

## DHM — Diesel Mechanics

### DHM 105 Diesel Engines I 1 - 6 - 3

This course covers the basic study of diesel engine design and operating principles.

### DHM 111 Introduction to Caterpillar 1 - 3 - 2

This course provides instruction and lab experience in shop safety, shop operations and how to obtain caterpillar service information.

### DHM 121 Intro to Diagnostic Testing 2 - 0 - 2

This course is an introduction to basic theory and practical application of diagnostic testing equipment in troubleshooting procedures. Content includes the study of diagnostic software and generic diagnostic readers for all major engine manufacturers.

### DHM 125 Diesel Fuel Systems 1 - 6 - 3

**Corequisites:** DHM 273, DHM 265, DHM 108, DHM 205

This course is a basic study of diesel engine fuel systems including pumps, governors, and injectors.

### DHM 156 Fund of Transmissions & Torque 2 - 3 - 3

**Corequisites:** DHM 255

This course is a study of various transmissions, torque converters, and differentials used in caterpillar equipment, including constant mesh, sliding gear, hydrostatic, and synchromesh and newer transmissions involving planetaries.

### DHM 159 Shop Orientation: Tools, Equip 1 - 6 - 3

This course is the study of shop layout, vehicle lifts, basic hand tools, special tools and equipment, precision measuring tools, and vehicle repair information systems.

### DHM 173 Electrical Systems I 2 - 3 - 3

This course is a study of basic electrical theory as applied to truck and heavy equipment batteries, starters, and alternators.

### DHM 205 Diesel Engines II 1 - 6 - 3

**Prerequisites:** ( DHM 105

**Corequisites:** DHM 273, DHM 265, DHM 108, DHM 125

This course covers the practical application of diesel engine repair, including engine disassembly, unit repair, reassembly, and testing.

### DHM 231 Diesel Air Conditioning 1 - 3 - 2

This course is a study of diesel air conditioning theory, maintenance, troubleshooting, and repair procedures.

### DHM 255 Air Brakes Systems 1 - 6 - 3

**Corequisites:** DHM 156

This course is a study of air compressors, valves, electrical controls and brake designs

### DHM 265 Hydraulic Systems 2 - 3 - 3

**Corequisites:** DHM 273, DHM 108, DHM 125, DHM 205

This course is a study of the theory, application, testing, and repair of diesel and heavy equipment hydraulic systems.

### DHM 273 Electrical Systems II 3 - 0 - 3

**Prerequisites:** ( DHM 173

**Corequisites:** DHM 265, DHM 108, DHM 125, DHM 205

This course covers advanced electrical/electronic controls for diesel trucks and heavy equipment. Troubleshooting and repair techniques are included.

### DHM 275 Hybrid/Electric Drive Systems 2 - 3 - 3

This course is a study of the hybridization of conventional propulsion systems along with the development of battery electric vehicles and their propulsion systems. Parameters of various battery technologies will be addressed.