J. Sargeant Reynolds Community College  
Course Content Summary

Course Prefix and Number: DSL 131  
Credits: 4

Course Title: Diesel Fuel Systems and Tune-up

Course Description: Teaches maintenance, adjustment, testing, and general repair of the typical fuel injection components used on non-automotive diesel engines. Includes engine and fuel system tune-up procedures and troubleshooting using current diagnostic equipment. Lecture 2 hours. Laboratory 4 hours. Total 6 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. List the basic characteristics of diesel fuel and understand and list recommended storage and hauling procedures;
b. List the basic types of governing devices used on diesel engines and understand their operation principles;
c. List the basic types of fuel injectors and understand and list their servicing and adjustment procedures;
d. List the tune-up and trouble-shooting procedures on diesel engines and understand and list anti-pollution control devices; and
e. List complete diesel engine tune-up and trouble-shooting procedures according to manufacturer specifications.

Major Topics to Be Included:

a. Diesel fuels  
b. Governors operation  
c. Fuel injector nozzles and holders  
d. Fuel injunction systems examined  
e. Tune-up procedures  
f. Trouble-shooting diesel engine fuel systems

Date Created/Updated (Month, Day, and Year): January 24, 2019