

Aeronautics

See - Aviation (AVIA)

Air Conditioning and Refrigeration

Division of Vocational Education

Division Dean - Hank Tobler

Faculty

Wayne Freiman
Ronald Trulock

Counselor

Jane Jepson

ASSOCIATE IN SCIENCE DEGREE

AIR CONDITIONING AND REFRIGERATION

This program is designed as the bridge between Engineering and Technology. It will provide students with technical skills to support engineering applications. Graduates of the program will be at the leading edge of the application of new engineering solutions to production in industry. High school preparation usually includes one year of algebra, one year of drafting, and one year of geometry.

To earn an Associate Degree students must complete: (1) all major course requirements with a minimum grade of "C"; (2) 25 units of General Education Graduation requirements; (3) any elective courses to complete a minimum of 60 units; and, (4) with an overall GPA of 2.0. At least 50% of all major course work must be completed at Cypress College.

Required courses are listed in suggested sequence:

Course #	Title	Units
AC/R 101	Refrig Principles & Practice-Lec	4
AC/R 102	Refrig Principles & Practice-Lec/Lab	4
AC/R 103	Psychrometrics	2
AC/R 111	Elec Controls for AC/R - Lec	4
AC/R 112	Elec Controls for AC/R - Lec/Lab	4
AC/R 113	Low Velocity Duct Selection	2
AC/R 201	Refrigeration Systems	4
AC/R 202	Air Cond/Refrig Advanced - Lec/Lab	4
AC/R 203	Refrigeration Layout and Design	2
AC/R 211	Air Conditioning Heat Load	4
AC/R 212	Mechanical Codes and Estimating	4
AC/R 213	Air Cond Layout and Design	2
PHYS	Physics Elective	4
Total Units Required		44

Electives

ELEC 51	Basic Electricity	2
ENGT 101	Technical Drawing	3
MATH 20	Elementary Algebra	4
ENGL 95	Effective Written Communication	3
CIS 101ABC	Beginning Computer Keyboarding	3
CIS 111	Computer Literacy - Introduction to Information Systems	3

AIR CONDITIONING AND REFRIGERATION CERTIFICATE

Primary emphasis of this program is to prepare the student with job entry-level skills. Although further training must be done on the job, the student will have a strong background in fundamental skills of refrigeration, electricity, mathematics, communication skills, and drafting. To earn a certificate, complete the required courses as listed with a minimum grade of "C". At least 50% of all course work must be completed at Cypress College.

Required courses are listed in suggested sequence:

Course #	Title	Units
AC/R 101	Refrig Principles & Practice	4
AC/R 102	Refrig Principles & Practice	4
AC/R 103	Psychrometrics	2
AC/R 111	Elect Controls for AC/R - Lec	4
AC/R 112	Elect Controls for AC/R - Lec/Lab	4
AC/R 113	Low Velocity Duct Selection	2
AC/R 201	Refrigeration Systems	4
AC/R 202	Air Cond/Refrig Advanced - Lec/Lab	4
AC/R 203	Refrigeration Layout and Design	2
AC/R 211	Air Conditioning Heat Load	4
AC/R 212	Mech Codes and Estimating	4
AC/R 213	Air Cond Layout and Design	2
ELEC 51	Basic Electricity	2
or		
ENGT 140	AC/DC Circuits I - Measurements	(4)
*MATH 20	Elementary Algebra (or equiv)	4
or		
ENGL	Communication Skills	3
or		
SPCH	Communication Skills	(3)
CIS 111	Computer Literacy - Introduction to Information Systems	3
PHYS	Physics Elective (or equiv)	4
Total Units Required		56-58

*Equivalent to MATH 20 can be one year of high school algebra.

**Equivalent to PHYS 130 can be one year of high school physics.

Elective

MATH 30	Plane Geometry	4
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INDUSTRIAL TECHNOLOGY

TRANSFER PROGRAM

AIR CONDITIONING SYSTEMS OPTION

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

Required courses are listed in suggested sequence:

Course #	Title	Units
AC/R 101	Refrig Principles & Practice-Lec	4
AC/R 102	Refrig Principles & Practice-Lec/Lab	4
AC/R 103	Psychrometrics	2
AC/R 111	Electrical Controls for AC/R - Lec	4
AC/R 112	Electrical Controls for AC/R - Lec/Lab	4
AC/R 113	Low Velocity Duct Selection	2
AC/R 201	Refrigeration Systems	4
AC/R 202	Air Cond/Refrig Advanced - Lec/Lab	4
AC/R 203	Refrigeration Layout and Design	2
AC/R 211	Air Conditioning Heat Load	4
AC/R 212	Mechanical Codes and Estimating	4
AC/R 213	Air Cond Layout and Design	2
MATH 141	College Algebra	4
ENGL 100	College Writing	3