

Professional Truck Driver Training Handbook

Instructor

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Office Hours

7:30 am – 4:30pm,
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Course Overview

This course is designed to prepare an individual for a career as a professional commercial truck driver. This course will take the student beyond just the requirements for a Commercial Driver's Licenses and propel them into the world of a commercial motor vehicle driver with proficiency, safety, and professionalism.

Required Text

CDL Manual

Bumper to Bumper- The complete guide to tractor-trailer operations

Course Materials

The following materials will be needed for this course.

- Leather work gloves
- Long pants (no short or skirts).
- Closed toed shoes

(Optional clothing):

- Coveralls
- Rain jacket

Resources

The following resources will be utilized during this course of study.

- Text book
- Blackboard
- Videos
- Classroom instruction
- Hands on instruction

Courses Include Entry-Level Driver Training and Professional Driving

Topic

An Introduction to Trucking

- The U.S. Trucking Industry:
A Brief History
- The North American Trucking Industry Today
- How the U.S. Trucking Industry Is Regulated
- U.S. Federal and State Regulating Agencies
- Commercial Motor Vehicles
- Becoming a Professional Drivers
- Professional Drivers and Safety

The Commercial Driver's License

- Commercial Motor Vehicle Safety Act of 1986
- The Driver and the U.S. Commercial Driver's License
- Information Required on the CDL
- The U.S. Motor Carrier Improvement Act of 1999
- The State
- Rules Added in 2012
- CDL Knowledge and Skills Test
- Other Requirements
- Violations
- Once You Have a CDL

Control Systems

- Vehicle Controls
- Vehicle Instruments
- Key Terms

Vehicle Systems

- Frame, Suspension Systems, and Axles
 - Engines
 - Computer Management Systems
 - Fuel Systems
 - Air Intake and Exhaust Systems
 - Lubrication System
 - Coolant System
 - Electrical System
 - Drivetrain
 - Roll Stability Systems
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Vehicle Systems Cont'd

- Transmission
- Drive shafts and Universal Joints
- Differential
- Wheels
- Mounting System
- Tires
- Tread Design and Wheel Position
- Normal Tire Inflation
- Steering Systems
- Coupling Systems
- Other Coupling Devices

Vehicle Inspections

- Pre-trip, In Route, and Post-trip Inspections
- What Makes a Good Inspection Great?
- Tire Inspection
- Inspecting Mud Flaps/Splash Guards
- Braking Systems Inspection
- Steering System Inspection
- Suspension System Inspection
- Exhaust System Inspection
- Coupling System Inspection
- Cargo Inspection
- Steps for a Pre-trip Inspection
- In Route and Post-trip Inspections
- Driver's Vehicle Inspection Report (DVIR)

Hazardous Materials

- The Hazmat CDL Endorsement
 - The Shipper's Role in Hazardous Material Handling
 - The Carrier's Responsibility in Handling Hazardous Materials
 - The Driver's Responsibility in Handling Hazardous Materials
 - The Hazard Class
 - How to Use the Hazardous Materials Table
 - What Drivers Should Know About Shipping Papers
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- The Hazardous Material Manifest
- Mixed Shipments of Non-hazmat and Hazmat Cargos
- When Hazmat is Involved in an Accident
- Hazmat Emergencies
- Other Information Needed When Hauling Hazmat
- Security Measures for Hazmat Loads
- TSA Hazmat Contact Information
- North American Environmental Considerations

CDL Permit Preparation

Basic Control

- How to Safely Enter and Exit a Cab
- Start, Warm-Up, and Shutdown Routines
- Putting the Vehicle in to Motion – and Stopping
- Backing in a Straight Line
- Turning a Commercial Vehicle
- Range Practice

Transportation Technology

- A Brief History of Trucking Technology
- ELD's
- Tracking Devices
- Global Positioning Systems and the FHWA
- Electronic Payment
- Fuel Management and Reporting
- Communication
- Regulatory Compliance

Coupling and Uncoupling

- The Coupling Sequence
- Step-by-Step Uncoupling Procedure
- Coupling Twin Trailers
- Uncoupling Double Trailers
- Coupling and Uncoupling Triple Trailers
- Coupling and Uncoupling Other Combinations
- Additional Items for Walk-around Inspection

Backing and Docking Backing

Principles and Rules of Backing

- Safety Rules When Backing
- General Backing Rules
- Basic Backing Maneuvers

Shifting

- Shift Controls
- Understanding Shifting: The Difference between Torque and Power
- Non-synchronized Transmissions
- Aids to Shifting
- Shifting Patterns and Procedures
- Shifting Semiautomatic Transmissions
- Shifting Fully Automatic Transmissions

Sliding Fifth Wheels and Tandem Axles

- Shifting Weight
- The Bridge Formula
- Maneuverability and Off-Tracking
- The Fifth Wheel
- Sliding the Fifth Wheel
- Trailer Tandem Axles

Railroad Crossings

- Operation Lifesaver
- Active versus Passive Railroad Crossings
- Driver Distractions and Passive Rail Crossings
- Warnings to Heed
- Other Devices
- What Every Driver Needs to Know About Railroad Crossings
- Rail Safety Tips for Emergency Response Vehicle Drivers

Hazard Awareness

- What Is a Hazard
- Commentary Driving and Hazard Perception
- Learning to Recognize Hazards
- Sources of Clues

Hours of Service

- New U.S. Hours of Service Rules – 9/29/2020
- Record of Duty Status
- Penalties

Trip Planning

- Types of Driving Runs and Assignments
- Route Selection
- Map Reading
- Calculating Travel Time and Fuel Usage
- Keeping Records
- Trip Planning Software
- Vehicle Licensing and Permits
- Federal Lengths and Weight Limits
- State Limits
- Roadside Enforcement
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Preventive Maintenance and Servicing

- Preventive Maintenance
- Types of Maintenance
- Federal Motor Vehicle Inspection and Maintenance Requirements
- Driver's Vehicle Inspection Report (DVIR)
- Basic Service and Routing Maintenance
- Checking Tire Air Pressure
- Draining the Air Reservoirs
- Adjusting the Tractor-Trailer Brakes

Recognizing and Reporting Malfunctions

- Diagnosing and Reporting Malfunctions
- Problem-Solving Exercises
- Emergency Starting Procedures

Communications

- Eye Contact
- Road Rage
- Signal Your Intent to Other Drivers
- Signaling
- Communicating Your Presence
- Using Cell Phone Safety

- Avoiding Distracted Driving

Visual Search

- The Driver's View
- Focusing on the Road Ahead
- Sight and Decisions
- Scanning and the Visual Search
- The Visual Search at Night
- Field of View
- Mirrors

Space Management

- The Importance of Space Management
- Space Ahead
- Space Behind
- Space to the Sides
- Space Overhead
- Space Below
- Space for Turns
- Space to Cross or Enter Traffic

Speed Management

- Speed Management Terminology
- Speed and Stopping Distance
- Driving on Various Road Surfaces
- Taking Curves Safely
- Driving on Hills
- The Safe Use of Cruise Control on Your Rig
- Work Zone Driving Safety
- How Far Can You See?
- Speed and Traffic

Night Driving

- Night Driving Factors
- Night Driving Procedures
- Night Driving Adjustments

Extreme Driving Conditions

- Extreme Weather
- Starting Your Engine in Cold Weather

- An Engine That Will Not Start
 - Bad Weather Operating Hazards
 - Driving in Bad Weather
 - Driving in Hot Weather
 - Driving in the Desert
 - Mountain Driving
 - Auxiliary Brakes and Speed Retarders
 - Escape Ramps
 - Driving in High Winds
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Skid Control

- Vehicle Control Factors
- Causes of Skids
- Preventing Skids
- Tractor-Trailer Skids
- What is Threshold Braking?
- Antijackknife Devices
- Antilock Brakes
- Skid Recovery

Emergency Maneuvers

- Avoiding Emergencies
 - Emergency Maneuvers
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Accident Procedures

- When an Accident Occurs
- Giving First Aid
- Fires and Firefighting
- Fire Extinguishers
- Additional Information About Truck Fires

(Optional - First Aid Procedures)

Handling Cargo

- Safety First When Loading or Unloading Trucks and Trailers
 - Cargo Securement Regulations
 - Importance of Handling Cargo Properly
 - Accepting and Loading Freight
 - Fundamentals in Handling Cargo
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- Vehicle Weight
 - Distribution of Weight
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Cargo Documentation

- Definition of Terms
- Transportation Charges and Services
- U.S. Commercial Vehicle Size and Weight Program
- Basic Shipping Documents
- Driver's Signature and Responsibility
- Previously Loaded Trailers
- Delivery of Freight
- Intermodal Freight Transportation
- Interline Freight
- Hazardous Materials and Waste

Special Rigs

- Longer Combination Vehicles
 - Special Trailer Types
 - Low-Clearance Vehicles
 - High Center of Gravity in Vehicles
 - Unstable Loads
 - Special Cargo Vehicles
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Transportation Security

- The U.S. Department of Homeland Security
 - U.S. Transportation Security Administration
 - Trucking Security Grows into Larger Issue
 - FMCSA Suggests Measures to Reduce Security Risks
 - General Security Procedures
 - What Security Is Important?
 - What Else Can Be Done?
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- Electronic Security Devices

Driving International Routes

- Suggestions for Security When Driving Internationally
 - Crossing into Canada
 - Clearing Customs
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Public Relations and Job Search

- Public Relations
- Customer Relations
- Employer – Employee Relations
- Interpersonal Communications for Professional Drivers
- Applying for a Job

Driver Health, Safety, and Security

- Overview
 - Driver Nutrition
 - What About Exercise?
 - How to Choose a Safe, Quiet Truck Stop
 - Job Stress
 - Alcoholism and Drug Abuse
 - DOT Physical is Required Every Two Years
 - Driver Safety
 - Roadside Emergencies
 - Large Truck Crashes Increased in 2010
 - Causes of Accidents
 - Driver Fatigue and Sleep Apnea
 - Progress in Fatigue Management
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Whistleblower Protections for Professional Drivers

- OSHA Whistleblower Protections – What They Cover and How to Report Violations
- The Surface Transportation Assistance Act – Whistleblower Protections and How to Report Violations

Compliance, Safety, Accountability

- A Brief History of CSA
 - The Goals of CSA
 - The Core Priorities of CSA
 - SMS and Basics – Major Components of CSA
Improve FMCSA's Method of Doing Business in Three Ways
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- Implementation Plans for CSA
 - What Drivers Need to Know About CSA
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Exam Schedule

Weekly	Exams will consist of assignments, assessments, quizzes, and test

Homework Policy

Homework will be assigned

Additional Information

As per the Federal Motor Carrier Safety Regulations- All students attending the Professional Truck Driver Training program must adhere to the Federal regulations regarding DOT drug testing and the DOT Physical.

Non-English-speaking students must adhere to FMCSA regulation 391.11

* Can read and speak the English language sufficiently to converse with the general public, to understand highway traffic signs and signals in the English language, to respond to official inquiries, and to make entries on reports and records.