

DIESEL SERVICE TECHNOLOGY (DST)

DST 120 - Electrical Systems . 8 Credits.

Offered spring. Offered at Missoula College. The theory of AC/DC electricity including Ohm's Law, magnetism, wiring diagrams, and circuit analysis. Starting, charging, and related systems are covered in-depth using test equipment commonly found in heavy equipment repair facilities. Electronic systems are reviewed and tested using common electronic test equipment.

DST 128 - Engine Service I. 4 Credits.

Offered autumn. Offered at Missoula College. Introduction to the construction and operation of internal combustion engines with the diesel engine being examined in detail. The use of measuring tools and related special tools is covered extensively along with common manufacture rebuild procedures. Start-up and running practices are demonstrated on various running diesel engines. Students must complete this course with a letter grade of C or better to enroll in DST 135 Power Trains the second-half of the semester.

DST 135 - Power Trains. 7 Credits.

Offered autumn. Offered at Missoula College. Chassis and drive train components used in light and heavy-duty trucks and other equipment. Clutches, manual transmissions, differentials, and final drives are covered.

DST 191 - Special Topics. 1-6 Credits.

(R-6) Offered at Missoula College. Experimental offerings of visiting professors, experimental offerings of new courses, or one time offerings of current topics.

DST 192 - Independent Study . 1-6 Credits.

(R-6) Offered at Missoula College. Offered every term. Course material appropriate to the needs and objectives of the individual student.

DST 221 - Brakes, Suspension, and Undercarriage. 6 Credits.

Offered autumn. Offered at Missoula College. Air brake design, construction, and operating principles including an in-depth study of diagnostic procedures for troubleshooting and repairing brake systems. Suspension systems and undercarriage design and repair are covered along with common axle alignment procedures found in industry. Students must complete this course with a letter grade of C or better to enroll in DST 225, Hydraulics in the second-half of the semester.

DST 225 - Hydraulics. 6 Credits.

Offered autumn. Offered at Missoula College. Theory and application of hydraulics relative to mobile construction equipment and industrial hydraulic systems. Includes valves, pumps, motors, actuators, and related hydraulic components, system maintenance, troubleshooting, and repair.

DST 229 - Engine Service II. 7 Credits.

Offered spring. Offered at Missoula College. Prereq., DST 128. A continuation of Engine Service I with a major emphasis placed on the rebuilding of a diesel engine. Engine components repair and failure analysis are reviewed along with tune-up and running of diesel engines commonly found in the heavy equipment trade. Shop flat-rate procedures, work order procedures, and warranty requirements are covered. Students must complete this course with a letter grade of C or better to enroll in DST 230, Air Conditioning in the second-half of the semester.

DST 230 - Air Conditioning. 3 Credits.

Offered spring. Offered at Missoula College. Prereq., DST 120 and DST 225. Principles, theories, and the hazards of working with R-12 and R-34, including laws governing these refrigerants. An in-depth study of the components of an air conditioning system including hands-on practice. Discharging and charging principles are discussed, including leakage testing and other general diagnostic principles found in the field.

DST 231 - Fuel Systems . 5 Credits.

Offered spring. Offered at Missoula College. A comprehensive study of diesel fuel injection systems to include: Cummins, Roosa Master, Caterpillar, Detroit Diesel, and Bosch. Disassembly and repair of these systems are covered in-depth along with calibration practices. Installation, timing, and on-engine adjustments are made on diesel engines. On-engine diagnosis of the fuel systems using special diesel engine diagnostic tools is reviewed.

DST 235 - Advanced Power Trains. 2 Credits.

Offered spring. Offered at Missoula College. Prereq., DST 135. A continuation of DST 135 with an emphasis on heavy automatic transmission, torque converters, and powershift transmission. In-depth coverage of component review troubleshooting and repair.

DST 298 - Diesel Technology Internship. 1-6 Credits.

Prereq., consent of department. Extended classroom experience which provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor and the Internship Services office. A maximum of 6 credits of Internship (198, 298, 398, 498) may count toward graduation.