

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

Course Prefix and Number: DSL 123

Credits: 2

Course Title: Diesel Engine Systems I

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

Studies basic operational theory of the two and four-stroke cycle diesel engine used in public transportation vehicles. Covers the construction and function of the diesel engine and the major components as they relate to air, exhaust, and fuel systems. Emphasizes diesel engine tune-up and troubleshooting theory. Part I of II. Lecture 2 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. Understand the basic theory of operation of a diesel engine
- b. Describe the different systems and the functions of a diesel engine
- c. Recognize the basic components of a diesel engine

Major Topics to be Included

- a. Theory of the basic diesel engine
- b. Air induction system
- c. Fuel system
- d. Components of the diesel engine

Effective Date of Course Content Summary (Month, Date Year): 2/12/09