

Air Conditioning & Refrigeration, A.A.S.

Program Code

AAS-ADMA-ACRA

CIP

15.0613

Type

A.A.S.

The Associate of Applied Science degree with a concentration in Air Conditioning and Refrigeration is designed to train the student to become an air conditioning and refrigeration technician. The student in the program learns to install and repair air conditioning and refrigeration equipment in office buildings, factories, homes, food stores, restaurants, theaters, and other establishments. The practical experiences provide proficiency in cutting pipe and repair and maintenance of refrigeration and air conditioning equipment along with load and duct design.

GENERAL EDUCATION CORE REQUIREMENTS

Item #	Title	Credits
ENG 101	English Composition I	3
MTH 103	Introduction to Technical Mathematics	3
	Humanities/Fine Arts Elective (Excluding Speech and Foreign Language)	3
	Social & Behavioral Science Electives	3
	Natural Science or MTH Elective	3-4

ADVANCED MANUFACTURING CORE COURSE REQUIREMENTS

Item #	Title	Credits
ADM 101	Precision Measurement	3
ADM 104	Introduction to Thermal/Electrical Principles	3
ADM 105	Fluid Systems	3
ADM 106	Quality Control Concepts	3
	ADM 107 OR ADM 108	3
ADM 111	Manufacturing Safety Practices	3

AIR CONDITIONING & REFRIGERATION CORE CLASSES

Item #	Title	Credits
ACR 113	Refrigeration Piping Practices	3
ACR 119	Fundamentals of Gas Heating Systems	3
ACR 120	Fundamentals of Electric Heating Systems	3
ACR 121	Principles of Electricity for HVACR	3
ACR 122	HVAC/R Electrical Circuits	3

AIR CONDITIONING ELECTIVES: Choose 15-18 credit hours

Item #	Title	Credits
ACR 112	HVAC Service Procedures	3
ACR 123	HVAC/R Electrical Components	3
ACR 126	Commercial Heating Systems	3
ACR 128	Heat Load Calculations	3
ACR 132	Residential Air Conditioning	3
ACR 135	Mechanical Gas Safety Codes	3
ACR 138	Customer Relations in HVAC	3
ACR 141	Environmental Systems	4
ACR 147 (3T)	Refrigeration Transition and Recovery	3
ACR 148	Heat Pump Systems I	3
ACR 149	Heat Pump Systems II	3
ACR 151	Duct Design & Fabrication	6
ACR 181	Special Topics in Air Conditioning and Refrigeration	3
ACR 187	Special Topics in ACR	5
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 211	Building Automation and Engineering I	3
ACR 212	Building Automation and Engineering II	3
	Total Credits	63-67