Refrigeration

Certificate

Program Coordinator: Jim Kroll • OTC 201 • 276-739-2560
Length: **Two semesters (one year)

***Program can be completed in day or evening classes. The day program starts in even numbered years and the evening program starts in odd numbered years.*

Purpose: The Certificate program in Refrigeration is designed to provide the student with HVACR skills in the vapor compression refrigeration cycle; commercial and residential refrigeration systems, basic electricity and HVACR electrical controls such as; temperature, pressure, and time operated controls. Students will receive training in the proper handling of refrigerants according to EPA guidelines. A student who completes the certificate program is capable of performing job skills normally expected of a beginning refrigeration technician. Students should note that the certificate program is the same as the first two semesters in both the HVACR diploma and AAS degree programs. Completion of either the diploma or AAS degree program is recommended, providing more employment opportunities in the additional areas of indoor climate control.

Occupational Objectives: Refrigeration Technician, HVACR Technician, HVACR Technical Sales

Admission Requirements: A student eligible for admission to the College can normally be considered for admission to the Refrigeration curriculum. Proficiency in high school English is required. Students who are not proficient in English will be required to correct their deficiencies in developmental courses. The HVACR industry changes related to EPA regulations involving refrigerants, DOE efficiency requirements for equipment, and equipment manufacturer requirements for updated training, will require that students requesting credit for AAS/diploma/certificate/any other AIR classes older than 8 years old, from VHCC or other sources, will need to demonstrate competency and an understanding of current HVACR procedures to the HVACR faculty in order to receive approval.
Program Requirements: Approximately two-thirds of the curriculum will include courses in Air Conditioning and Refrigeration, with the remaining courses in related subjects, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in Air Conditioning and Refrigeration Servicing. Each student is advised to consult with his/her faculty advisor and counselor in planning a program and selecting electives. Upon completion of the two-semester curriculum listed on this page, the student will be awarded a Certificate in Refrigeration.

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
First Semester (Fall)				
AIR 111	Air Cond. & Ref. Controls I	2	2	3
AIR 171	Refrigeration I (Basic)	6	6	9
ENG 111 or ENG 115	College Composition I or Technical Writing	3	0	3
SDV 101	Orientation to College Success	1	0	1
	Total	**12**	**8**	**16**
Second Semester (Spring)				
AIR 112	Air Cond. & Ref. Controls II	2	2	3
AIR 159	Heating and Cooling Safety	1	0	1
AIR 172	Refrigeration II	6	6	9
MTH 111	Basic Technical Mathematics	3	0	3
	Total	**12**	**8**	**16**
Total Minimum Credits for Certificate				**32**