

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 HVAC 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

\$59,810 median annual wage (\$28.75/hour)
as of May 2024

JOB OUTLOOK

8% (much faster than average), 2024-2034

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/ATTRIBUTES

- Customer service skills, including punctuality, friendliness, and politeness, even when working with unhappy customers
- Attention to detail 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. 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 of 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 in malfunctioning heating, air conditioning, and refrigeration systems

CERTIFICATE/TRAINING PROGRAMS

ASHTABULA COUNTY TECHNICAL & CAREER CAMPUS (Jefferson, OH)

HVAC Technician

A 300-hour HVAC Program covering residential air conditioning, refrigeration, heating, and troubleshooting. Earns college credit through Franklin University. Program includes Environmental Protection Agency (EPA) 608 certification.

www.atech.edu/

CERTIFICATE/TRAINING PROGRAMS *(continued)*

AUBURN CAREER CENTER (Concord Twp)

HVAC Workforce Program

A 600-hour program covering electrical, heating, heat pumps, duct installation, air distribution, hydronics, refrigeration, cooling, and air conditioning.

auburncc.axstudent.com/#/category/b3

CLEVELAND STATE UNIVERSITY (Cleveland)

HVAC Technician Certification

A four- to six-month online 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 Technician Certification.

www.csuohio.edu2.com/product/5094/hvac-technician

CUYAHOGA COMMUNITY COLLEGE (Cleveland)

Associate of Applied Science in Industrial Maintenance Technology

Students learn how to diagnose and maintain HVAC industrial boiler systems.

www.tri-c.edu/programs/engineering-technology/integrated-systems-engineering-technology/index.html

CUYAHOGA VALLEY CAREER CENTER (Brecksville)

HVAC Technician Training Program

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

www.cvvccworks.edu/adult-education/adult-education-programs/hvac/

FORTIS COLLEGE (Cuyahoga Falls)

HVAC and Refrigeration Program

Combines classroom instruction and lab modules to prepare students for entry-level HVAC employment. Prepares students for EPA certification.

www.fortis.edu/campuses/ohio/cuyahoga-falls/hvac.html

LAKE ERIE COLLEGE (Painesville)

HVAC Training Program

A five-semester or quarter program to prepare students for:

- OSHA 30-Hour Safety Certification
- ESCO Electrical Certificate
- ESCO Gas Heating Certificate
- ESCO Combustion Analysis & Fuel Efficiency Certificate
- EPA Section 608 Certification

www.lec.edu/career-and-professional-advancement-programs

POLARIS CAREER CENTER (Middleburg Hts)

HVAC/R Program

A 600-hour program (20-week day program or 35-week evening program). Prepares students for:

- 608 EPA Certification
- OSHA 10-Hour Certification
- North American Technician Excellence (NATE) HVAC Support Technician
- HC/HFO - Hydrocarbon/ Hydrofluoroolefin

www.polaris.edu/o/pcc/page/hvac

ADDITIONAL RESOURCES

PHCC ACADEMY PLUMBING & HVAC WORKFORCE READINESS COURSE: A free course for students that provides an introduction to working in the plumbing, heating, and cooling industry and helps them make decisions about their career path in the industry.

www.phccacademy.org/workforce-readiness-course/

SHEET METAL WORKERS LOCAL 33: smwlu33.org/

CLEVELAND BUILDING & CONSTRUCTION TRADES COUNCIL: www.cbctc.org/

SMART (SHEET METAL, AIR, RAIL, TRANSPORTATION): Provides a 4-year apprenticeship to earn while learning. It covers sheet metal (HVAC), welding, and safety, with college credit options through Cuyahoga Community College. www.sheetmetaltraining.org/training-centers/cleveland-training-center/

Some local companies offer on-the-job training through apprenticeships and paid trainee positions.