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. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the AAS degree covers residential building codes, residential system sizing, and advanced comfort systems.

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

COURSE & HOUR REQUIREMENTS

Course Number & Name	Class Hours	Lab Hours	Credit Hours
FALL SEMESTER			
ACA 111 College Student Success	1	0	1
AHR 110 Intro to Refrigeration	2	6	5
AHR 111 HVACR Electricity OR ELC 111 Intro to Electricity	2	2	3
ELC 125 Diagrams and Schematics	1	2	2
*COM 110 Introduction to Communication	3	0	3
Total	**9**	**10**	**14**
SPRING SEMESTER			
AHR 112 Heating Technology	2	4	4
AHR 113 Comfort Cooling	2	4	4
AHR 125 HVACR Electronics	2	2	3
AHR 160 Refrigerant Certification	1	0	1
*MAT 110 Mathematical Measurement & Lit.	2	2	3
Total	**9**	**12**	**15**
SUMMER SEMESTER			
AHR 114 Heat Pump Technology	2	4	4
AHR 115 Refrigeration Systems	1	3	2
AHR 213 HVACR Building Code	1	2	2
AHR 263 Energy Management	1	3	2
***Major Elective	1/0	0/10	1
Total	**5/6**	**12/22**	**11**
FALL SEMESTER			
AHR 211 Residential System Design	2	2	3
AHR 212 Advanced Comfort Systems	2	6	4
AHR 240 Hydronic Heating	1	3	2
CIS 113 Computer Basics	0	2	1
*ENG 111 Writing and Inquiry	3	0	3
**Social/Behavioral Science Elective	3	0	3
Total	**11**	**13**	**16**
SPRING SEMESTER			
AHR 130 HVAC Controls	2	2	3
AHR 133 HVAC Servicing	2	6	4
AHR 151 HVAC Duct Systems I	1	3	2
AHR 235 Refrigeration Design	2	2	3
*HUM 115 Critical Thinking	3	0	3
Total	**10**	**13**	**15**
TOTAL SEMESTER CREDIT HOURS FOR DEGREE			**71**
*SOCIAL/BEHAVIORAL SCIENCE ELECTIVE - *Choose one (1) course from the following:*			
Course Number & Name	**Class Hours**	**Lab Hours**	**Credit Hours**
ECO 251 Principles of Microeconomics	3	0	3
PSY 150 General Psychology	3	0	3
** MAJOR ELECTIVES *Choose one (1) semester credit hour from the following:*			
AHR 180 HVACR Customer Relations	1	0	1
WBL 111 Work-Based Learning I	0	10	1

*This course is a component of the general education requirements needed for graduation.
NOTE: Students are required to take ACA 111 in their first semester.

AIR CONDITIONING HEATING AND REFRIGERATION TECHNOLOGY DIPLOMA (D35100)

COURSE & HOUR REQUIREMENTS

Course Number & Name	Class Hours	Lab Hours	Credit Hours
FALL SEMESTER			
ACA 111 College Student Success	1	0	1
AHR 110 Intro to Refrigeration	2	6	5
AHR 111 HVACR Electricity OR ELC 111 Intro to Electricity	2	2	3
ELC 125 Diagrams and Schematics	1	2	2
*COM 110 Introduction to Communication	3	0	3
Total	**9**	**10**	**14**
SPRING SEMESTER			
AHR 112 Heating Technology	2	4	4
AHR 113 Comfort Cooling	2	4	4
AHR 125 HVACR Electronics	2	2	3
AHR 160 Refrigerant Certification	1	0	1
*MAT 110 Mathematical Measurement & Lit.	2	2	3
Total	**9**	**12**	**15**
SUMMER SEMESTER			
AHR 114 Heat Pump Technology	2	4	4
AHR 115 Refrigeration Systems	1	3	2
AHR 213 HVACR Building Code	1	2	2
AHR 263 Energy Management	1	3	2
***Major Elective	1/0	0/10	1
Total	**5/6**	**12/22**	**11**
TOTAL SEMESTER CREDIT HOURS FOR DIPLOMA			**40**
** MAJOR ELECTIVES *Choose one (1) semester credit hour from the following:*			
AHR 180 HVACR Customer Relations	1	0	1
WBL 111 Work-Based Learning I	0	10	1

*This course is a component of the general education requirements needed for graduation.
NOTE: Students are required to take ACA 111 in their first semester.

BASIC HVAC CERTIFICATE (C35100)

COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
AHR 110 Intro to Refrigeration	2	6	5
AHR 112 Heating Technology	2	4	4
AHR 113 Comfort Cooling	2	4	4
AHR 160 Refrigerant Certification	1	0	1
AHR 111 HVACR Electricity OR ELC 111 Intro to Electricity	2	2	3
TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE	**9**	**16**	**17**

ADVANCED HVAC CERTIFICATE (C35100A)

COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
AHR 114 Heat Pump Technology	2	4	4
AHR 125 HVACR Electronics	2	2	3
AHR 212 Advanced Comfort Systems	2	6	4
ELC 125 Diagrams and Schematics	1	2	2
TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE	**7**	**14**	**13**

HVAC SYSTEM INSTALLATION CERTIFICATE (C35100B)

COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
AHR 113 Comfort Cooling	2	4	4
AHR 151 HVAC Duct Systems I	1	3	2
AHR 160 Refrigerant Certification	1	0	1
AHR 213 HVACR Building Code	1	2	2
AHR 111 HVACR Electricity OR ELC 111 Intro to Electricity	2	2	3
TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE	**7**	**11**	**12**

HVAC COMFORT ADVISOR CERTIFICATE (C35100C)

COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
AHR 151 HVAC Duct Systems I	1	3	2
AHR 160 Refrigerant Certification	1	0	1
AHR 180 HVACR Customer Relations	1	0	1
AHR 211 Residential System Design	2	2	3
AHR 213 HVACR Building Code	1	2	2
Pick one of the following:			
ECO 251 Principles of Microeconomics	3	0	3
PSY 150 General Psychology	3	0	3
TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE	**9**	**7**	**12**