

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

Course Prefix and Number: DSL 176

Credits: 2

Course Title: Transportation Air Conditioning

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

Studies fundamentals of transportation air conditioning. Includes repair, service, and troubleshooting of the refrigeration systems used in road vehicles and heavy equipment. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

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 an understanding of the theory and principles of air conditioning systems
- b. Identify the various components of an air conditioning system and list their functions
- c. Conduct various diagnostic tests on a typical air conditioning system
- d. Perform normal service procedures on a typical air conditioning system
- e. Diagnose faults in the air conditioning system 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): 2/12/09