

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY

DSL 137 – BASIC DIESEL ENGINE SYSTEMS (5 CR.)

Course Description

Introduces the theory of operation, design, and components of a modern diesel engine. Provides instruction on modern fuel system components and operation. Presents the design and operation of air induction, lubrication, and cooling systems. Demonstrates basic engine diagnostics. Provides preparation for the Automotive Service Excellence (ASE) T2 Engines certification examination. Lecture 4 hours. Laboratory - 2 hours. Total Contact - 6 hours per week.

General Course Purpose

This course enables students to become familiar with modern diesel engines and fuel systems. Students will be able to perform basic engine diagnostics. This course will replace the existing diesel engine course (DSL 121) in the certificate programs and will become part of the upcoming AAS degree in diesel technology requested by the local diesel repair industry.

Course Prerequisites/Corequisites

None.

Course Objectives

Upon completing the course, the student will be able to:

- Identify components of a modern diesel engine.
- Identify components of a fuel system.
- Perform precision measure on diesel engines.
- Perform diesel engine diagnostic procedures using current diagnostic equipment.

Major Topics to be Included

- Engine Components
- Engine Systems
- Fuel System Components and Operation
- General Engine Diagnostics
- Precision Measuring