

# Education Today / Career Tomorrow

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## Air-Conditioning Technician

Air-conditioning systems control the temperature, humidity, and the total air quality in residential, commercial, industrial, and other buildings. Air-conditioning technicians install, maintain, and repair such systems. Because ventilation and air-conditioning systems often are referred to as HVAC systems, these workers also may be called HVAC technicians.

Air-conditioning systems consist of many mechanical, electrical, and electronic components, such as

motors, compressors, pumps, fans, ducts, pipes, thermostats, and switches. Technicians must be able to maintain, diagnose, and correct problems throughout the entire system. They adjust system controls to recommended settings and test the performance of the system using special tools and test equipment.

Technicians often specialize in either installation or maintenance and repair, although they are trained to do both.

Technicians follow blueprints to install oil, gas, electric, solid-fuel, and multiple-fuel air-conditioning systems.

After an air-conditioning unit has been installed, technicians perform routine maintenance and repair work to keep the systems operating efficiently.

Source:  
*The Occupational Outlook Handbook*

## Job Outlook Money Matters

Employment of air-conditioning and refrigeration mechanics and installers is projected to increase during the 2006-16 decade. As the population grows, so does the demand for climate-control systems.

The increased complexity of HVAC systems, which increases the possibility that equipment may malfunction, also will create opportunities for service technicians.

A growing focus on improving indoor air quality should also create more jobs in the industry.

### Career: Air-Conditioning Technician

**Job Description:** Performs skilled work in the operation, maintenance, and repair of ventilating, refrigeration, and air conditioning systems.

**Salary:** \$16.75-\$20.50 per hour

For more information on how to start your career as an Air-Conditioning Technician, please contact:

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## Education Needed

Because of the increasing sophistication of air-conditioning systems, employers prefer to hire those who have completed technical school training.

Many secondary and postsecondary technical and trade schools and community colleges offer 6-month to 2-year programs in air-conditioning and refrigeration.

Students study temperature control, equipment design and construction, and electronics. They also learn the basics of installation, maintenance, and repair.

Many technicians train through apprenticeships. Formal apprenticeship programs normally last 3 to 5 years and combine paid on-the-job training with classroom instruction.

Courses in shop math, mechanical drawing, applied physics and chemistry, electronics, blueprint reading, and computer applications provide a good background for those interested in entering this occupation.

Some knowledge of plumbing or electrical work also is helpful. A basic understanding of electronics is becoming more important because of the increasing use of electronics in equipment controls.

Because technicians frequently deal directly with the public, they should be courteous, especially when dealing with an aggravated customer. They also should be in good physical condition.



"The job outlook for HVAC is really positive. Because of the current housing market, remodeling and home repair is high right now. Once a student gains the knowledge from this program, he or she can get into any technical field—anything from hospitals to residential work. In the Air-Conditioning program at Manatee Technical Institute, we teach everything from refrigeration to boat and yacht air-conditioning." - John Ferraro

"I am taking this course to get myself financially stable; I just went through a divorce. I know there will be so many opportunities after graduation. John Ferraro is one heck of an instructor and I am absorbing all I can. I just passed my EPA exam and I am happy with my position now after training. I am looking forward to starting a new career and earning a living. The future is promising because people will always need air!" - Rodney Washington

Teacher

Student

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