

Certificate - Applied Technology: Air Conditioning and Refrigeration (HVAC) option

This program emphasizes the fundamental principles for air conditioning, and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common, and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system.

	credit hours
Required general education courses	12
ENG 101 English Composition I	3
MTH 100 Intermediate College Algebra or higher level MTH	3
SPH 106 Fundamentals of Oral Communication	3
or SPH 107 Fundamentals of Public Speaking	3
CIS 146 Microcomputer Applications	3
Required Air Conditioning and Refrigeration courses	43
ADM 100 Industrial Safety	3
ADM101 Precision Measurement	3
ADM 102 Computer Aided Design	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes	3
ADM 104 Introduction to Thermal/Electrical Principles	3
ADM 105 Fluid Systems	3
ADM 106 Quality Control Concepts	3
ACR 111 Principles of Refrigeration	3
ACR 112 HVACR Service Procedures	3
ACR 113 Refrigeration Piping Practices	3
ACR 119 Fundamentals of Gas Heating Systems	3
ACR120 Fundamentals of Electric Heating Systems	3
ACR121 Principles of Electricity for HVACR.	3
ACR 148 Heat Pump Systems	3
ACR 183 Special Topics in Air Conditioning and Refrigeration	1
Additional certificate requirements	3
*ORI 101 Orientation to College	1
WKO 101 Workplace Skills Development	2
Total	58