Revised 1/2010

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
DSL 155 – HEAVY DUTY SUSPENSION AND SERVICE (3 CR.)

Course Description

Examines suspensions used on heavy-duty trucks and teaches preventative maintenance and service procedures. Includes nomenclature, theory of operation and services, and repair of heavy-duty truck suspension systems including tires and wheels and steering gear and connecting linkage. Provides opportunity for preventative maintenance inspections and service procedures on heavy-duty vehicles. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

General Course Purpose

This course is designed to provide the student with a comprehensive knowledge of medium/heavy-duty truck steering systems, front and rear suspension, front and rear axle alignment, and various types of truck chassis. Emphasis is placed upon suspension inspection, trouble-shooting techniques, repair, and adjustment.

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:

- Explain how a pinion and crown gearset change the direction of powerflow
- Describe how steering and axle alignment affect tire wear, directional stability, and handling.
- Identify the components of the steering system
- Remove and replace various components of the steering system
- Identify and describe the types of suspension systems used on current trucks
- Identify the wheel configurations used on heavy-duty trucks

Major Topics to be Included

- Various types of Heavy-Duty Truck Steering Systems
- Different types of Heavy-Duty Truck wheels configurations
- Fifth wheels and chassis components
- Various types of tires used on Heavy-Duty Trucks
- Steering and alignment diagnosis and repair