

Virginia Western Community College
AIR 122
AIR CONDITIONING & REFRIGERATION II

Prerequisites

Air 121, Air 111

Course Description

Studies refrigeration theory, characteristics of refrigerants, temperature, and pressure, tools and equipment, soldering, brazing, refrigeration systems, system components, compressors, evaporators, metering devices. Presents charging and evaluation of systems and leak detection. Explores servicing the basic system. Explains use and care of oils and additives and troubleshooting of small commercial systems. Laboratory 2 hours. Part II of II.

Semester Credits: 3 Lecture Hours: 2 Lab/Clinical/Internship Hours: 2

Required Materials**Textbook:**

Modern Refrigeration, 21st edition, ISBN#: 9781635638776

Other Required Materials:

Safety glasses are provided by the student and must be worn at all times while in the lab

Course Outcomes

At the completion of this course, the student should be able to:

At the end of the course the student should have universal epa cert. and be able to recover refrigerant from system. Put system into a vacuum and know how to charge the system to prepare for the system to be put into operation.

Topical Description

To cover the following topics:

- Compressors
- Evaporators and condensers
- Refrigerant metering devices
- Vapor and liquid charging a system
- Burnout procedures
- EPA certification requirements and EPA test
- System evacuation techniques

- Sealed system servicing
- Commercial system servicing
- Head pressure controls
- Motor control devices
- Refrigerant recovery

Notes to Instructors

- None

[ADA Statement](#) (PDF)

[Title IX Statement](#) (PDF)