Learning at Washburn Tech

The program operates out of the Midwest Training Center (MTC), a state-of-the-art facility. Through partnerships with Trane USA, Snap-on, 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 credentials 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. Full-day students can complete this program in three semesters with classes beginning in the summer. Half-day students can complete the program 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 climate and energy control technicians among the top three most needed technical occupations in the state. In neighboring states, job prospects also are excellent, with Missouri placing it on its “Top 25 Hot Jobs” list. In 2013, the average salary for an entry-level HVAC position was $12.36 an hour or $25,707 annually, according to the Kansas Department of Labor. The average wage was $24.11 an hour or $50,142 annually.

Entry Requirements

Students are required to take the ACT WorkKeys and score a minimum of 5 in Reading and 6 in 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 1
- HVACR ICE

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

Washburn Institute of Technology • 5724 SW Huntoon St. • Topeka, Kan. 66604

CONTACT US:
785.228.6315
877.588.7140
WashburnTech.edu
Course Descriptions

**Workplace Skills:** students identify the job skills that lead to a successful career in the field of their choice

**Safety Orientation/OSHA:** an overview of the OSHA standards relevant to the construction industry

**Electrical Fundamentals:** instruction in basic electrical theory for DC and Alternating Current systems

**Electrical Fundamentals II:** introduction to motor theory and motor applications; this course builds on previous knowledge gained in Electrical Fundamentals I and requires a firm understanding of magnetism and voltage production

**Heating System Fundamentals:** give students a firm understanding of combustion and how it is applied in the HVAC trade

**Heating System Fund. II:** designed to walk students thorough the requirements of 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 of those units and code requirements for the safe installation of such equipment

**Sheet Metal Fabrication I:** focuses on sheet metal fabrication utilizing various sheet metal 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 design

**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 Mechanical 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 airflow and electrical fundamentals

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

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**CHECKLIST**

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

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**2014-2015 ESTIMATED COSTS**

*(to complete program)*

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<td>Enrollment fee (hs)</td>
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<td>Tools/Books Estimate*</td>
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*some exceptions apply

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Washburn University prohibits discrimination on the basis of race, color, sex, religion, age, national origin, ancestry, disability, marital or parental status, sexual orientation/gender identity, genetic information, or other non-merit reasons, in University programs and activities, admissions, educational programs or activities, and employment, as required by applicable laws and regulations. The following person has been designated to handle inquiries regarding the non-discrimination policies: Dr. Pamela Foster, Equal Opportunity Director, Washburn University, 1700 SW College Ave, Topeka, Kansas 66621, 785.670.1509, codirector@washburn.edu

*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.*