

DIESEL EQUIPMENT TECHNOLOGY

Programs

- Diesel Engine Performance Certificate in Applied Science (<https://catalog.gvltec.edu/school-advanced-manufacturing-transportation-technology/diesel-equipment-technology/diesel-engine-performance-certificate/>)
- Diesel Equipment Technology Certificate in Applied Science (<https://catalog.gvltec.edu/school-advanced-manufacturing-transportation-technology/diesel-equipment-technology/diesel-equipment-technology-certificate/>)
- Heavy Equipment Auxiliary Systems Certificate in Applied Science (<https://catalog.gvltec.edu/school-advanced-manufacturing-transportation-technology/diesel-equipment-technology/heavy-equipment-auxiliary-systems-certificate/>)

Courses

DHM 101 Introduction to Diesel Engines (3-3-4)

Offered Spring Semester

This course is an introduction to diesel engine design and operation principles.

DHM 105 Diesel Engines I (2-4-3)

Offered Fall Semester

Prerequisites: DHM 101, DHM 125

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

DHM 107 Diesel Equipment, Service & Diagnosis (2-4-3)

Offered Fall Semester

This course is a study of heavy vehicle systems with emphasis on preventive maintenance, problem diagnosis, and repair procedures.

DHM 108 Diesel Engine Tune-Up (1-5-2)

Offered Spring Semester

Co-requisite: DHM 101

This course is a study of diesel engine tune-up principles and practices. Students will explore ways to minimize overall operational costs, as well as the use of aftermarket add-on equipment such as performance electronic computer chips, high output turbochargers, and custom exhaust installation.

DHM 121 Introduction to Diagnostic Testing (1-5-2)

Offered Spring Semester

Co-requisite: DHM 173

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

DHM 125 Diesel Fuel Systems (2-4-3)

Offered Spring Semester

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

DHM 151 Drive Trains (3-3-4)

Offered Summer Semester

This course is a study of the theory and repair of drive train systems.

DHM 155 Power Trains (2-4-3)

Offered Spring Semester

This course covers the theory and repair of transmission drive shafts and differentials.

DHM 171 Introduction to Heavy Equipment Welding (1-6-3)

Offered Summer Semester

This course introduces the proper welding techniques utilized to alter a sub-frame, alter a unit, or add equipment to improve payload space, safety, or location.

DHM 173 Electrical Systems I (2-4-3)

Offered Fall Semester

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 (2-4-3)

Offered Fall Semester

Prerequisite: DHM 105

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

DHM 216 Medium Diesel Engines (2-4-3)

Offered Fall Semester

Prerequisites: DHM 101, DHM 125

This course is the study of major manufacturers' configuration of medium diesel engines, diagnostic adjustment and settings, specific exhaust turbo performance settings, and reassembly techniques.

DHM 225 Electronic Fuel Systems (2-4-3)

Offered Fall Semester

Prerequisite: DHM 125

This course covers the theory and practical application of electronic fuel power systems.

DHM 232 Heating, Cooling, & Air Conditioning Systems (2-4-3)

Offered Summer Semester

This course is an introduction to engine heating and cooling systems used in modern trucks. Various truck and heavy equipment air conditioning systems are explored.

DHM 251 Suspension and Steering (1-6-3)

Offered Summer Semester

This course is a study of steering systems, suspension systems, and basic front-end alignment techniques.

DHM 255 Air Brake Systems (2-4-3)

Offered Fall Semester

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

DHM 262 ABS and TCS Brake Systems (1-5-2)

Offered Spring Semester

Prerequisites: DHM 121, DHM 255

This course is a study of the theory and practical application of ABS (Automatic Braking Systems) and TCS (Traction Control Systems) for truck safety systems.

DHM 265 Hydraulic Systems (2-4-3)

Offered Summer Semester

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

DHM 271 Auxiliary Power Units (1-5-2)

Offered Spring Semester

Prerequisites: DHM 101, DHM 121, DHM 231, DHM 255, DHM 260,
DHM 262

This course is a study of auxiliary power units, including application, placement, installation, and diagnostics.

DHM 272 Trailer Technology (3-3-4)

Offered Spring Semester

Prerequisites: DHM 121, DHM 255, DHM 262

This course is a study of the theory and practical application of service, repair, and maintenance of common road trailer units.

DHM 273 Electrical Systems II (2-4-3)

Offered Fall Semester

Co-requisite: DHM 173

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