

## Heating, Air Conditioning and Refrigeration (HVACR) Technology Certificate (HACC)

Provides students with an in-depth study of heating, air conditioning, and refrigeration servicing, as well as plant maintenance of electrical and mechanical control systems.

All courses in the certificate program can be applied to the HVACR A.A.S. degree program.

Employment opportunities include installation and service technician for all facets of HVACR equipment, HVACR counter and outside salespersons, and factory service representatives.

## Upon successful completion of this program, graduates will be able to:

- join copper using soft and hard soldering techniques. read and draw schematic wiring diagrams.
- evaluate blueprints for residential buildings.
- identify and list the components and their function for the basic refrigeration cycle.
- identify refrigerants by measuring temperature and pressures.
- pass EPA certifications for refrigerant recovery and use.
- install and service typical residential and light commercial HVACR equipment.
- follow the NEC to install residential and light commercial wiring as it relates to the HVACR industry.
- install and service natural and LP gas equipment.
- install and service air-to-air heat pumps.
- practice positive customer relations.

## 2-Year Sequence

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	Credits		
Basic Electricity	3		
Construction Print Reading	3		
Air Conditioning and			
Refrigeration I	3		
	9		
Spring Semester			
Air Conditioning and			
Refrigeration II	3		
Electrical Maintenance I	3		
Heating Systems	3 3 9		
	9		
Domestic Oil Burners	3		
Advanced Air Conditioning and			
Refrigeration	3		
Residential Wiring	3 3		
	9		
Spring Semester			
Piping and Hydronic Heating	3		
Heat Pumps	3		
Gas Furnaces	3 3		
	9		
Credit Total	36		
	Basic Electricity Construction Print Reading Air Conditioning and Refrigeration I ter Air Conditioning and Refrigeration II Electrical Maintenance I Heating Systems Domestic Oil Burners Advanced Air Conditioning and Refrigeration Residential Wiring ter Piping and Hydronic Heating Heat Pumps Gas Furnaces		

## **12-Month Sequence**

Fall Semester		Credits	
HAC 104	Basic Electricity	3	
HAC 119	Construction Print Reading	3	
HAC 131	Air Conditioning and		
	Refrigeration I	3	
HAC 150	Heating Systems	3	
		12	
Spring Semester			
HAC 132	Air Conditioning and		
	Refrigeration II	3	
HAC 135	Domestic Oil Burners	3	
HAC 140	Electrical Maintenance I	3 3	
HAC 204	Gas Furnaces	3	
		12	
Summer Semester			
HAC 125	Piping and Hydronic Heating	3	
HAC 145	Advanced Air Conditioning and	1	
	Refrigeration	3	
HAC 160	Residential Wiring	3	
HAC 203	Heat Pumps	3	
		12	
	Credit Total	36	