

## CAREER PROFILE

### **JOB DESCRIPTION**

Works on heating, ventilation, cooling, and refrigeration systems that control the temperature and air quality in buildings.

HVAC technicians:

- Install, clean, and maintain HVACR systems
- Install electrical components and wiring
- Inspect and test HVACR systems and components
- Discuss system problems with customers
- Repair HVAC systems to improve efficiency by changing filters, cleaning ducts, or replacing refrigerant
- Test pipe or tubing joints and connections for leaks
- Recommend maintenance to improve system performance
- Keep records of work performed

### **PAY**

\$57,300 per year (\$27.55 per hour) as of May 2023

### **JOB OUTLOOK**

6% (faster than average), 2022-2032

### **EDUCATION & TRAINING**

An associate degree is typically preferred, but not required. Candidates must pass the North American Technician Excellence (NATE exam). The U.S. Environmental Protection Agency (EPA) also requires all technicians who buy, handle, or work with refrigerants to be certified in proper refrigerant handling.

### **IMPORTANT SKILLS**

- **Customer-service skills**, including punctuality, friendliness, and politeness, even when working with unhappy customers
- **Attention to detail** in order to maintain records of the nature of the work performed, time spent, and specific equipment/parts used
- **Knowledge of the building and construction process**
- **Logic** Ability to use and/or develop a knowledge of electrical circuits and read blueprints and charts
- **Manual Dexterity** Ability for excellent eye and hand coordination
- **Math skills** Ability to solve high school-level algebraic equations, fractions, decimals, etc. in order to calculate correct load requirements to ensure the HVACR equipment properly heats or cools the space required
- **Mechanical skills** to understand the HVAC components and be able to properly assemble, disassemble, and, if needed, program them
- **Physical stamina/strength** for long hours walking, standing and lifting heavy equipment
- **Time-management skills** Ability to keep a schedule and complete all necessary repairs or tasks in a timely manner
- **Troubleshooting skills** Ability to identify and repair problems on malfunctioning heating, air conditioning, and refrigeration systems

## ADDITIONAL RESOURCES

**PHCC Academy Plumbing & HVAC Workforce Readiness Course** - Free on-line course for high school students that provides an introduction to working in the plumbing-heating-cooling industry and helps in making decisions about careers in the construction industry.

[www.phccfoundation.org/foundation/workforce-readiness-course/](http://www.phccfoundation.org/foundation/workforce-readiness-course/)

**Sheet Metal Workers Local 33** <https://smwlu33.org/>

General information from **Cleveland Building and Construction Trades Council** at [www.cbctc.org/](http://www.cbctc.org/)

# CERTIFICATE & DEGREE PROGRAMS

## **ASHTABULA COUNTY TECHNICAL & CAREER CAMPUS**

*Jefferson, OH*

A 300-hour HVAC program covering residential air conditioning, refrigeration, heating, and troubleshooting. Program includes recent legislation regarding environmental control for Freon recovery, safety and laws. Earns college credit through Franklin University. Program certifications include:

- Environmental Protection Agency (EPA) 608 Certification
- Universal Safety R410 Certification
- Ohio Construction Industry Licensing Board (HVAC)

<https://actc.axstudent.com/#/category/W0/program/Qyx>

## **AUBURN CAREER CENTER**

*Concord Twp, OH*

A 600-hour HVAC Workforce Program covering electrical, heating, heat pumps, duct installation, air distribution, hydronics, refrigeration, cooling, and air conditioning. Prepares students for:

- OSHA 10-Hour General Industry Certification
- EPA Section 608, R608 and R410A Certification
- CFC Refrigeration Recovery Certification

[www.auburncc.org/Programs.aspx](http://www.auburncc.org/Programs.aspx)

## **CLEVELAND STATE UNIVERSITY**

*Cleveland, OH*

A four- to six-month online HVAC Technician certification course to prepare students for entry-level HVAC maintenance and repair tasks in residential and commercial environments. Prepares students for:

- Environmental Protection Agency (EPA) 608 Certification
- Core 608 Small Appliances (Type 1) Certification

[www.csuohio.edu2.com/product/5094/hvac-technician](http://www.csuohio.edu2.com/product/5094/hvac-technician)

## **CUYAHOGA COMMUNITY COLLEGE**

*Cleveland, OH*

### **Associate of Applied Science in Industrial Maintenance**

Students learn how to diagnose and maintain HVAC industrial boiler systems

[www.tri-c.edu/programs/engineering-technology/integrated-systems-engineering-technology/index.html](http://www.tri-c.edu/programs/engineering-technology/integrated-systems-engineering-technology/index.html)

## **CUYAHOGA VALLEY CAREER CENTER**

*Brecksville, OH*

This 200-hour HVAC Technician training program emphasizes hands-on activities and problem-solving skills; prepares students for the CFC Section 608 Certification

[www.cvccworks.edu/adult-education/adult-education-programs/hvac/](http://www.cvccworks.edu/adult-education/adult-education-programs/hvac/)

## **FORTIS COLLEGE**

*Cuyahoga Falls/Akron, OH*

A HVAC and Refrigeration program that combines classroom instruction and lab modules to teach prepare student for entry-level HVAC employment. Delivered at a satellite location in Akron; ACCSC accredited.

[www.fortis.edu/campuses/ohio/cuyahoga-falls/hvac.html](http://www.fortis.edu/campuses/ohio/cuyahoga-falls/hvac.html)

## **POLARIS CAREER CENTER**

*Middleburg Hts., OH*

600-hour HVAC/R program (20 weeks-daytime, 36 weeks-evenings). Prepares students for:

- 608 EPA Refrigerant Recovery Universal (Type 1, 2, and 3) Certification
- OSHA 10-Hour Certification
- North American Technician Excellence (NATE) Industry Competency Exam (ICE) - Residential Air Conditioning & Heating Certification
- HC/HFO - Hydrocarbon/Hydrofluoroolefin Certification

[www.polaris.edu/o/pcc/page/hvac](http://www.polaris.edu/o/pcc/page/hvac)