DIESEL (DSL)

DSL 111 Introduction to Diesel Engine (2 CR.)
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.
Credit for Prior Learning available for this course. More information at https://www.nvcc.edu/admissions/cpl.html.

DSL 135 Introduction to Diesel Technology (3 CR.)
Introduces careers in the diesel repair industry, safety procedures, tools and equipment used in the industry, and component identification. Teaches preventative maintenance inspections (PMI), precision measuring, and the use of electronic databases for service and repair. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

DSL 137 Basic Diesel Engine Systems (5 CR.)
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.

DSL 141 Transportation Electrical Systems I (2 CR.)
Studies basic operational theory of electrical systems used in public transportation vehicles. Covers electrical symbols, schematics, troubleshooting procedures, as well as the function, construction, and operation of the electrical system and its components. Lecture 2 hours per week.

DSL 143 Diesel Truck Electrical Systems (4 CR.)
Studies the theory and operation of various truck and tractor electrical systems. Covers preheating, starting, generating, and lighting systems. Uses modern test equipment for measurement, adjustment, and troubleshooting. Lecture 2 hours per week. Laboratory 4 hours. Total 6 hours per week.

DSL 145 Medium/Heavy Duty Truck Preventative Maintenance Inspection (3 CR.)
Presents the process of implementing a preventive maintenance program, the various inspection procedures required by the original equipment manufacturers (OEM), federal regulations, and the process of related documentation. Provides preparation for the Automotive Service Excellence (ASE) T8 Preventative Maintenance Inspection certification examination. Lecture - 2 hours. Laboratory - 2 hours. Total Contact - 4 hours per week.

DSL 150 Mobile Hydraulics&Pneumatics (3 CR.)
Introduces the theory, operation and maintenance of hydraulic/pneumatic systems and devices used in mobile applications. Emphasizes the properties of fluid, fluid flow, fluid states and application of Bernoulli's equation. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week

DSL 152 Diesel Power Trains, Chassis, and Suspension (4 CR.)
Studies the chassis, suspension, steering and brake systems found on medium and heavy-duty diesel trucks. Covers construction features, operating principles and service procedures for such power train components as clutches, multi-speed transmissions, propeller shafts, and rear axles. Teaches operations of modern equipment to correct and adjust abnormalities. Lecture 2 hours. Laboratory 4 hours. Total 6 hours per week.

DSL 153 Power Trains I (3 CR.)
Focuses on manual, hydrostatic, and heavy-duty automatic transmissions. Examines various types of power trains and their components, such as multidisc clutch, multi-speed transmissions, torques, drive lines, and differentials. Includes disassembly and assembly of various components. Part I of II. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

DSL 155 Heavy Duty Suspension and Service (3 CR.)
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.

DSL 160 Air Brake Systems (3 CR.)
Studies the basic operational theory of pneumatic and air brake systems as used in heavy-duty and public transportation vehicles. Covers various air control valves, test system components, and advanced air system schematics. Teaches proper service and preventative maintenance of systems. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

DSL 161 Air Brake Systems I (2 CR.)
Studies the basic operational theory of pneumatic and air brake systems used in public transportation vehicles. Covers various air control valves, air and test system components, and advanced air system schematics. Part I of II. Lecture 2 hours per week.

DSL 162 Air Brake Systems II (2 CR.)
Studies the basic operational theory of pneumatic and air brake systems used in public transportation vehicles. Covers various air control valves, air and test system components, and advanced air system schematics. Part II of II. Lecture 2 hours per week.