

AIR CONDITIONING TECHNOLOGY, AAS

Program Description

The Associate of Applied Science, Air Conditioning Technology prepares students to install, maintain, service, troubleshoot, and repair commercial HVAC systems, such as in industrial facilities, casino's, 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.

Air Conditioning Career Map (<https://sites.tmcc.edu/flipbook/career-maps/4/>)

Recommended Course Schedule

1st semester		Units
AC 102	Refrigeration Theory	3
AC 107	Electrical and Controls for HVAC	6
MATH 108	Math for Technicians (Recommended)	3
OSH 222	General Industry Safety	1
ENG 107	Technical Communications I (Recommended)	3
Semester Total		16
2nd semester		Units
AC 113	Schematic Reading for HVAC/R	3
AC 150	Basic Refrigeration Servicing	6
AC 201	HVAC Automatic Controls (Commercial Track)	3
Or		
Residential/Lite Commercial Track Elective		3
BUS 106	Business English	3
Semester Total		15
3rd semester		Units
AC 108	Motors for HVACR	3
CE 201	Workplace Readiness	3
Science ¹		3
U.S. and Nevada Constitutions		3
AC 205	Commercial HVAC 2 (Commercial Track)	3
Or		
Residential/Lite Commercial Track Elective		3
Semester Total		15
4th semester		Units
** Commercial Track		
AAD 201	History of the Built Environment	3
AC 206	Commercial HVAC Systems 3	3
AC 295	Internship HVAC Career	5
IS 101	Introduction to Information Systems	3
** Residential/Lite Commercial Track		
AAD 201	History of the Built Environment	3

AC 106 or AC 200	Residential Gas Heating or Commercial Refrigeration I	6
Electives		5
Semester Total		14
Total Units		60

¹ See approved General Education list for the AAS Degree. (<https://catalog.tmcc.edu/degrees-certificates/general-education/aas/>)

Program Requirements

AAS degrees are generally non-transfer degrees that are designed for students to enter the workforce.

To earn an AAS degree, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)
2. Complete a minimum of 15 units within the college.
3. Satisfy General Education requirements for the AAS (<https://catalog.tmcc.edu/degrees-certificates/general-education/aas/>).
4. Have no financial or library obligation to the college.

Code	Title	Units
General Education Requirements		
Communications		3
Recommended:		
ENG 107	Technical Communications I	
English		3
Highly Recommended		
BUS 106		
Fine Art/Humanities/Social Science		3
Highly Recommended		
AAD 201	History of the Built Environment	
Human Relations		
Highly Recommended		
CE 201	Workplace Readiness	3
Mathematics		3
Recommended:		
MATH 108	Math for Technicians	
Science ¹		3
Additional College Requirements		
Diversity		
Highly Recommended		
AAD 201	History of the Built Environment	[3]
U.S. and Nevada Constitutions		3
Degree Requirements		
AC 102	Refrigeration Theory	3
AC 107	Electrical and Controls for HVAC	6
AC 108	Motors for HVACR	3
AC 113	Schematic Reading for HVAC/R	3
AC 150	Basic Refrigeration Servicing	6
OSH 222	General Industry Safety	1
Choose one of the following Tracks:		

<i>Commercial Track</i>		<i>17</i>
AC 201	HVAC Automatic Controls	3
AC 205	Commercial HVAC 2	3
AC 206	Commercial HVAC Systems 3	3
AC 295	Internship HVAC Career	5
IS 101	Introduction to Information Systems	3
<i>Residential/ Lite Commercial Track</i>		<i>17</i>
AC 106	Residential Gas Heating	6
or AC 200	Commercial Refrigeration I	
AC 111	Heat Pumps	3
Select 8 units from any additional AC courses.		8
Total Units		60

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Program Outcomes

PSLO1: Incorporate workforce safety principles while performing basic tasks of a Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) technician.

PSLO2: Interpret electrical/mechanical schematics on HVAC/R equipment to diagnose mechanical or electrical problems in a residential or light commercial environment.

PSLO3: Appraise EPA rules, regulations, and refrigerant handling techniques in the performance of HVAC/R duties.

PSLO4: Diagnose and repair electrical or mechanical problems on commercial air conditioning equipment.