

CAREER AND TECHNICAL CERTIFICATE - HEATING, VENTILATION, AIR- CONDITIONING/ REFRIGERATION (HVAC/R)

Previous Degree Required: HS Diploma

Eligible for Financial Aid: Yes

Delivery Method(s): On-Campus

Location(s): Cocoa

Additional Limited Access Application Process Required: Yes

Program Testing Requirements: TABE - Test of Adult Basic Education

Academic Community: INMC Industry/Manufacturing and Construction

Program Code: AIR3

Classification of Instructional Programs (CIP) Code: 15.0501

Florida Department of Education CIP Code: 0615050110

- **Leads to State or Organizational License or Certification:** Mainstream Engineering EPA Certification 608 Refrigerants
- **Cost Associated with taking the exam:** \$27
- **Where to take the exam:** Exam can be taken in EFSC Testing Services

This certificate program gives completers employment opportunities as paraprofessionals in installation, service, and repair by mechanical and refrigeration contractors, dealers, and related commercial businesses. Students will study basic refrigeration, electrical circuitry, load calculations, and residential systems.

Refer to the [Career and Technical Certificates](#) overview page to find information about admission, graduation, testing, and other requirements.

Visit the [program page](#) for more information.

Certificate Requirements

Code	Title	Clock Hours
Completion Group 1 (Fall Term)		
ACR 0704	Introduction to Heating, Ventilation, Air Conditioning, and Refrigeration	150
ACR 0122	Refrigeration and Air Conditioning Components	150
ACR 0060	Residential Load Calculations	90
ACR 0061	Psychrometrics Calculations	90
Completion Group 2 (Spring Term)		
ACR 0608	Residential Heating Systems	120
ACR 0106	Electricity for HVAC Single Phase	150
ACR 0107	Electrical Circuitry for HVAC	90
ACR 0602	Heat Pump Technology	150
Completion Group 3 (Summer Term)		
ACR 0705	Mechanical Systems	120
ACR 0701	HVAC Troubleshooting and Repair	150
ACR 0022	Domestic Refrigeration	90
Total Clock Hours		1350

Learning Outcomes

1. Distinguish different types and uses of electricity related to HVAC
 - *Supports Core Ability: Communicate Effectively*
2. Identify various materials required for copper tubing connection
 - *Supports Core Ability: Process Information*
3. Perform effective soldering and brazing techniques.
 - *Supports Core Ability: Think Critically and Solve Problems*
4. Demonstrate proper use of test gauges.
 - *Supports Core Ability: Process Information*
5. Demonstrate proper use & handling of refrigerant recovery system.
 - *Supports Core Ability: Model Ethical and Civic Responsibility*