

DIET –Diesel Equipment Technology

DIET 1000 - Introduction to Diesel Technology, Tools, and Safety
3.000 Credits

Prerequisites: Regular Status

This course introduces basic knowledge and skills the student must have to succeed in the Diesel Equipment Technology field. Topics include an overview of diesel powered vehicles, diesel technology safety skills, basic tools and equipment, reference materials, measuring instruments, shop operation, mechanical fasteners, welding safety, and basic welding skills. Classroom and lab experiences on safety, precision measuring, and basic shop practices are highly emphasized.

DIET 1010 - Diesel Electrical and Electronic Systems
7.000 Credits

This course introduces students to electrical and electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include general electrical system diagnosis, battery diagnosis and repair, starting system diagnosis and repair, charging system diagnosis and repair, lighting system diagnosis and repair, gauges and warning devices, and an introduction and familiarization with electrical and electronic systems.

DIET 1020 – Preventive Maintenance
5.000 Credits

This course introduces preventive maintenance procedures pertaining to medium/heavy duty trucks and heavy equipment. Topics include engine systems, cab and hood, heating, ventilation and air conditioning (HVAC), electrical and electronics, frame, and chassis.

DIET 1030 - Diesel Engines
7.000 Credits

This course introduces diesel engines used in medium/heavy duty trucks and heavy equipment. Topics include general engine diagnosis, cylinder head and valve train, engine block, engine lubrication system, hydraulic pumps, engine cooling, air induction, exhaust, fuel supply systems, electronic fuel management, and engine brakes. Using and interpreting test and measuring equipment is highly emphasized.

DIET 1040 - Diesel Truck and Heavy Equipment HVAC Systems
3.000 Credits

This course introduces systems used in medium/heavy duty trucks and heavy equipment. Classroom instruction on HVAC theory and operation along with local, state, and federal regulations are strongly emphasized. Topics include HVAC safety, HVAC system theory and operation, A/C system component diagnosis and repair, HVAC system diagnosis and repair, HVAC operating systems and related controls, and refrigeration recovery, recycling, and handling procedures.

DIET 2001 - Heavy Equipment Hydraulics
6.000 Credits

This course introduces the student to basic hydraulic fundamentals, components, system servicing, symbols and schematics. The student will learn component operation and service techniques for maintaining a hydraulic system. The student will also learn to identify the ISO symbols used on hydraulic schematics and to trace the hydraulic schematics. Topics include general system operation; basic hydraulic principles; hydraulic system components; hydraulic control valves; load sensing pressure control systems; pilot operated hydraulic system operation; and hydraulic actuators.

DIET 2011 - Off Road Drivelines
6.000 Credits

This course introduces power trains used on heavy equipment such as bulldozers, excavators, wheel loaders, back-hoe loaders and skidders. Classroom and lab instruction on components and systems with use and interpreting testing and diagnosing equipment are highly emphasized. Topics include power train theory and principles, clutches, manual transmissions, drive shafts, differentials, final drives, special drives, final drive failure analysis, torque converters, hydraulically shifted transmissions, electronic transmissions, hydrostatic transmissions, and transmission failure analysis.