

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
DSL 111 - INTRODUCTION TO DIESEL ENGINE (2 CR.)**

Course Description

Studies the modern diesel engine, including its fuel, cooling, induction, and exhaust systems. Covers construction, fabrication, maintenance, tune-up, and minor repair and adjustment. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

General Course Purpose

This is a major course in the Diesel career studies certificate program. It is the basic course that covers the history of the diesel engine, major engine systems and diesel engine operating principles. This course is designed to provide basic information for anyone interested in diesel engine operating systems.

Course Prerequisites/Co-requisites

Ability to read, write, and speak the English language.

Course Objectives

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

- Understand the qualifications required to be a diesel technician
- Identify the basic personal safety equipment required for a diesel technician
- List the properties of heavy-duty engine oils
- Perform diesel engine oil change
- Check engine coolant for proper anti-freeze blend
- Inspect air filter and air intake system

Major Topics to be Included

- Introduction – tools and safety
- Engine basics and history
- Engine cooling systems
- Engine lubrication systems
- Engine intake and exhaust systems