

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

**Course Prefix and Number:** AUT 150

**Credits:** 4

**Course Title:** Introduction to the Automotive Diesel Engine

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

Studies modern automotive diesel engine including its construction, fuel system, lubrication, cooling, induction, exhaust systems, maintenance, minor adjustment and repair, and tune-up procedures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

**General Course Purpose**

Discuss the basic theory, operation, and repair of diesel engines. Identify, repair and service procedures for diesel engines. Safety will be emphasized.

**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. Identify the differences between a gasoline and diesel engine
- b. Identify the construction of various types of diesel engines
- c. Describe the various systems in a diesel engine, and the difference of a two stroke vs. four stroke engine
- d. Demonstrate minor repairs
- e. Demonstrate service procedures on a diesel engine

**Major Topics to be Included**

- a. Differences between gasoline and diesel engines
- b. Engine construction
- c. Intake and exhaust system
- d. Cooling and lubrication systems
- e. Fuel system operation
- f. Service of the diesel engine

**Effective Date of Course Content Summary (Month, Date Year):** February 9, 2009