

# DIESEL TECHNOLOGY (DEMR)

## **DEMR 1229 Preventative Maintenance 2 Credits (1 Lec, 2 Lab)**

This is an introductory course designed to provide the student with basic knowledge of proper servicing practices. Contents includes record keeping and condition of major systems.

Course Type: Technical

## **DEMR 1301 Shop Safety and Procedures 3 Credits (3 Lec, 0 Lab)**

This is a study of shop safety, rules, basic shop tools, and test equipment.

Course Type: Technical

## **DEMR 1306 Diesel Engine I 3 Credits (2 Lec, 4 Lab)**

This course is an introduction to the basic principles of diesel engines and systems.

Course Type: Technical

## **DEMR 1317 Basic Brake Systems 3 Credits (2 Lec, 4 Lab)**

This course is an introduction to the basic principles of brake systems of diesel powered equipment, with an emphasis on maintenance, repairs, and troubleshooting.

Course Type: Technical

## **DEMR 1405 Basic Electrical Systems 4 Credits (3 Lec, 3 Lab)**

This course is an introduction to basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, batteries, and regulators.

Course Type: Technical

## **DEMR 1410 Diesel Engine Testing and Repair I 4 Credits (3 Lec, 3 Lab)**

This course is an introduction to testing and repairing diesel engines including related systems and specialized tools.

Course Type: Technical

## **DEMR 1413 Fuel Systems 4 Credits (3 Lec, 3 Lab)**

This course is an in-depth coverage of fuel injector pumps and injection systems.

Course Type: Technical

## **DEMR 1421 Power Train I 4 Credits (3 Lec, 3 Lab)**

This course is an introduction to fundamental repair and theory of power trains including clutches, transmissions, drive shafts, and differentials. Emphasis on inspection and repair.

Course Type: Technical

## **DEMR 1423 Heating, Ventilation, and Air Conditioning (HVAC)**

### **Troubleshooting and Repair 4 Credits (3 Lec, 3 Lab)**

This course is an introduction to heating, ventilation, and air conditioning theory, testing and repair, with an emphasis on refrigerant reclamation, safety procedures, specialized tools and repairs.

Course Type: Technical

## **DEMR 2266 Field Experience-Diesel Mechanics 2 Credits (0 Lec, 16 Lab)**

This course offers practical and general workplace training supported by an individual learning plan developed by the employer, college, and student.

Prerequisite(s): 15 credit hours in diesel technology at San Jacinto College

Course Type: Technical

## **DEMR 2334 Advanced Diesel Tune-up and Troubleshooting 3 Credits (2 Lec, 4 Lab)**

This course includes advanced concepts and skills required for tune-up and troubleshooting procedures of diesel engines. Emphasis on the science of diagnostics with a common sense approach.

Course Type: Technical

## **DEMR 2412 Diesel Engine Testing and Repair II 4 Credits (3 Lec, 3 Lab)**

This course is a continuation of Diesel Engine Testing and Repair I.

It includes coverage of testing and repairing diesel engines including related systems and specialized tools.

Course Type: Technical

## **DEMR 2432 Electronic Controls 4 Credits (3 Lec, 3 Lab)**

This course covers advanced skills in diagnostic and programming techniques of electronic control systems.

Course Type: Technical