

DIESEL TECHNOLOGY

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DT 100 Shop Practices**.5-4 Credits**

An introduction to hand tool identification and proper use, shop safety, and other topics including screw thread, hydraulic hose, and fitting identification. Also covers measuring devices. Prerequisite: Must have been accepted into the Diesel Technology Program.

DT 101 Basic Diesel Engines**1-6 Credits**

A review of basic engine operation with an emphasis on operating principles, nomenclature, components, and design, and terminology. May be repeated up to 18 credits. Prerequisite: Must have completed DT 100 and a 10-hour OSHA course, and a grade of 'C' or higher in all previous DT or IT courses or have been accepted into the Diesel Technology Program.

DT 102 Basic Vehicle Electronics**1-9 Credits**

A lecture and laboratory course study of AC and DC electricity as used in mobile equipment. Emphasis on charging systems, starting systems, lighting systems, and wiring diagrams. Troubleshooting and repairing of electrical components, electronic controls systems, and voltage drops analysis will be covered. May be taught in modules. Prerequisite: Must have completed DT 100 and a 10-hour OSHA course, and a grade of 'C' or higher in all previous DT or IT courses or have been accepted into the Diesel Technology Program.

DT 105 Mobile Air Conditioning**1-5 Credits**

A lecture and laboratory course covering heating and refrigeration theory. Includes heating and air conditioning components, control systems, service evacuation, charging, overhaul, and replacement of major components. Prerequisite: Must have completed DT 100 and a 10-hour OSHA course, and a grade of 'C' or higher in all previous DT or IT courses or have been accepted into the Diesel Technology Program.

DT 106 Heavy Duty Trans/Power Tr**1-8 Credits**

The theory and operation of heavy equipment power trains will be covered in detail with emphasis on power shift transmissions. Students will become familiar with driveline angle calculations, gear ratios, clutches, differentials, and transmission electronic control systems. May be repeated up to eight credits. Prerequisite: Must have completed DT 100 and a 10-hour OSHA course, and a grade of 'C' or higher in all previous DT or IT courses or have been accepted into the Diesel Technology Program.

DT 201 Diesel Brakes/Pneumatics**2.5 Credits**

The principles of pneumatic brake systems are discussed in detail, with emphasis on cam-operated brakes. Pneumatic brake valves, schematic drawings, and foundation brake troubleshooting will be included in this technical course. Prerequisite: Must have completed DT 100 and a 10-hour OSHA course, and a grade of 'C' or higher in all previous DT or IT courses or have been accepted into the Diesel Technology Program.

DT 215 Electronic Diesel Engines**1-9 Credits**

Designed to give individuals knowledge of electronic diesel engine controls as they apply to major diesel engine manufacturers. Emphasis is placed on engine sensors, electronic injection systems, and engine operating systems. No prerequisite but students having experience with diesel engines and basic electronics will find it helpful. Course may be taught in modules. Prerequisite: Must have completed DT 100 and DT 101 and DT 102 and a 10-hour OSHA course, and a grade of 'C' or higher in all previous DT or IT courses or have been accepted into the Diesel Technology Program.