

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

Course Prefix and Number: DSL 176

Credits: 2

Course Title: Transportation Air Conditioning

Course Description: 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.

General Course Purpose:

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

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; and
- 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

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