

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: AUT 236

Credits: 4

Course Title: Automotive Climate Control

Course Description: Includes principles of refrigeration, air-conditioning controls, and adjustment and general servicing of automotive air-conditioning systems. Prerequisite: AUT 241. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose: To provide the student with a fundamental understanding of the theory and operation of automotive air-conditioning systems and their components. This will include their function, service, diagnosis, and repair.

Course Prerequisites and Co-requisites:

Prerequisite: AUT 241

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Demonstrate the theory and principles of air-conditioning systems;
- b. Identify the various components of an air-conditioning system and list their functions;
- c. Demonstrate various diagnostic tests on a typical air-conditioning system;
- d. Demonstrate normal service procedures on a typical air-conditioning system; and
- e. Identify faults in the air-conditioning systems and perform the needed repairs.

Major Topics to Be Included:

- a. Basics of air conditioning
- b. Refrigerants and oils
- c. Service equipment
- d. System inspection
- e. Diagnosing system
- f. Testing and adjusting system

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