

# ACR - AIR CONDITIONING AND REFRIGERATION

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## ACR 101 Fundamentals of Refrigeration (3-6-5)

*Offered Fall, Spring, and Summer Semesters*

This course covers the refrigeration cycle, refrigerants, pressure-temperature relationships and system components.

## ACR 102 Tools and Service Techniques (2-3-3)

*Offered Fall, Spring, and Summer Semesters*

This course is a basic study of the uses of tools and service equipment used in the installation and repair of HVAC equipment.

## ACR 106 Basic Electricity for HVAC/R (3-3-4)

*Offered Fall, Spring, and Summer Semesters*

This course includes a basic study of electricity, including Ohm's Law and series and parallel circuits as they relate to heating, ventilating, air conditioning and/or refrigeration systems.

## ACR 110 Heating Fundamentals (3-3-4)

*Offered Fall, Spring, and Summer Semesters*

Prerequisite: ACR 106

This course covers the basic concepts of oil, gas and electric heat, their components and operation.

## ACR 120 Basic Air Conditioning (3-3-4)

*Offered Fall, Spring, and Summer Semesters*

Prerequisites: ACR 101, ACR 106

This course is a study of various types of air conditioning equipment including electrical components, schematics and service to the refrigerant circuit.

## ACR 122 Principles of Air Conditioning (4-3-5)

*Offered Fall, Spring, and Summer Semesters*

Prerequisite: ACR 101

This course is a study of the air cycle, psychometrics, load estimating and equipment selection.

## ACR 131 Commercial Refrigeration (3-3-4)

*Offered Fall, Spring, and Summer Semesters*

Prerequisite: ACR 101

This course is a study of maintenance and repair of commercial refrigeration systems.

## ACR 140 Automatic Controls (2-3-3)

*Offered Fall and Spring Semesters*

Prerequisite: ACR 106

This course is a study of the adjustment, repair and maintenance of a variety of pressure and temperature-sensitive automatic controls.

## ACR 150 Basic Sheet Metal (1-3-2)

*Offered Fall, Spring, and Summer Semesters*

This course covers the tools and procedures required in the fabrication of ductwork.

## ACR 160 Service Customer Relations (3-0-3)

*Offered Fall, Spring, and Summer Semesters*

This course covers how to deal with different types of customers, selling techniques and correct record keeping.

## ACR 206 Advanced Electricity for HVAC/R (1-3-2)

*Offered Fall, Spring, and Summer Semesters*

Prerequisite: ACR 140

This course includes a practical application of electrical and electronic components and circuits used to control HVAC and/or refrigeration systems.

## ACR 210 Heat Pumps (3-3-4)

*Offered Fall, Spring, and Summer Semesters*

Prerequisites: ACR 101, ACR 106

Pre- or Co-requisite: ACR 140

This course is a study of theory and operational principles of the heat pump.