

Revised: Semester/Year

AIR 122

Air Conditioning and Refrigeration

COURSE OUTLINE

Prerequisites:

Air 121, Corequisite: AIR 238

Course Description:

Prerequisite: AIR 121. Corequisite: AIR 238. 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. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Semester Credits: 3

Lecture Hours: 2

Lab/Recitation Hours: 2

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Course Outcomes

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

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Required Materials:

Safety glasses must be worn at all times while in the lab

Textbook:

Enter Textbook name, edition and ISBN Number Here

The following supplementary materials are available:

- 1.
- 2.
- 3.

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Topical Description: (Outline chapters and sections to be covered in the book – may include timeline)

To cover the following topics:

1. Compressors
2. Evaporators and condensers
3. Refrigerant metering devices
4. Vapor and liquid charging a system
5. Burnout procedures
6. EPA certification requirements and EPA test
7. System evacuation techniques
8. Sealed system servicing
9. Commercial system servicing
10. Head pressure controls
11. Motor control devices
12. Refrigerant recovery

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Notes to Instructors

(List information about optional topics, departmental exams, etc)

- 1.
- 2.
- 3.
- 4.

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