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## Diesel Technology (DT)

### **DT 050 State Laws and Fed Regulations (3)**

*Class Hours: 54 Lecture*

State Laws and Federal Regulations

DT 050 provides students with an understanding of California and federal motor vehicle traffic laws, highway traffic regulations, and driver's license laws needed to understand and demonstrate the ability to drive in accordance with laws and regulations.

### **DT 052 Safe Operation Fundamentals (2)**

*Class Hours: 108 Laboratory*

Safe Operation Fundamentals

DT 052 provides practical and theoretical instruction in the techniques needed to drive defensively and prevent accidents in spite of the incorrect actions of others and adverse conditions. Students are prepared to recognize and perform first aid treatment in dealing with major emergencies, both medical and accidental. The course also explains and demonstrates safe practices in using and selecting proper tools for the job, both in the shop and on the road.

### **DT 053 Fork Lift Operations (1)**

*Class Hours: 54 Laboratory*

Fork Lift Operations

DT 053 provides practical and theoretical training in the operation of material handling equipment (forklift and pallet jack) and how it works. Student receives training while driving on a planned course, loading and unloading commercial vehicles and load securement, with a continuous emphasis on safe driving and operation. Students also develop their skills in minor maintenance for good pre-trip and post-trip inspection.

### **DT 055 Trip Planning and Budgeting (3)**

*Class Hours: 54 Lecture*

Trip Planning and Budgeting

DT 055 provides student with practical and theoretical training related to the planning of trips using a Rand McNally Road Atlas and finding the most effective and efficient routing between pickup and delivery points. The course will also include a review of basic math and industry math applications.

### **DT 057 Job Prep Skills (1)**

*Class Hours: 18 Lecture*

Job Prep Skills

DT 057 provides information on how to find available positions as well as improve job-seeking skills in order to apply for, and interview with both small and large transportation companies. Additionally, it provides information and resources on how to prepare appropriate documents (application, resume, and cover letter) for job search and to assist in the interview process.

### **DT 058 Operations of Commercial Vehic (3)**

*Class Hours: 18 Lecture | 108 Laboratory*

Operations of Commercial Vehicles I

DT 058 provides practical and theoretical knowledge in the operation of two- and three-axle tractor trailer combinations on a driving range and highway. Student will develop the hand, eye, and foot coordination for shifting a 10-speed dual-range transmission. Additionally students will be oriented in California state laws pertaining to a commercial motor vehicle, which prepares them for the CDL Skills and Knowledge Test for the Class A license.

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**DT 059 Operations of Commercial Vehi (3)**

*Class Hours: 162 Laboratory*

*Prerequisite(s): DT 058*

Operations of Commercial Vehicles II

DT 059 provides practical and theoretical knowledge in the operation of five-axle commercial vehicles with a GVWR of 80,000 lbs. and lengths over 65 feet, including single and double trailers. Students will learn to operate various types of dual-range transmissions on the driving range and in real-life city and highway traffic. Students will receive 2,000 - 2,500 miles of road experience with empty and loaded trailers.

**DT 074 Hazardous Materials Transporta (1)**

*Class Hours: 18 Lecture*

Hazardous Materials Transportation

DT 074 provides theoretical training for the transportation of hazardous materials and satisfies the Federal Motor Carriers Entry Level Drivers Training requirement.

**DT 094 Introduction to Diesel Engine (3)**

*Class Hours: 36 Lecture | 54 Laboratory*

Introduction to Diesel Engine Repair

DT 094 explores the operation and repair of modern diesel engines. Principles and theories are studied by running, testing, diagnosing, disassembling and reassembling components, systems and engines.

**DT 095 Advanced Diesel Engine Repair (3)**

*Class Hours: 36 Lecture | 54 Laboratory*

*Prerequisite(s): DT 094*

Advanced Diesel Engine Repair

DT 095 explores the operation and repair of modern computer controlled diesel engines, emissions systems and components. Advanced principles and theories are studied by testing, diagnosing, disassembling and reassembling engine components and systems.

**DT 096 Hydraulics (3)**

*Class Hours: 36 Lecture | 54 Laboratory*

Hydraulics

DT 096 explores the operation and repair of agriculture and industrial heavy equipment hydraulic systems; pumps, valves, cylinders, motors, hydrostatic drives, hoses and fittings as well as electronic controls. Advanced principles and theories operation, pressure and flow are studied by testing, diagnosing, disassembling, repairing and reassembling heavy equipment hydraulic components and systems.

**DT 097 Equipment Systems (3)**

*Class Hours: 36 Lecture | 54 Laboratory*

Equipment Systems

DT 097 explores the operation and repair of agriculture and industrial heavy equipment systems including: drive systems, brakes and braking, tracks and tires, auxiliaries, air conditioning, electronics, and computer controls. Advanced principles and theories are studied by testing, diagnosing, disassembling, repairing and reassembling heavy equipment components and systems.

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