

CERTIFICATE OF ACHIEVEMENT, AIR CONDITIONING TECHNOLOGY, CLIMATE CONTROL SYSTEMS

Program Description

The Certificate of Achievement, Air Conditioning Technology, Climate Control Systems prepares students to install, maintain, service, troubleshoot, and repair critical systems such as in data process centers and hospitals. The program enables students to learn how to maintain, troubleshoot, and repair HVAC equipment for equipment cooling and other related machinery. Instruction includes classroom, laboratory, and hands-on work in the laboratory or in the field. Along with core classes, academic skills emphasizing related math, science, and human relations components are stressed to help students prepare to meet challenges commonly found in the workplace.

Recommended Course Schedule

1st semester		Units
AC 102	Refrigeration Theory	3
AC 107	Electrical and Controls for HVAC	6
Mathematics ¹		3
AC 201	HVAC Automatic Controls	3
OSH 222	General Industry Safety	1
Semester Total		16
2nd semester		Units
AC 150	Basic Refrigeration Servicing	6
AC 205	Commercial HVAC 2	3
IS 101	Introduction to Information Systems	3
Semester Total		12
3rd semester		Units
CE 201	Workplace Readiness	3
AC 206	Commercial HVAC Systems 3	3
BUS 111	Workplace Communications	3
Semester Total		9
Total Units		37

1

See approved General Education list for the AAS Degree. (<http://catalog.tmcc.edu/degrees-certificates/general-education/aas/>)

2

See program recommendations or requirements.

Certificates of Achievement are a set of courses that can serve as a stepping stone to an associate degree or allow students to enter the workforce. Certificates of Achievement have a general education component.

To earn a Certificate of Achievement, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)

2. Complete a minimum of 15 semester credit hours within the college.
3. Satisfy General Education requirements for the Certificate of Achievement (<http://catalog.tmcc.edu/degrees-certificates/general-education/aas/>).
4. Have no financial or library obligation to the college.

Code	Title	Units
General Education Requirements		
<i>Communications</i>		3
Recommended:		
BUS 111	Workplace Communications	
<i>Human Relations</i>		3
Recommended:		
CE 201	Workplace Readiness	
<i>Mathematics</i>		3
Certificate Requirements		
AC 102	Refrigeration Theory	3
AC 107	Electrical and Controls for HVAC	6
AC 150	Basic Refrigeration Servicing	6
AC 201	HVAC Automatic Controls	3
AC 205	Commercial HVAC 2	3
AC 206	Commercial HVAC Systems 3	3
IS 101	Introduction to Information Systems	3
OSH 222	General Industry Safety	1
Total Units		37

Students completing the certificate will:

- Incorporate workforce safety principals while performing basic tasks of a Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) technician.
- Interpret electrical/mechanical schematics on HVAC/R equipment to diagnose mechanical or electrical problems in a residential or light commercial environment.
- Diagnose and repair electrical or mechanical problems on commercial air conditioning equipment; critical systems; chillers.