

## AIR CONDITIONING & REFRIGERATION (ACR)

**MISSION:** The mission of the Air Conditioning and Refrigeration program is to prepare students to successfully install service and troubleshoot HVACR systems. As HVACR technicians, graduates will be skilled in both commercial and residential service.

The Air Conditioning/Refrigeration program's instructional process begins with the fundamentals of refrigeration and electricity. Once these courses are mastered, students will take advanced courses in a sequence that fits their individual interest. Each course offers specific skills needed by technicians on the job. Students receive assignments and job sheets through each phase of study and all hands-on learning occurs on industry standard equipment.

This program consists of one short-certificate, one certificate and an A.O.T. degree option.

### AIR CONDITIONING/REFRIGERATION Short Certificate – 23 Credit Hours

*Note: PSY 100 Orientation and WKO 107 Workplace Skills Preparation are required during the first semester of attendance for all students entering this program.*

	<b>Semester Hours</b>
• PSY 100 Orientation	1
• WKO 107 Workplace Skills Preparation	1
• ACR 111 Principles of Refrigeration	3
• ACR 121 Principles of Electricity for HVACR	3
<i>Select 15 credit hours from the following courses:</i>	
• ACR 112 HVACR Service Procedures	3
• ACR 113 Refrigeration Piping Practices	3
• ACR 119 Fundamentals of Gas Heating Systems	3
• ACR 122 HVACR Electric Circuits	3
• ACR 123 HVACR Electrical Components	3
• ACR 130 Computer Assisted HVAC Troubleshooting	1
• ACR 132 Residential Air Conditioning	3
• ACR 134 Ice Machines	3
• ACR 135 Mechanical/Gas/Safety Codes	3
• ACR 144 Basic Drawing/Blueprint Reading HVAC	3
• ACR 147 Refrig. Transition/Recovery Theory	3
• ACR 148 Heat Pump Systems I	3
• ACR 181 Special Topics: ACR I	3
• ACR 182 Special Topics: ACR II	3
• ACR 192 HVAC Apprenticeship/Internship	3
• ACR 203 Commercial Refrigeration	3
• ACR 205 System Sizing and Air Distribution	3
• ACR 210 Troubleshooting HVACR Systems	3

## AIR CONDITIONING/REFRIGERATION Certificate – 52 Credit Hours

*Note: PSY 100 Orientation and WKO 107 Workplace Skills Preparation are required during the first semester of attendance for all students entering this program.*

	<b>Semester Hours</b>
<b>General Studies Courses</b>	<b>12</b>
<b>Composition</b>	<b>3</b>
• COM 100 Career Technical English	
<b>Computers</b>	<b>3</b>
• CIS 146 Microcomputer Applications*	
<b>Mathematics</b>	<b>3</b>
• MAH 101 Introductory Technical Math I	
<b>Communications</b>	<b>3</b>
<i>Select one of the following courses:</i>	
• SPC 103 Career Technical Speaking	
• SPH 107 Fundamentals of Public Speaking*	
<i>*Approved for the A.O.T. degree</i>	
<b>Pre-Professional Courses</b>	<b>3</b>
• PSY 100 Orientation	1
• WKO 107 Workplace Skills Preparation	1
• BSS 220 Professional Transition	1
<b>Major Courses</b>	<b>37</b>
• 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
• ACR 121 Principles of Electricity for HVACR	3
• ACR 123 HVACR Electrical Components	3
• ACR 130 Computer Assisted HVAC Troubleshooting	1
• ACR 132 Residential Air Conditioning	3
• ACR 148 Heat Pump Systems I	3
<i>Select 12 credit hours from the following courses:</i>	
• ACR 122 HVACR Electric Circuits	3
• ACR 134 Ice Machines	3
• ACR 135 Mechanical/Gas/Safety Codes	3
• ACR 144 Basic Drawing/Blueprint Reading	3
• ACR 147 Refrigerant Transition and Recovery Theory	3
• ACR 181 Air Conditioning/Refrigeration I	3
• ACR 182 Air Conditioning/Refrigeration II	3
• ACR 192 HVAC Apprenticeship/Internship	3
• ACR 203 Commercial Refrigeration	3
• ACR 205 System Sizing and Air Distribution	3
• ACR 210 Troubleshooting HVACR Systems	3
<i>Optional Industry Related Course:</i>	
ACR 200 Review for Contractors Exam	3