

Mountain West Commercial Driving School

Training Outline

Entry-level driver training requirements

§ 380.503 Entry-level driver training requirements.

Entry-level driver training must include instruction addressing the following four areas:

- (a) **Driver qualification requirements.** *The Federal rules on medical certification, medical examination procedures, general qualifications, responsibilities, and disqualifications based on various offenses, orders, and loss of driving privileges (part 391, subparts B and E of this subchapter).*
- (b) **Hours of service of drivers.** *The limitations on driving hours, the requirement to be off-duty for certain periods of time, record of duty status preparation, and exceptions (part 395 of this subchapter). Fatigue countermeasures as a means to avoid crashes.*
- (c) **Driver wellness.** *Basic health maintenance including diet and exercise. The importance of avoiding excessive use of alcohol.*
- (d) **Whistleblower protection.** *The right of an employee to question the safety practices of an employer without the employee's risk of losing a job or being subject to reprisals simply for stating a safety concern (29 CFR part 1978).*

Required knowledge and skills

§ 383.111 Required knowledge.

(a) All CMV operators must have knowledge of the following 20 general areas:

- (1) **Safe operations regulations.** Driver-related elements of the regulations contained in parts 391, 392, 393, 395, 396, and 397 of this subchapter, such as:
 - (i) Motor vehicle inspection, repair, and maintenance requirements;
 - (ii) Procedures for safe vehicle operations;
 - (iii) The effects of fatigue, poor vision, hearing impairment, and general health upon safe commercial motor vehicle operation;
 - (iv) The types of motor vehicles and cargoes subject to the requirements contained in part 397 of this subchapter; and
 - (v) The effects of alcohol and drug use upon safe commercial motor vehicle operations.
- (2) **Safe vehicle control systems.** The purpose and function of the controls and instruments commonly found on CMVs.
- (3) **CMV safety control systems.**
 - (i) Proper use of the motor vehicle's safety system, including lights, horns, side and rear-view mirrors, proper mirror adjustments, fire extinguishers, symptoms of improper operation revealed through instruments, motor vehicle operation characteristics, and diagnosing malfunctions.
 - (ii) CMV drivers must have knowledge of the correct procedures needed to use these safety systems in an emergency situation, e.g., skids and loss of brakes.

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- (4) **Basic control.** The proper procedures for performing various basic maneuvers, including:
 - (i) Starting, warming up, and shutting down the engine;
 - (ii) Putting the vehicle in motion and stopping;
 - (iii) Backing in a straight line; and
 - (iv) Turning the vehicle, e.g., basic rules, off tracking, right/left turns and right curves.

- (5) **Shifting.** The basic shifting rules and terms for common transmissions, including:
 - (i) Key elements of shifting, e.g., controls, when to shift, and double clutching;
 - (ii) Shift patterns and procedures; and
 - (iii) Consequences of improper shifting.

- (6) **Backing.** The procedures and rules for various backing maneuvers, including:
 - (i) Backing principles and rules; and
 - (ii) Basic backing maneuvers, e.g., straight-line backing, and backing on a curved path.

- (7) **Visual search.** The importance of proper visual search, and proper visual search methods, including:
 - (i) Seeing ahead and to the sides;
 - (ii) Use of mirrors; and
 - (iii) Seeing to the rear.

- (8) **Communication.** The principles and procedures for proper communications and the hazards of failure to signal properly, including:
 - (i) Signaling intent, e.g., signaling when changing direction in traffic;
 - (ii) Communicating presence, e.g., using horn or lights to signal presence; and
 - (iii) Misuse of communications.

- (9) **Speed management .**The importance of understanding the effects of speed, including:
 - (i) Speed and stopping distance;
 - (ii) Speed and surface conditions;
 - (iii) Speed and the shape of the road;
 - (iv) Speed and visibility; and
 - (v) Speed and traffic flow.

- (10) **Space management .** The procedures and techniques for controlling the space around the vehicle, including:
 - (i) The importance of space management;
 - (ii) Space cushions, e.g., controlling space ahead/to the rear;
 - (iii) Space to the sides; and
 - (iv) Space for traffic gaps.

- (11) **Night operation.** Preparations and procedures for night driving, including:
 - (i) Night driving factors, e.g., driver factors (vision, glare, fatigue, inexperience);
 - (ii) Roadway factors (low illumination, variation in illumination, unfamiliarity with roads, other road users, especially drivers exhibiting erratic or improper driving); and
 - (iii) Vehicle factors (headlights, auxiliary lights, turn signals, windshields and mirrors).

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(12) **Extreme driving conditions.** The basic information on operating in extreme driving conditions and the hazards encountered in such conditions, including:

- (i) Bad weather, e.g., snow, ice, sleet, high wind;
- (ii) Hot weather; and
- (iii) Mountain driving.

(13) **Hazard perceptions.** The basic information on hazard perception and clues for recognition of hazards, including:

- (i) Road characteristics; and
- (ii) Road user activities.

(14) **Emergency maneuvers.** The basic information concerning when and how to make emergency maneuvers, including:

- (i) Evasive steering;
- (ii) Emergency stop;
- (iii) Off road recovery;
- (iv) Brake failure; and
- (v) Blowouts.

(15) **Skid control and recovery.** The information on the causes and major types of skids, as well as the procedures for recovering from skids.

(16) **Relationship of cargo to vehicle control.** The principles and procedures for the proper handling of cargo, including:

- (i) Consequences of improperly secured cargo, drivers' responsibilities, and Federal/State and local regulations;
- (ii) Principles of weight distribution; and
- (iii) Principles and methods of cargo securement.

(17) **Vehicle inspections.** The objectives and proper procedures for performing vehicle safety inspections, as follows:

- (i) The importance of periodic inspection and repair to vehicle safety.
- (ii) The effect of undiscovered malfunctions upon safety.
- (iii) What safety-related parts to look for when inspecting vehicles, e.g., fluid leaks, interference with visibility, bad tires, wheel and rim defects, braking system defects, steering system defects, suspension system defects, exhaust system defects, coupling system defects, and cargo problems.
- (iv) Pre-trip/enroute/post-trip inspection procedures.
- (v) Reporting findings.

(18) **Hazardous materials.** Knowledge of the following:

- (i) What constitutes hazardous material requiring an endorsement to transport;
- (ii) Classes of hazardous materials;
- (iii) Labeling/placarding requirements; and
- (iv) Need for specialized training as a prerequisite to receiving the endorsement and transporting hazardous cargoes.

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(19) **Mountain driving.** Practices that are important when driving upgrade and downgrade, including:

- (i) Selecting a safe speed;
- (ii) Selecting the right gear; and
- (iii) Proper braking techniques.

(20) **Fatigue and awareness.** Practices that are important to staying alert and safe while driving, including:

- (i) Being prepared to drive;
- (ii) What to do when driving to avoid fatigue;
- (iii) What to do when sleepy while driving; and
- (iv) What to do when becoming ill while driving.

(b) Air brakes. All CMV drivers operating vehicles equipped with air brakes must have knowledge of the following 7 areas:

(1) **General air brake system nomenclature;**

(2) **The dangers of contaminated air supply (dirt, moisture, and oil);**

(3) **Implications of severed or disconnected air lines between the power unit and the trailer(s);**

(4) **Implications of low air pressure readings;**

(5) **Procedures to conduct safe and accurate pre-trip inspections, including knowledge about:**

- (i) Automatic fail-safe devices;
- (ii) System monitoring devices; and
- (iii) Low pressure warning alarms.

(6) **Procedures for conducting en route and post-trip inspections of air-actuated brake systems, including:**

- (i) Ability to detect defects that may cause the system to fail;
- (ii) Tests that indicate the amount of air loss from the braking system within a specified period, with and without the engine running; and
- (iii) Tests that indicate the pressure levels at which the low air pressure warning devices and the tractor protection valve should activate.

(7) **General operating practices and procedures, including:**

- (i) Proper braking techniques;
- (ii) Antilock brakes;
- (iii) Emergency stops; and
- (iv) Parking brake.

(c) Combination vehicles. All CMV drivers operating combination vehicles must have knowledge of the following 3 areas:

(1) **Coupling and uncoupling—The procedures for proper coupling and uncoupling a tractor to a semi-trailer;**

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(2) **Vehicle inspection**—The objectives and proper procedures that are unique for performing vehicle safety inspections on combination vehicles; and

(3) **General operating practices and procedures, including:**

- (i) Safely operating combination vehicles; and
- (ii) Air brakes.

[76 FR 26888, May 9, 2011]

Required knowledge and skills

§ 383.113 Required skills.

(a) Pre-trip vehicle inspection skills .Applicants for a CDL must possess the following basic pre-trip vehicle inspection skills for the vehicle class that the driver operates or expects to operate:

(1) **All test vehicles.**

Applicants must be able to identify each safety-related part on the vehicle and explain what needs to be inspected to ensure a safe operating condition of each part, including:

- (i) Engine compartment;
- (ii) Cab/engine start;
- (iii) Steering;
- (iv) Suspension;
- (v) Brakes;
- (vi) Wheels;
- (vii) Side of vehicle;
- (viii) Rear of vehicle; and
- (ix) Special features of tractor trailer, school bus, or coach/transit bus, if this type of vehicle is being used for the test.

(2) **Air brake equipped test vehicles.**

Applicants must demonstrate the following skills with respect to inspection and operation of air brakes:

- (i) Locate and verbally identify air brake operating controls and monitoring devices;
- (ii) Determine the motor vehicle's brake system condition for proper adjustments and that air system connections between motor vehicles have been properly made and secured;
- (iii) Inspect the low pressure warning device(s) to ensure that they will activate in emergency situations;
- (iv) With the engine running, make sure that the system maintains an adequate supply of compressed air;
- (v) Determine that required minimum air pressure build up time is within acceptable limits and that required alarms and emergency devices automatically deactivate at the proper pressure level; and
- (vi) Operationally check the brake system for proper performance.

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(b) Basic vehicle control skills. All applicants for a CDL must possess and demonstrate the following basic motor vehicle control skills for the vehicle class that the driver operates or expects to operate:

- (1) Ability to start, warm up, and shut down the engine;
- (2) Ability to put the motor vehicle in motion and accelerate smoothly, forward and backward;
- (3) Ability to bring the motor vehicle to a smooth stop;
- (4) Ability to back the motor vehicle in a straight line, and check path and clearance while backing;
- (5) Ability to position the motor vehicle to negotiate safely and then make left and right turns;
- (6) Ability to shift as required and select appropriate gear for speed and highway conditions; and
- (7) Ability to back along a curved path.

(c) Safe on-road driving skills. All applicants for a CDL must possess and demonstrate the following safe on-road driving skills for their vehicle class:

- (1) Ability to use proper visual search methods;
- (2) Ability to signal appropriately when changing direction in traffic;
- (3) Ability to adjust speed to the configuration and condition of the roadway, weather and visibility conditions, traffic conditions, and motor vehicle, cargo and driver conditions;
- (4) Ability to choose a safe gap for changing lanes, passing other vehicles, as well as for crossing or entering traffic;
- (5) Ability to position the motor vehicle correctly before and during a turn to prevent other vehicles from passing on the wrong side, as well as to prevent problems caused by off-tracking;
- (6) Ability to maintain a safe following distance depending on the condition of the road, visibility, and vehicle weight;
- (7) Ability to adjust operation of the motor vehicle to prevailing weather conditions including speed selection, braking, direction changes, and following distance to maintain control; and
- (8) Ability to observe the road and the behavior of other motor vehicles, particularly before changing speed and direction.

[76 FR 26889, May 9, 2011]

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Additional Training Not Required by Federal Regulation

(1) Map Reading and Trip Planning

- a. Principles of reading maps
- b. Computer based map and trip planning i.e., google maps
- c. Fuel costs
- d. Meal costs
- e. Time management

(2) Tire Chaining

- a. Fundamentals to properly chain a commercial motor vehicle
- b. Recognize road and weather conditions to ensure safety to self, vehicle, and other motorist.

(3) Brake Adjustment

- a. Manual and Self-Adjusting
- b. Proper technique in adjusting brakes and when to adjust

(4) Defensive Driving Course Designed for The Professional Truck Driver. Nationally Recognized through National Safety Council. MWCDS is an approved Training Center.

- a. Recognizing the Risks of Hazardous Driving Behaviors and Conditions
- b. How to Defend against the risks of hazardous behaviors and conditions