Air Conditioning and Refrigeration A.A.S.

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NOTICE(s): For the A.A.S. Degree in Air Conditioning and Refrigeration, the student must complete a minimum of 76 credit hours – a minimum of 61 in technical courses and a minimum of 15 in general education courses – all of which must be approved by the advisor. A maximum of 9 credit hours of technical electives may be selected from any approved area of Engineering Technology programs with prior written approval from the student's major advisor. Technical courses may vary to meet student needs and to provide options. Admission Requirement: High school diploma or GED.

Area I — Written Composition

Item #	Title	Hours	Grade	Term Completed
ENG 101	English Composition I	3		
	Sub-Total Credits	3		

Area II — Humanities and Fine Arts

Item #	Title	Hours	Grade	Term Completed
	Humanities/Fine Arts Elective	3		
	Sub-Total Credits	3		

Area III — Natural Sciences and Mathematics

Item #	Title	Hours	Grade	Term Completed
INT 104	Principles of Technology	3		
	MTH 100: Intermediate College Algebra OR numerically higher	3		
	Sub-Total Credits	6		

Area IV — History, Social and Behavioral Sciences

Item #	Title	Hours	Grade	Term Completed
	History, Social and Behavioral Sciences Elective	3		
	Sub-Total Credits	3		

Area V - Required Technical Courses

Item #	Title	Hours	Grade	Term Completed
ACR 111	Principles of Refrigeration	3		
ACR 112	HVACR Service Procedures	3		
ACR 113	Refrigeration Piping Practices	3		
ACR 121	Principles of Electricity for HVACR	3		
ACR 122	HVACR Electric Circuits	3		
ACR 123	HVAC/R Electrical Components	3		
EET 100	Introduction to Engineering Technologies	3		
ORI 101	Orientation to College	1		
WKO 101	Workplace Skills Development I	1		
	Sub-Total Credits	23		

Additional Coursework

Choose 38 credit hours from the following list:

Item #	Title	Hours	Grade	Term Completed
ACR 119	Fundamentals of Gas Heating Systems	3		
ACR 120	Fundamentals of Electric Heating Systems	3		
ACR 125	Fundamentals of Gas and Electrical Heating Systems	6		
ACR 126	Commercial Heating Systems	3		
ACR 127	HVACR Electric Motors	3		
ACR 128	Heat Load Calculations	3		
ACR 130	Computer Assisted HVAC Troubleshooting	1		
ACR 132	Residential Air Conditioning	3		
ACR 133	Domestic Refrigeration	3		
ACR 134	Ice Machines	3		
ACR 135	Mechanical/Gas/Safety Codes	3		
ACR 138	Customer Relation in HVAC	3		
ACR 144	Basic Drawing and Blueprint Reading in HVAC	3		
ACR 147	Refrigerant Transition and Recovery Theory	3		
ACR 148	Heat Pump Systems I	3		
ACR 149	Heat Pump Systems II	3		
ACR 150	Basic Sheet Metal Processes	6		
ACR 151	Duct Design and Fabrication	6		
ACR 152	Heat Pump Systems	6		
ACR 181	Special Topics in ACR I	3		
ACR 182	Special Topics in ACR II	3		
ACR 183	Special Topics in ACR	1		
ACR 184	Special Topics In ACR	1		
ACR 185	Special Topics in ACR	2		
ACR 186	Special Topics in ACR	2		
ACR 192	HVAC Apprenticeship/Internship	3		
ACR 193A	Co-Op	1		
ACR 193B	Co-Op	1		
ACR 193C	Co-Op	1		
ACR 194	Co-Op	2		
ACR 195	Co-Op	3		
ACR 200	Review for Contractors Exam	3		
ACR 202	Special Refrigeration Systems	3		
ACR 203	Commercial Refrigeration	3		
ACR 205	System Sizing and Air Distribution	3		
ACR 209	Commercial Air Conditioning Systems	3		
ACR 210	Troubleshooting HVACR Systems	3		
ACR 211	Building Automation and Engineering I	3		
ACR 212	Building Automation and Engineering II	3		
CIS 146	Computer Applications	3		
	INT 101 or EET 103	3		
	INT 103 or EET 104	3		
MDT 105	Introduction to Computer-Aided Design (CAD)	3		
SPH 106	Fundamentals of Oral Communication	3		
	Sub-Total Credits	129		
			76	