

HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

Associate in Applied Science Degree: Refrigeration and Air Conditioning Technology

The courses in this curriculum are theory design and service oriented. Theory courses deal with energy conversions. Service courses are strongly related to a hands-on philosophy. Emphasis is placed upon operating, servicing and installing equipment.

Graduates from this 63 credit-hour program may be employed as engineering laboratory assistants, equipment salesmen, heating and refrigeration servicemen, estimators and system designers.

FIRST YEAR

First Semester

English elective ¹		3
RAC 101		Refrigeration Fundamentals	4
RAC 103		Heating Principles.....	4
RAC 105		Heating and Cooling Controls	<u>4</u>
			15

Second Semester

ELT 142		Electrical Wiring.....	2
RAC 102		Refrigeration Systems.....	4
RAC 104		Residential Comfort Systems.....	4
RAC 106		Advanced Controls	<u>4</u>
			14

Summer Semester

RAC 108		Domestic Refrigeration Appliances.....	4
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SECOND YEAR

First Semester

English elective ¹		3
RAC 201		Refrigeration System Design I	4
RAC 203		Air Conditioning Principles	4
Social Science elective [♦]		<u>3</u>
			14

Second Semester

Humanities elective ^{2,♦}		3
Mathematics elective ³		3
RAC 202		Refrigeration System Design II	4
RAC 204		Air Distribution	3
Social Science elective [♦]		<u>3</u>
			16

¹ Students may take ENG 100 or ENG 101 the first semester, depending upon their test scores and the advice of a Student Development faculty member. ENG 102, ENG 103, or ENG 130 are suggested second semester electives.

² Suggested humanities elective: ART 122 or PHI 110.

³ A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement. Students in this program who utilize the competency test to meet the mathematics requirement must take MNT 110.

[♦] Students need to choose a course to meet the Humanities or Social Science requirement that also meets the World Cultures and Diversity graduation requirement.

HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

The following certificate programs are designed to prepare the students for servicing refrigeration and heating equipment or selling environment equipment to contractors and/or servicemen.

Domestic Refrigeration and Heating Certificate

Required:

RAC	101	Refrigeration Fundamentals.....	4
RAC	103	Heating Principles.....	4
RAC	105	Heating and Cooling Controls	4
RAC	108	Domestic Refrigeration Appliances.....	4

Heating Services Certificate

Required:

RAC	103	Heating Principles.....	4
RAC	105	Heating and Cooling Controls	4
RAC	106	Advanced Controls	4

Refrigeration Service Certificate

Required:

RAC	101	Refrigeration Fundamentals.....	4
RAC	102	Refrigeration Systems.....	4
RAC	105	Heating and Cooling Controls	4
RAC	106	Advanced Controls	4

Refrigeration and Air Conditioning Service Certificate

Required:

ELT	142	Electrical Wiring.....	2
ELT	143	Advanced Electrical Wiring.....	2
RAC	101	Refrigeration Fundamentals.....	3
RAC	102	Refrigeration Systems.....	4
RAC	103	Heating Principles.....	4
RAC	104	Residential Comfort Systems.....	4
RAC	105	Heating and Cooling Controls	4
RAC	106	Advanced Controls	4

Residential Comfort Systems Certificate

Required:

RAC	101	Refrigeration Fundamentals.....	4
RAC	103	Heating Principles.....	4
RAC	104	Residential Comfort Systems.....	4
RAC	105	Heating and Cooling Controls	4
RAC	106	Advanced Controls	4