



Foundations of Woodworking

Career Explorations:

HVAC Technician

May 13, 2020



9-12/ Foundations of Woodworking
Career Explorations/HVAC Technician: [May 13, 2020]

Objective/Learning Target:

Students will explore the possibility of becoming an HVAC Technician as a career path.

HVAC Technician Career Info

Heating, ventilation, and air conditioning (HVAC) technicians work on the systems and components that ventilate, heat, and cool an area. These systems can control the air quality, temperature, and humidity in a room. These professionals might work at homes, businesses, schools, and factories.

HVAC Technician Career Info

HVAC technicians often must travel to work sites to install and repair wiring, supply lines, and parts. High rates of injuries are reported for these jobs due to the risks of burns, strains, and electrical accidents. According to *PayScale.com*, the median wage for all HVAC technicians is \$19.70 an hour as of February 2020.

Watch The Video:

[How to Become an
HVAC Technician](#)

What does it take to become an HVAC Technician

Training Required	Certificate, associate's degree, or apprenticeship program
Field of Study	HVAC technology
Licensure and Certification	Licensure may be required in some states and localities; EPA certification is necessary to work with refrigerants; other voluntary certifications available
Experience	May need 1-5 years of experience to find work
Key Skills	Troubleshooting, mechanical, time-management, and customer service skills; blueprint reading abilities; manual dexterity and physical strength
Median Salary (2020)*	\$19.70/hour \$40,976 annual salary based on a 40-hour week

Sources: U.S. Bureau of Labor Statistics, O*NET OnLine, Monster.com job postings, *PayScale.com

How can I become an HVAC Technician

Getting started:

Prospective HVAC technicians can receive training from community colleges or vocational schools by enrolling in a certificate or an associate's degree program in HVAC technology. In addition to learning about heating, ventilation, and air conditioning units, HVAC technology coursework may include equipment design and temperature control, blueprint reading, mechanical systems, and electronics.

Apprenticeship Program

Another training option is to enroll in an apprenticeship program. Apprenticeship programs can last anywhere from 3-5 years and can combine academic coursework with on-the-job training that consists of 2,000 hours per year. Apprentices may also receive a stipend while they complete the program. To apply for an apprenticeship, individuals must have a high school diploma and complete a math exam.

Obtain EPA Certification & State License

Employers typically require that HVAC technicians obtain certification from the U.S. Environmental Protection Agency (EPA), which can qualify them to handle different types of refrigerants. The EPA offers three different levels of certification for HVAC technicians. Type 1 involves working with small appliance refrigerants.

Obtain EPA Certification & State License

Type 2 deals with high-pressure refrigerants, and Type 3 covers low-pressure refrigerants. Each type of certification requires applicants to pass an examination. A few states require HVAC technicians to receive licensure, which usually involves taking an exam.

Consider Industry Certification

Professional certification is available through the Air-Conditioning, Heating, and Refrigeration Institute. HVAC technicians can pursue a variety of certifications in areas like residential boilers, unit ventilators, commercial furnaces, and heat pump pool heaters. In order to achieve certification, technicians will need to pass an examination.

In Summary

Becoming an HVAC technician involves enrolling in a collegiate or vocational training program, obtaining EPA certification and state licensure, and earning professional certification through the Air-Conditioning, Heating, and Refrigeration Institute.

HVAC Technician fun facts

1. An HVAC Technician works on the systems and components that ventilate, heat, and cool an area.?

- True
- False

Answer: True

2. The average salary for an HVAC Technician according to the Bureau of Labor and Statistics is?

- \$30,000 - \$40,000 annually

- \$40,000 - \$50,000 annually

- \$50,000 - \$60,000 annually

- \$60,000 - \$70,000 annually

**Answer: \$40,000
- \$50,000**

According to the Bureau of Labor and
Statistics the average income for an
electrician in February of 2020 was
\$40,976

3. High rates of injuries are reported in this job category due to?

- Burns
- Strains
- Electrical Injuries
- All of the above
- None of the above, the injury rate is very low.

Answer: All of the above

A high rate of burns, strains and electrical injuries is reported with this job

**4. You must attend a 4-year university
in order to receive the certification
required to become an HVAC
Technician?**

- True
- False

Answer: False

These guidelines are set at the state level and often only require a high school diploma and the completion of an apprenticeship program OR completion of course work at a trade school or 4-year college.

5. The apprenticeship program in this area often lasts.

- 1-2 year
- 2-4 years
- 3-5 years
- 4-6 years
- None of the Above

Answer: 3-5 years

Apprenticeships, which generally take 3-5 years to complete, offer on-the-job training along with classroom instruction.

6. HVAC stands for?

- High Voltage Analytical Control
- Heating Vertical Accessory Components
- Heating Ventilation Air Conditioning
- Home Ventilation And Controls

**Answer: Heating
Ventilation
Air Conditioning**

7. During the 3-5 apprenticeship a student will receive approximately _____ hours of classroom instruction and technical training in the field each year?

- 1000
- 2000
- 2300
- 2700

Answer: 2000

During the 3-5 year apprenticeship program the trainee will complete at least 2000 hours of classroom instruction and technical training in the field per year.

8. An HVAC Technician must have EPA certification and a valid state license prior to working on a system.

- True
- False

Answer: True

Becoming an HVAC Technician involves enrolling in a collegiate or vocational training program, obtaining EPA certification and state licensure.

Credit

- x Bureau of Labor and Statistics
- x Study.com

