

HEATING, VENTILATION, A/C, REFRIGERATION

Associate in Applied Science A.A.S.: Refrigeration/Air Conditioning Technology Degree

The courses in this curriculum are theory- designed and service-oriented. Theory courses study heat laws, gas laws, pressures and thermodynamics for energy conservation. Service courses are designed around a strong hands-on philosophy. Emphasis is placed on operation maintenance, service and repairs of heating, air-conditioning and refrigeration systems.

Graduates from this 61 credit-hour program may be employed as service technicians, technical consultants, equipment installers, facility operation engineers, property managers, project managers, insurance adjusters and sales personnel.

FIRST SEMESTER:

Number	Course Title	Credits	Course Category
ELT 110	Introductory Electronics	4	Program Requirement
HVA 101	Refrigeration Fundamentals	3	Program Requirement
HVA 103	Heating Principles	3	Program Requirement
HVA 104	Residential Comfort Systems	3	Program Requirement
MTH 097	Basic Technical Mathematics ¹	3	AAS General Education

SECOND SEMESTER:

Number	Course Title	Credits	Course Category
ENG 101	Composition	3	AAS General Education
HVA 102	Refrigeration Systems	3	Program Requirement
HVA 105	Heating and Cooling Controls	3	Program Requirement
HVA 108	Domestic Refrigeration Appliances	3	Program Requirement
	Natural Science ²	3	AAS General Education

THIRD SEMESTER:

Number	Course Title	Credits	Course Category
ELT 144	AC and DC Motors	2	Program Requirement
ENG 103	Technical and Report Writing	3	AAS General Education
HVA 106	Pneumatic Controls Systems	3	Program Requirement
HVA 107	Commercial Air Conditioning Systems	3	Program Requirement
HVA 109	Commercial Heating Systems	3	Program Requirement
HVA 110	Blueprints and Plans for HVAC	2	Program Requirement

FOURTH SEMESTER:

Number	Course Title	Credits	Course Category
ELT 145	Variable Frequency Drives	2	Program Requirement
	Humanities or Social and Behavioral Science ⁺	3	AAS General Education
HVA 200	HVAC/R Mechanical Codes and Standards	2	Program Requirement
HVA 201	Refrigeration System Design	2	Program Requirement
HVA 203	Load Calculations	2	Program Requirement
HVA 204	Air Distribution	2	Program Requirement
HVA 205	Customer Service and Support	1	Program Requirement

¹ Students may take MTH 080, MTH 097, MTH 101, or MTH 103 or higher.

² See full list of [AAS General Education Electives](#).

⁺ The Humanities or Social and Behavioral Science course must meet the World Cultures and Diversity graduation requirement. See full list of [AAS General Education Electives](#).