



GET COOL TRAINING  
FOR A HOT CAREER

# Heating, Ventilation & Air Conditioning (HVAC)

**WASHBURN TECH**  
UNIVERSITY

[CONSTRUCTION]

Self-starters who enjoy new challenges will quickly warm up to a career in climate and energy control technologies, traditionally known as HVAC training. Washburn Tech will give you the knowledge and skills to repair, service and maintain heating and cooling systems both in large commercial and residential settings.

## LEARNING AT WASHBURN TECH

The program operates out of the Midwest Training Center (MTC), a state-of-the-art facility on our main campus. Through partnerships with Trane USA, Snap-On Tools, and the National Coalition of Certification Centers, we train you in the areas of electricity, heating, residential air conditioning, refrigeration, sheet metal fabrication, direct digital controls (DDC) and commercial HVAC applications. You can leave with industry credentialing in the areas of refrigerant handling safety, tool usage and control systems. Foundational skills and principles learned in this program prepare you to work in the commercial and residential HVAC market place. Students have the option of completing a 24-credit-hour Cert A that focuses on residential HVAC, 48-credit-hour Cert C that includes coursework in commercial HVAC, or an Associate of Applied Science (AAS) degree.

## JOB AND SALARY OUTLOOK

Employment in this field is projected to grow by

5 percent from 2020 to 2030, with the growing number of sophisticated climate-control systems expected to increase demand for qualified HVAC technicians. According to the Kansas Department of Labor, the average salary for an entry-level HVAC position is \$19.79 or \$41,155 annually. The average wage is \$26.64 an hour or \$55,412 annually.

## ENTRY REQUIREMENTS

For dual-credit high school students submission of an application, official partial transcript, and consent to enroll form are required. Adult students must complete an application and submit an official copy of all transcripts. Please see an admissions counselor for details.

## CERTIFICATIONS

+ EPA 608; OSHA-10 Construction; Low GWP Refrigerant Safety; NCCER Core; NCCER HVAC Level 1; NCCER HVAC Level 2 (Cert C)

**Build your  
best self.**

TALK TO AN ADMISSIONS  
COUNSELOR TODAY!

**785.670.2200**

## CAREERS IN HVAC »

- + residential
- + commercial
- + industrial
- + sales
- + solar technician
- + wind turbine tech
- + systems designer
- + service manager



## COURSE DESCRIPTIONS

### CERT A COURSES (24 HOURS):

#### INTRODUCTION TO HVACR

Overview of the HVAC industry, career pathways, hand tools, power tools and general construction safety

#### ELECTRICAL FUNDAMENTALS

Covers basic electrical theory for DC and AC systems

#### HEATING SYSTEM FUNDAMENTALS

Covers combustion and how it is applied in HVAC trade

#### WORKPLACE SKILLS

Topics include listening skills, oral communication, human relations, decision making/problem solving, how to work as a team, time and resource management

#### HVAC FUNDAMENTALS

Gain skills in soldering and brazing, and demonstrate learned skills to service and repair AC systems

#### EPA 608

Students will be certified in federal regulations of safe refrigerant handling practices

#### HVAC INSTALLATION

Students will learn installation practices according to manufacturers' recommendations and local code

#### HVAC SERVICES AND DIAGNOSTICS

Students will learn the different types of compressors used, proper preventative maintenance practices, and how to diagnose faults

### CERT C COURSES (48 HOURS TOTAL):

#### INTRO MECHANICAL REFRIGERATION

Apply knowledge previously learned to ice machines, refrigerators and commercial coolers.

#### HEAT PUMPS & VRF

Gain an understanding of how these systems function, proper installation considerations, how to maintain and troubleshoot heat pump and VRF systems

#### COMMERCIAL HVAC LEVEL I

Introduce students to the commercial applications of various HVAC systems

#### COMMERCIAL HVAC LEVEL II

Continues the intro to commercial HVAC systems. Students will also have the opportunity to participate in on-the-job training.

## APPLICATION CHECKLIST



**SUBMIT  
APPLICATION**



**MEET WITH  
ADMISSIONS**



**SUBMIT  
TRANSCRIPT(S)**



**ENROLL IN  
CLASSES**

### 2024-2025 PROGRAM COSTS - CERT A (Estimated)

	HIGH SCHOOL	ADULT
Tuition	*\$330	\$3,960
All other fees	\$169	\$3,255
<b>TOTAL</b>	<b>\$499</b>	<b>\$7,215</b>

\*Tiered courses are paid by Excel in CTE. Non-tiered courses are paid by the student.

### ADDITIONAL CHARGES (Estimated)

	HIGH SCHOOL	ADULT
Tools/Books	\$0	\$0

### 2024-2025 PROGRAM COSTS - CERT C (Estimated)

	HIGH SCHOOL	ADULT
Tuition	*\$330	\$7,920
All other fees	\$224	\$3,868
<b>TOTAL</b>	<b>\$554</b>	<b>\$11,788</b>

\*Tiered courses are paid by Excel in CTE. Non-tiered courses are paid by the student.

### ADDITIONAL CHARGES (Estimated)

	HIGH SCHOOL	ADULT
Tools/Books	\$0	\$0

The Washburn Tech HVAC program is in alignment with the National Center for Education Statistics (NCES) CIP Code 47.0201: Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician. A program that prepares individuals to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Includes instruction in diagnostic techniques, the use of testing equipment and the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.

### MORE INFO »

**For more programs, enrollment and course schedule information, please contact Admissions. Financial Aid is available to those who qualify.**

**CALL 785.670.2200**

**TO TALK W/ ADMISSIONS COUNSELOR**