

STRANDS AND STANDARDS

COMMERCIAL DRIVER PREP



Course Description

The Commercial Driver course follows the Utah Commercial Driver License Handbook and Driver Manual, 2017 edition. This course introduces students to the Commercial Driving career and helps students in attaining knowledge and skills to prepare students to pass the Commercial Driver License Instruction Permit. This course will cover topics discussing driving safely, transporting cargo, air brakes, and combination vehicles.

Intended Grade Level	11-12
Units of Credit	0.5
Core Code	40.11.00.00.110
Concurrent Enrollment Core Code	40.11.00.11.110
Prerequisite	N/A
Skill Certification Test Number	N/A
Test Weight	N/A
License Area of Concentration	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	N/A
Endorsement 2	N/A
Endorsement 3	N/A

STRAND 1

Students will understand the importance of vehicle classifications, certifications, licensing, Motor Vehicle Records (MVR), International Registration Plans (IRP), and International Fuel Tax Agreement (IFTA)

Standard 1

Differentiate vehicles and their respective classes.

- Class A: Combination Vehicles
- Class B: Heavy Straight Vehicles
- Class C: Small Vehicles

Standard 2

Explain the process and requirements for obtaining a Commercial Driver License and endorsements.

Standard 3

Understand the role of self-certifications.

Standard 4

Demonstrate knowledge of the importance of Motor Vehicle Records (MVR) and their impact on professionalism and rights to operate vehicles.

- Serious Traffic Violations
- Out-of-Service orders
- Railroad-highway grade crossing violations
- Hazardous materials endorsement
- Background checks and disqualifications
- Traffic violations in personal vehicle and other CDL rules

Standard 5

Identify the International Registration Plan (IRP) and its relation to International Fuel Tax Agreement (IFTA)

STRAND 2

Students will use safety concepts to solve real-world scenarios that may be encountered on the road while driving as a Commercial Driver.

Standard 1

Summarize vehicle inspections and their relation to driving safely.

- Why inspect
- Types of inspections (before, during, and after trips)
- Filing reports
- CDL Vehicle Inspection Test
- Seven-Step Inspection Method
- Vehicle Inspection Guide

Standard 2

Demonstrate safety in basic control of a vehicle.

- Accelerating
- Steering
- Stopping
- Backing up

Standard 3

Describe processes for shifting gears and their relation to vehicle control.

- Manual Transmissions
- Multi-speed Rear Axles and Auxiliary Transmissions
- Automatic Transmissions
- Retarders

Standard 4

Explain how to use sight while driving to avoid accidents and hazards.

- Seeing ahead
- Seeing to the sides and rear

Standard 5

Demonstrate safe communication while driving

- Signaling
- Hazard lights/emergency flashers
- Braking early
- Utilize horns or headlights appropriately

Standard 6

Control vehicle speeds in response to roadways and conditions.

- Stopping distance
- Matching speed to the road surface
- Speed and curves
- Speed and distance ahead
- Speed and traffic flow
- Speed on downgrades
- Roadway work zones

Standard 7

Manage appropriate space around the vehicle in various situations

- Ahead
- Behind
- Overhead
- Below
- Turns
- Crossing or entering traffic

Standard 8

Identify and react appropriately to various road hazards

- Importance of seeing hazards
- Hazardous roads
- Drivers who are hazards
- Always have a plan

Standard 9

Discuss the causes and effects of distracted driving

- Distracted driving statistics
- Effects of distracted driving
- Types of distractions
- Cell/mobile phones
- Texting
- Eliminate distractions
- Awareness of other distracted drivers

Standard 10

Discuss ways to appropriately avoid and respond to aggressive drivers and road rage.

Standard 11

Identify the hazards and procedures of night driving

- Increase of danger
- Human factors
- Roadway factors
- Vehicle factors
- Proper driving procedures

Standard 12

Identify the hazards and procedures of winter driving

- Increase of danger
- Human factors
- Roadway factors
- Vehicle factors
- Vehicle inspections
- Proper driving procedures

Standard 13

Identify the hazards and procedures of driving in extreme heat

- Increase of danger
- Human factors
- Roadway factors
- Vehicle factors
- Vehicle inspections
- Proper driving procedures

Standard 14

Assess a railroad crossing and employ proper vehicle crossing procedures

- Types of crossings
- Warning signs and devices
- Driving procedures
- Stopping safely at railroad-highway crossings
- Special situations

Standard 15

Identify the hazards and procedures of mountain driving

- “Safe” speeds
- Proper gear utilization
- Brake fading or failure
- Proper braking techniques

Standard 16

Investigate ways to appropriately respond to driving emergencies and situations

- Steering to avoid a crash
- Stopping quickly and safely
- Brake failure
- Tire failure

Standard 17

Illustrate how the Antilock Braking System (ABS) works

- Vehicles required to have ABS
- How to know if you are equipped with ABS
- How ABS helps
- ABS on the tractor only or only on the trailer
- Braking with ABS
- Braking if ABS is not working
- Safety reminders

Standard 18

Explain the causes of a skid and how to recover from one

- Drive-wheel skids
- Correcting a drive-wheel braking skid
- Front-wheel skids

Standard 19

List appropriate actions to be taken after an accident occurs

- Protect the area
- Notify authorities
- Care for the injured

Standard 20

Explain the causes, prevention, and handling of vehicle fires

- Causes
- Prevention
- Fire fighting techniques

Standard 21

Discuss the effects of alcohol, other drugs, and illness and their impacts on driving

Standard 22

Identify various hazardous materials and appropriate rules for transporting them

- What hazardous materials are
- Why there are rules
- Regulated products

Performance Skills

- Visit a school or entity listed on the FMCSA (Federal Motor Carrier Safety Administration) training provider registry where a qualified instructor can introduce students to a physical semi truck.

STRAND 3

Students will demonstrate appropriate transportation of cargo through inspections, weight and balance, and securing loads.

Standard 1

Demonstrate an appropriate cargo inspection

- Before a trip
- After starting
- Re-check

Standard 2

Investigate appropriate methods for distributing weight and balance on a load

- Gross Vehicle Weight Rating (GVWR)
- Gross Combination Weight Rating (GCWR)
- Legal weight limits
- Top-heaviness
- Balance and weight

Standard 3

Demonstrate proper cargo securing procedures

- Blocking and bracing
- Cargo tie-down
- Header boards
- Covering cargo
- Sealed and containerized loads

Standard 4

Identify cargo needing special attention and proper methods for securing them.

- Dry bulk
- Hanging meat
- Livestock
- Oversized loads

Performance Skills

- Visit a school or entity listed on the FMCSA (Federal Motor Carrier Safety Administration) training provider registry where a qualified instructor can introduce students to a physical load securement on a semi truck.

STRAND 4

Students will identify the function and proper use of air brakes and dual brake systems.

Standard 1

Illustrate the parts and function of an air brake system

- Air compressor
- Air compressor governor
- Air storage tanks
- Air tank drains
- Alcohol evaporator
- Safety valve
- Brake pedal
- Foundation brakes
- Supply pressure gauges
- Application pressure gauge
- Low air pressure warning
- Stop light switch
- Front brake limiting valve
- Spring brakes
- Parking brake controls
- Antilock Braking Systems (ABS)

Standard 2

Identify the function and use of a Dual Air Brake

Standard 3

List the steps to inspecting an Air Brake System

Standard 4

Demonstrate proper methods for using air brakes

- Normal stops
- Braking with Antilock Brakes
- Emergency stops
- Stopping distance
- Brake fading or failure
- Proper braking techniques
- Low air pressure
- Parking brakes

Performance Skills

- Visit a school or entity listed on the FMCSA (Federal Motor Carrier Safety Administration) training provider registry where a qualified instructor can introduce students to a physical air brake system on a semi truck.

STRAND 5

Students will demonstrate knowledge on combination vehicles

Standard 1

Explain combination vehicles and proper safety procedures for driving them.

- Rollover risks
- Steer gently
- Brake early
- Railroad-highway crossings
- Prevention of trailer skids
- Turn wide
- Backing with trailer

Standard 2

Identify parts and functions of combination vehicle air brakes

- Trailer hand valve
- Tractor protection valve
- Trailer air supply control
- Trailer air-lines
- Hose couplers (Glad Hands)
- Trailer air tanks
- Shut-off valves
- Trailer service, parking and emergency brakes

Standard 3

Explain Antilock Brake Systems (ABS) use on trailers

- Trailers required to have ABS
- Braking with ABS

Standard 4

List the steps for proper coupling and uncoupling of trailers

- Coupling tractor-semitrailers
- Uncoupling tractor-semitrailers
- Coupling a Pintle Hook
- Uncoupling a Pintle Hook

Standard 5

List the proper procedure steps for inspecting a combination vehicle

- Additional things to check during a walk-around inspection
- Combination vehicle brake check

Performance Skills

- Visit a school or entity listed on the FMCSA (Federal Motor Carrier Safety Administration) training provider registry where a qualified instructor can introduce students to a physical coupling system on a semi truck.

Skill Certification Test Points by Strand

Test Name	Test #	Number of Test Points by Strand										Total Points	Total Questions
		1	2	3	4	5	6	7	8	9	10		