APPLIED ENGINEERING & TECHNOLOGIES

AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

Air Conditioning, Heating, and Refrigeration Technology Degree - A35100

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems. Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety.

AAS degree graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems and. should be able to demonstrate an understanding of system selection and balance and advanced systems.

Air Conditioning, Heating, and Refrigeration Technology Diploma - D35100A

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments.
Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

Air Conditioning, Heating, and Refrigeration Technology Certificate - C35100B

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The certificate program covers air conditioning, furnaces, tools, and instruments.
Certificate graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential systems.

Design Certificate - C35100D

The Air Conditioning, Heating, and Refrigeration Technology Design Certificate is designed for individuals interested in the basics of how to design residential and commercial AHR systems. Topics include building codes, principles and concepts of conventional residential heating and cooling system design, principles of designing heating and cooling systems for commercial buildings, and common business and customer relation practices. Certificate graduates should be able to assist in the design of residential and commercial AHR systems, and the mechanical codes that apply toward system installation.

Building Automation Certificate – C35100E

Commercial Refrigeration Certificate – C35100F

Program Sequence

First Semester

AHR	111	HVACR Electricity	3
AHR	113C	Comfort Cooling	2

Second Semester

AHR	110	Introduction to Refrigeration	5
AHR	112	Heating Technology	4
AHR	113L	Comfort Cooling	2
PSY	118	Interpersonal Psychology	3

Third Semester

AHR	114	Heat Pump Technology	4
AHR	125	HVACR Electronics	3
AHR	133	HVAC Servicing	4
ENG	110	Freshman Composition	3

Complete AHR Evening Certificate (C35100B): AHR 111, AHR 112, AHR 113, AHR 125, AHR 133

Fourth Semester

AHR	115	Refrigeration Systems	2
AHR	213	HVACR Building Code	2
AHR	151	HVAC Duct Systems I	2
AHR	211	Residential System Design	3
Elective List I			1

Complete AHR Diploma (D35100A): AHR 110, AHR 111, AHR 112, AHR 113C, AHR 113L, AHR 114, AHR 115, AHR 125, AHR 133, AHR 151, AHR 213, ENG 110, PSY 118

Fifth Semester

AHR	180	HVAC Customer Relations	1
AHR	215	Commercial HVAC Controls	2
BAT	111	Building Automation Systems	2
REF	116	Commercial Systems I	4
COM	120	Interpersonal Communication	3

Complete Commercial Refrigeration Certificate (C35100F): AHR 110, AHR 111, AHR 115, REF 116

Sixth Semester

AHR	212	Advanced Comfort Systems	4
AHR	225	Commercial System Design	3
AHR	250	HVAC System Diagnostics	2
AHR	263	Energy Management	2
HUM	121	The Nature of America	3
MAT	110	Mathematical Measurement and Lit	3

Complete Design Certificate (C35100D): AHR 211, AHR 213, AHR 225, AHR 235, AHR 263

Complete Building Automation Certificate (C35100E): AHR 111, AHR 125, AHR 215, AHR 225, AHR 263, BAT 111

Elective List I (Select 1 hour from the following courses):

AHR	160	Refrigerant Certification	1
AHR	235	Refrigeration Design	3
WBL	111	Work-Based Learning I	1

Graduation Requirements..... 72 Credit Hours