CLIMATE & ENERGY CONTROL

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. As emerging technologies hit the marketplace, our graduates are prepared to install and service them.

Learning at Washburn Tech

The program operates out of the Midwest Training Center, a state-of-the-art facility in partnership with Trane, Snap-on and the National Coalition of Certification Centers. You will study electricity, heating, residential air conditioning, refrigeration, sheet metal fabrication, direct digital controls (DDC) and commercial HVAC applications. You can leave with industry credentials in the areas of refrigerant handling safety, tool usage and control systems. Full-day students can finish this program in two semesters while half-day students can complete in four semesters. Upon completion, you will earn a 44-credit-hour technical certificate and be eligible to complete an associate degree or more advanced degrees at Washburn University.

Job and Salary Outlook

The Kansas Governor's office identifies HVAC technicians among the top three most needed technical occupations in the state. In 2015, the average salary for an entry-level HVAC position was $16.22 an hour or $33,728 annually, according to the Kansas Department of Labor. The average wage was $21.59 an hour or $44,907 annually.

Entry Requirements

Students are required to take the ACT WorkKeys and score a 5 in both Reading and Math. Other assessments or college coursework can be accepted in place of WorkKeys. Please see a recruiter for details. You also must complete an application and submit transcripts.

Certifications

- EPA 608
- 410A Safety Certificate
- OSHA 10
- Tool Safety
- Meter Certification
- Building Automation Level I
- HVACR ICE

CONTACT US:
785.670.2200
877.588.7140

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

Washburn University Institute of Technology
5724 SW Huntoon St., Topeka, Kansas 66604 | 785.670.2200 | **washburntech.edu**

CLIMATE & ENERGY CONTROL

Course Descriptions

Workplace Skills: focuses on job skills that lead to a successful career in a student's field of choice

Safety Orientation/OSHA: covers OSHA standards relevant to the construction industry

Electrical Fundamentals: covers basic electrical theory for DC and Alternating Current systems

Electrical Fundamentals II: introduction to motor theory and applications; requires a firm understanding of magnetism and voltage production

Heating System Fundamentals: covers combustion and how it is applied in the HVAC trade

Heating System Fund. II: focuses on the Uniform Mechanical Code in relation to gas piping and exhaust ventilation

Advanced Electrical Theory for HVAC: a continuation of Electrical Fundamentals; places an emphasis on developing systematic diagnosis and troubleshooting methods and procedures that will enable the student to become a highly-skilled, professional HVAC-R service technician

Advanced Heating Systems: introduction to electric furnaces and hydronic heating with an emphasis on the electrical systems and code requirements

Sheet Metal Fabrication I: focuses on sheet metal fabrication utilizing many tools and techniques

Heat Loads and Duct Sizing: teaches students to analyze heat flow characteristics as they study heat loss and heat gain factors pertaining to residential HVAC

HVAC Fundamentals: introduces students to refrigeration theory, piping techniques and service best practices

EPA 608: students will be certified in federal regulations of safe refrigerant handling practices

Intro to Mechan. Refrigeration: students will apply knowledge learned in HVAC Fundamentals to ice machines, refrigerators and commercial coolers

Heat Pumps: students will learn the basic functions of various heat pump design as well as charging and troubleshooting procedures

Commercial HVAC: introduces students to the commercial applications of various HVAC systems; a strong foundation in refrigeration theory is required as well as a comprehensive understanding of system air flow and electrical fundamentals

Commercial HVAC Lab: continues the introduction to Commercial HVAC systems through hands-on training

* A list of required tools/books is on a separate sheet of paper and on our website, WashburnTech.edu. Students also will need to purchase supplies such as (but not limited to) pens/pencils, notebooks/paper, three-ring binder, etc. Students may purchase them at the vendor of their choice.

☑ CHECKLIST

- ☐ Meet with recruiter
- ☐ Take ACT WorkKeys*
- ☐ Submit transcript(s)
- ☐ Pay enrollment fee

*some exceptions apply

TOTAL 2017-2018 PROGRAM COSTS (ESTIMATED) - HIGH SCHOOL	
Enrollment fee	$20
Tuition	FREE
All other fees	$2,801
TOTAL	$2,821
ADDITIONAL ESTIMATED CHARGES	
Tools/Books Estimate*	$568

TOTAL 2017-2018 PROGRAM COSTS (ESTIMATED) - ADULT	
Enrollment fee	$50
Tuition	$5,544
All other fees	$2,801
TOTAL	$8,395
ADDITIONAL ESTIMATED CHARGES	
Tools/Books Estimate*	$568