edu

## 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

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
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

Curriculum/Cources

Completion Award		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

## **HOW TO APPLY**

All Documents Must be Presented Together to Apply

- 1. Complete the Free Application For Federal Student Aid (FAFSA) online the website is <a href="www.fafsa.ed.gov">www.fafsa.ed.gov</a> and our school code is 004025.
- 2. Complete TCAT Application for Enrollment (Form is Attached)



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

Book, Tool, and Supply List

For the most current pricing available please reference the bookstore at http://www.pstccbooks.com/ (Please Select Division Campus and TCATK term to see books available.)

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1st Trimester		
Tuition	Cost	Total
Tuition*	\$1,169.00	
Technology Access Fee*	\$ 67.00	
Student Activity Fee*	\$ 10.00	
OSHA 10 Training	\$ 25.00	
TOTAL		\$1,271.00

Book	ISBN	Cost	Required	
Bundle: Refrigeration & Air Conditioning Technology, 8th	9781305720817	\$ 272.00		
Refrigeration & Air Conditioning Technology, 7th (part of bundle above)	9781111644475		х	
Lab Manual for Refrig, 7th with access code (part of bundle above)	9781111644581		х	
Lab Manual for Refrigeration & Air Conditioning (part of bundle above)	9781111644475		х	
Internet Companion for 2 yrs (part of the bundle)	no isbn		х	
EPA Cert Prep Manual for Air Conditioning & Refrigeration	9781930044005	\$ 18.00	х	
Electrical Theory & Application for HVACR	9781930044326	\$ 40.00	х	
TOTAL				\$330.00

Supplies	Needed By	Cost	Required	
Dark Blue Denim Jeans	First day of class	\$ 35.00	х	
2 Light Blue Short Sleeve Work Shirts	First day of class	\$ 44.00	х	
1 Light Blue Long Sleeve Work Shirt	First day of class	\$ 25.00	х	
1 Dark Blue Service Jacket	First day of class	\$ 40.00	х	
Black Belt	First day of class	\$ 20.00	х	
Steel Toe Work Boots	First day of class	\$ 140.00	х	
1 Pair Leather Work Gloves	First day of class	\$ 20.00	х	
Safety Glasses	First day of class	\$ 10.00	х	
USB Flash Drive 4 GB	First day of class	\$ 12.00	х	
TOTAL				\$346.00

Tools	Needed By	Cost	Required	
2-1" Digital Type Thermometer Pocket	First day of class		х	
2 Adjustable Wrenches (1-6" & 1-8")	First day of class		х	
2 Long Hex Key Sets 6" & 8" Length	First day of class		х	
1 Refrigeration Ratchet Wrench	First day of class		х	
1 Refrigeration Ratchet Hex Key Adapter	First day of class		х	
Refrigerant Hose 1/4"	First day of class		х	
3 Phillips Type Screwdriver #3, #4, #6	First day of class		х	
3 Blade Type Screwdriver #4, #6, #8	First day of class		х	
1 Set of 3 Low Loss Ball Valve Fitting	First day of class		х	
1 Set of Digital or Analog Manifold Gauges for Both R-22 & R410A	First day of class		х	
Combination Wrench Set 1/4" & 7/8"	First day of class		х	
Combination Wrench Set Metric #5 - #15	First day of class		х	
Flaring Block	First day of class		х	
Clamp-on Amp Meter w Voltage, Resistance Capacitance & Temp	First day of class		х	
Tubing Cutter for Copper Tube 1/8" x 1"	First day of class		х	
1/4 Drive Socket Set 1/8"-1/2" Combination Metric & Standard	First day of class		х	
3/8 Drive Socket Set 3/8"-1" Combination Metric & Standard	First day of class		х	
Swaging Tool Set 1/4", 3/8", 1/2", 5/8"	First day of class		х	
Tool Bag	First day of class		х	
10" Channellock Pliers	First day of class		х	
Wire Crimp Pliers	First day of class		х	

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Diagonal Cutting Pliers	First day of class	X
SAE Nut Driver Set	First day of class	X
6" Straight Pliers	First day of class	Х
16' Steel Tape Measure	First day of class	X
12 Ounce Ball Peen Hammer	First day of class	x
Small Flashlight	First day of class	Х
Scrader Core Removal Tool	First day of class	X
Lineman Electrical Pliers	First day of class	Х
Needle Nose Pliers 6" Length	First day of class	x
Wire Stripper Pliers with Cutter	First day of class	x
Inspection Mirror	First day of class	x
Small Tubing Benders for 1/4", 3/8", & 1/2"	First day of class	X
Mega Ohmmeter	First day of class	x
TOTAL		\$1,745.0
Exam Cost	Cos	st
Preventative Maintenance Technician Certification	\$ 20	0.00
Green Technician Certification		0.00
TOTAL	<u>,                                     </u>	\$40.0
101/12		γ-1010·
0.17		
2nd Trimester		
Tuition	Cos	st Total
Tuition*	\$1,169	9.00
Technology Access Fee*	\$ 67	7.00
Student Activity Fee*	\$ 10	0.00
TOTAL	,	\$1,246.0
		<b>4-1</b> -1010
Exam Cost	Cos	st
EPA 608 Exam		5.00
EPA 410a Certification		0.00
TOTAL	, 20	\$45.0
TOTAL		Ş43.U
0.1=1		
3rd Trimester		
Tuition	Cos	st Total
Tuition*	\$1,169	9.00
Technology Access Fee*	\$ 67	7.00
Student Activity Fee*		0.00
TOTAL	,	\$1,246.0
1017/2		<b>\$1,240.0</b>
Exam Cost	Cos	ct
Electrical Employment Readiness Exam	\$ 15	
Air Conditioning Employment Readiness Exam	\$ 15	
Heat Pump Employment Readiness Exam	\$ 15	5.00
TOTAL		\$45.0
4th Trimester		
Tuition	Cos	st Total
Tuition*	\$1,169	
Technology Access Fee*		7.00
Student Activity Fee*		0.00
TOTAL	Ş I(	\$1,246.0
ICIAL		71,240.00
Exam Cost	Cos	ct
Air Conditioning Employment Readiness Exam		
		5.00
Heat Employment Readiness Exam		5.00
Electrical Employment Readiness Exam	\$ 15	5.00
TOTAL		\$45.00
Miscelleanous Cost	Cos	
Graduation Supplies	\$ 40	0.00 x
TOTAL		\$ 40.00
TOTAL PROGRAM COST		\$7,645.00



## **ENROLLMENT APPLICATION**

Applicants must complete every item on this form, sign and date and return it to the College.

	Full Legal Name					
	Last	First		Middle		
	Address		City			
	County	State Zip	Email	Address		
	- '-	/		Gender: M F		
o	Social Security	Date of Birth	Age			
Personal Information	Marital Status:Married _					
nal In	Race: Do you consider yourself Select one or more of the follow	·		No		
ırso		ativeNative Hawaiia				
Pe	Asian	White				
	Black or African American					
	Citizenship status:US Citize	en or US National US Du	al Citizen US Perm	nanent Resident or RefugeeOther		
	US Forces Status:Currently ServingPreviously ServingCurrent DependentN/A					
	ALL MALES 18 OR OLDER MUST Not required to registered	be registered with Selective S RegisteredRequired t	-			
>	Education (insert highest level	of education completed):				
Prior Education/ Training	Name of last high school attend	ded:				
r Educati Training	High school graduation date (m	ım/yyyy): G	ED Diploma Date			
Prior	Are you seeking credit for pr	ior education, training or w	ork experience?	_YesNo		
٤	Please review the campuses we Office Technology)	ebsite and provide the progran	n name choice for care	er training (Example: Administration		
Program	When will you be available to e		pringSummer			
		<del></del>				

state civil rights law with respect to all employment, programs and activities sponsored by the TCATs.



OFFICE USE ONLY
ADMISSIONS REQUIREMENTS    FAFSA
SPECIAL ADMISSIONS REQUIREMENTS  Cosmetology:  Photo Proof of Age Copy of SS Card RT/LT Handed Manicuring Only
Dental Assisting, Medical Assisting, and Surgical Technology  HESI scores: Math 70 and Reading 70   Compass scores: Math 30 and Reading 70  HESI   ACT   Compass Scores: Math Reading (Date: )  CPR Documentation (BLS for Healthcare Providers)  Educational Transcripts Immunizations
Medical Office Information Technology  Educational Transcripts
Practical Nursing:  HESI required scores: Math 70 and Reading 70   Compass scores: Math 50 and Reading 80  Notarized Declaration of Citizenship Copy of ID Used to Declare Citizenship  CPR Documentation (BLS for Healthcare Providers)  Educational Transcripts Immunizations  HESI   ACT   Compass Scores: Math Reading (Date: )
Truck Driving:  MVR DOT Physical Valid Driver's License U.S. Citizenship / Residency
Staff Signature:  Date:

Revised: 8/16/17