

# HEATING, AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

## Is Heating, Air Conditioning and Refrigeration for me?

*The field is for you if you ...*

- Enjoy working with people.
- Enjoy helping people solve problems.
- Enjoy working on your own.
- Desire a job with a good salary and potential for advancement.
- Like to repair mechanical items.
- Want to use state-of-the-art test equipment to solve problems.
- Are willing to learn and apply new ideas.  
Like to be a logical thinker.

## What skills will I need for this field?

*You will need to ...*

- Be able to read blueprints and design specifications.
- Fabricate sheet metal.
- Assemble, install or construct equipment.
- Understand electricity and basic electronics.
- Diagnose and repair related systems.
- Possess soldering, plumbing and hand tool skills.
- Possess good verbal skills.
- Compute and understand math through basic algebra and geometry.

## What is the work atmosphere like?

Generally indoor, in a variety of conditions from new construction sites to older buildings and residences. Evening and weekend work in emergencies. Active work involving installation and repair of mechanical, electric and gas units requiring some physical strength and endurance. Be able to lift up to 100 pounds and work on roofs.

## What are my degree options?

### **Certificates**

Service Technician  
Stationary Operator

### **Associate's Degree**

Associate in Applied Science (AAS)

### **Bachelor's Degree**

Bachelor's degrees are available by transferring to four-year colleges and universities. For example: Ferris State University and Southern Illinois University (Capstone Program).

### **Professional Certification**

Professional certification is available through Air Conditioning and Refrigeration Institute (ARI) and the Gas Appliance Manufacturers Association (GAMA). Exams are for residential or light commercial, air conditioning and heating. Refrigeration Service Engineers Society (RSES) is another testing agency. Your HVAC Instructor can help you contact the ARI/GAMA or RSES test site.

## What are my career opportunities?

Experienced Heating, Air Conditioning and Refrigeration (HVAC) system technicians may advance to lead person or foremen, estimators, city/county inspectors, manufacturers and specialists. Some technicians establish their own service business or contracting business. You may want to enter other related areas with additional experience and education such as sales or engineering.

## What can I do with these degrees?

*If you have completed ...*

### **Certificate**

Air Conditioning/Heating/Refrigeration Service Technician, Stationary Operator

### **Associate in Applied Science Degree**

Mechanical Foreman, Service and Installation Manager, Service Manager, Stationary Engineer

## How can I prepare now?

*Recommended courses ...*

### **Math**

Algebra or Applied Algebra and Geometry Fundamentals

### **Science**

Applied Physics or Physical Science

### **Communications**

Composition, Technical Reading and Writing, Speech

### **Recommended Supporting Electives**

Heating and Air Conditioning, Appliance Repair

### **Electives**

Metal Technology Welding, CAD/Drafting, Technology Systems, Keyboarding

## What about my articulated credit?

Check with your high school coordinator to see if you are eligible for articulated credit at College of DuPage.

### **Bachelor's Degree**

Building Automation Engineer, Control Engineer, Designer Engineer, Engineer Technician, Heating and Refrigeration System Sales Engineer

## What should I take in my first semester at C.O.D.?

AIRC 1110: Introduction to Controls

AIRC 1105: Introduction to Safety, Materials, and Equipment

AIRC 1100: Refrigeration Principles

General Education Course

## Whom can I talk to for more information?

Business and Technology Division

(630) 942-2592

For more information on the Associate in Applied Science Degree curriculum, see your program coordinator, or go to [www.cod.edu](http://www.cod.edu).