

Air Conditioning and Refrigeration Certificate

Advisors - Ayers Campus: Joseph Hulseley, Air Conditioning Refrigeration Building (256.835.5418) jhulseley@gadsdenstate.edu;

Valley Street Campus: Tim Hardy, Air Conditioning Refrigeration Building (256.549.8662) thardy@gadsdenstate.edu

NOTICE(s): For the certificate in Air Conditioning and Refrigeration, the student must complete a minimum of 46 credit hours – 40 hours in technical and 6 hour in general education courses – all of which must be approved by the advisor. Required courses may vary to provide options and to meet student needs. Admission Requirement: High school diploma or GED.

Program: Air Conditioning and Refrigeration

Type: Certificate

Written Composition

Item #	Title	Credits
ENG 101	English Composition I	3
	Sub-Total Credits	3

Natural Sciences and Mathematics

Item #	Title	Credits
	MTH 100: Intermediate College Algebra OR numerically higher	3
	Sub-Total Credits	3

Technical Courses - Required

Item #	Title	Credits
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
ORI 101	Orientation to College	1
	Sub-Total Credits	19

Technical Courses - Additional Coursework

Choose 21 credit hours from the list below:

Item #	Title	Credits
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 193	Co-Op	1
ACR 194	Co-Op	2
ACR 195	Co-Op	3
ACR 200	Review for Contractors Exam	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
CIS 146	Microcomputer Applications	3
	INT 101 or EET 103	3
	INT 103 or EET 104	3
	MDT 105 or DDT 104	3
SPH 106	Fundamentals of Oral Communication	3
	Sub-Total Credits	118
	Total credits:	46