

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

**Course Prefix and Number:** AUT 236

**Credits:** 4

**Course Title:** Automotive Climate Control

**Course Description (including lecture hours, lab hours, total contacts)**

Includes principles of refrigeration, air conditioning controls, and adjustment and general servicing of automotive air conditioning systems. 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/Corequisites** (*Entry-level competencies **required** for enrollment*)

None

**Course Objectives** (Each item should complete the following sentence.)

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 test on a typical air conditioning system
- d. Demonstrate normal service procedures on a typical air conditioning system
- 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

**Effective Date of Course Content Summary (Month, Date Year):** April 1, 2009