

# DIESEL TECHNOLOGY (DSL)

## **DSL 1005 Safety**

### **1.0 credit hours**

15.0 Classroom Hours = 15.0 Lecture Hours

Specific safety practices for auto/diesel mechanic shops. (Replaces TRAN 1005.)

## **DSL 1100 Heavy Duty Engine Design & Fund**

### **4.0 credit hours**

120.0 Classroom Hours = 30.0 Lecture Hours + 90.0 Lab Hours

Engine identification and design and function of major components, diesel engine classification and parts identification. Prerequisite:

DSL 1005. Fee \$15.

## **DSL 1115 HD Engine Systems Reconditioning**

### **4.0 credit hours**

150.0 Classroom Hours = 20.0 Lecture Hours + 130.0 Lab Hours

Engine identification and design and function of major components, diesel engine classification and parts identification. Corequisite:

DSL 1115. Fee \$20.

## **DSL 1130 Mechanics Electrical**

### **4.0 credit hours**

120.0 Classroom Hours = 30.0 Lecture Hours + 90.0 Lab Hours

Basic electrical principles, electrical circuits, batteries, charging systems, engine controls. Fee \$20.

## **DSL 1170 Equipment Maintenance**

### **1.0 credit hours**

15.0 Classroom Hours = 15.0 Lecture Hours

Drill sizes, tap and dies, files, pipe and brass fitting, and shop equipment maintenance. Prerequisite: DSL 1005.

## **DSL 1190 Preventive Maintenance**

### **3.0 credit hours**

75.0 Classroom Hours = 30.0 Lecture Hours + 45.0 Lab Hours

Introduces the student to correct procedures and practices of vehicle preventative maintenance and inspections.

## **DSL 1200 Powertrain Repair**

### **4.0 credit hours**

120.0 Classroom Hours = 30.0 Lecture Hours + 90.0 Lab Hours

Design function and repairing of transmissions, axle assemblies, clutches and drivelines. Fee \$15.

## **DSL 1215 Mechanical Hydraulic Systems**

### **4.0 credit hours**

120.0 Classroom Hours = 30.0 Lecture Hours + 90.0 Lab Hours

Hydraulics applied to design and function, troubleshooting and repair. Fee \$15.

## **DSL 1230 Mechanics Air Conditioning**

### **2.0 credit hours**

90.0 Classroom Hours = 10.0 Lecture Hours + 80.0 Lab Hours

Air conditioning and heater system diagnosis and repair procedures. Prerequisite: DSL 1005. Fee \$10.

## **DSL 1250 Applied Welding for Prime Movers**

### **2.0 credit hours**

45.0 Classroom Hours = 22.0 Lecture Hours + 23.0 Lab Hours

Soldering, brazing, gas welding, and cutting torches used in the transportation and prime mover fields.

## **DSL 1270 Hydraulic & Anti-lock Brakes**

### **2.0 credit hours**

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

Theory and application of hydraulic and anti-lock brake systems as used in medium and heavy-duty trucks. Fee \$10.

## **DSL 2300 Fuel Systems & Maintenance**

### **4.0 credit hours**

150.0 Classroom Hours = 15.0 Lecture Hours + 135.0 Lab Hours

The study of fuels, fuel systems and fuel delivery pumps. Proper inspection, maintenance and repair of fuel systems and fuel pumps.

## **DSL 2350 Heavy Duty Suspensions**

### **3.0 credit hours**

75.0 Classroom Hours = 30.0 Lecture Hours + 45.0 Lab Hours

Repair and maintenance of heavy duty suspension systems. Fee \$10.

## **DSL 2360 Diesel Systems Networking Comm/Tele**

### **4.0 credit hours**

150.0 Classroom Hours = 15.0 Lecture Hours + 135.0 Lab Hours

Maintenance of electronic navigation, collision avoidance, and electronic maintenance diagnostics systems. Telematics, data gathering and communications as used in agriculture from planting, fertilizing, pesticide application, irrigation, harvesting, yield monitoring and soil sampling. Along with diagnostics and service indicators on major components engines, transmissions, and systems. Automated services such as variable rating fertilizers, irrigation, and pesticides. Using GPS, geosynchronous orbit, data hub, Bluetooth, and cybernetics to collect store, monitor and transmit data through the use of telematics. Replaces DSL 2318.

## **DSL 2400 Engine Testing**

### **4.0 credit hours**

150.0 Classroom Hours = 15.0 Lecture Hours + 135.0 Lab Hours

Overhaul procedure of major components and subcomponents; run in and troubleshooting procedure for Detroit, Caterpillar and Cummins diesel engines and foreign made engines. Prerequisite: Sophomore standing or permission of instructor. Fee \$15.

## **DSL 2425 Engine Overhaul**

### **3.0 credit hours**

135.0 Classroom Hours = 135.0 Lab Hours

Engine removal and disassembly. Service of cylinder head, valve train, valves, crankshaft, timing gears, engine block, cylinders, rings and connecting rods. Fee \$15.

## **DSL 2440 Electronic Fuel Controls**

### **3.0 credit hours**

75.0 Classroom Hours = 30.0 Lecture Hours + 45.0 Lab Hours

Operational theory, troubleshooting and programming using hand held diagnostic and laptop computers. Fee \$5.

## **DSL 2470 Air & Engine Brakes**

### **2.0 credit hours**

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

Theory, operation and repair of braking systems used in agriculture, trucks and heavy equipment. Fee \$5.

## **DSL 2490 Allison Transmissions**

### **2.0 credit hours**

60.0 Classroom Hours = 15.0 Lecture Hours + 45.0 Lab Hours

Allison automatic transmission design, operation, and overhaul. Prerequisite: DSL 1005 and Sophomore standing. Fee \$5.