

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
DSL 123 – DIESEL ENGINE SYSTEMS I (2 CR.)

Course Description

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. Lecture 2 hours per week.

General Course Purpose

This course continues with the operation and repair of diesel engines and fuel systems. All engine systems and sub-systems will be reviewed. Diesel troubleshooting and tune-up procedures will be covered. Fuel systems will be discussed to include electronic controlled systems and common rail fuel injection.

Course Prerequisites/Co-requisites

Ability to read, write, and speak the English language. DSL 111 or instructor approval is necessary before DSL 123 is taken.

Course Objectives

Upon completion of this course, the student will be able to:

- Explain the operation of a diesel engine
- Explain the various systems of a diesel engine
- Explain the various fuel systems used on diesel engines
- Explain various engine tune-up procedures

Major Topics to be Included

- Operation of a diesel engine
- Various systems and sub-systems of a diesel engine
- Various types of fuel systems used on diesel engines
- Various types of tune-up procedures used on diesel engines