
SECTION HEADING

AUTO 2155: Intro to Diesel Electronics

Description

Intro to Diesel Electronics introduces the computer system used in the diagnostics of today's electronic controlled engines and transmissions. Students will develop reports from the programs and store them for future reference and use this information to diagnose and make repairs to the unit being tested. The course will cover basic Windows operations and scanner diagnostics needed to operate the computerized systems.

Credits

4

Prerequisite

None

Corequisite

None

Topics to be Covered

1. Diesel fuel fundamentals
2. Electronic schematics and symbols
3. Original Equipment Manufacturer (OEM) software and diagnostic tools
4. Multi-meters and Oscilloscopes
5. Diagnostic scanners
6. Electrical faults

Learning Outcomes

1. Discuss basic diesel fuel fundamentals, flow, pressure, and components
2. Interpret electronic schematics and symbols
3. Diagnose and troubleshoot fuel related issues
4. Describe proper maintenance procedures for diesel engines
5. Employ OEM software and diagnostic tools and procedures as they related to maintenance and repair
6. Demonstrate the use of a diagnostic scanner to connect to the vehicle's network to read and control components of an electrical system
7. Diagnose electrical faults using the correct tools and explain using correct terminology
8. Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations
9. *The required outcomes follow the Auto Service Technician (AST) model of the National Automotive Technical Education Foundation (NATEF) certification program.

Credit Details

Lecture: 2

Lab: 2

OJT: 0

MnTC Goal Area(s): None