

CHC 201 Commercial Truck Driving I

Course Information

Credits	7
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

Description

The curriculum standards of this course incorporate the curricular recommendations of the U. S. Department of Transportation's Federal Highway Administration's former Office of Motor Carriers Model Curriculum. The curriculum standards represent the minimum training elements that a commercial motor vehicle driver-training course should contain, and against which any such course may be judged. Taken together with CHC 202 Commercial Truck Driving II, The curriculum standards represent the minimum curriculum judged by the Professional Truck Driver Institute, Inc. (PTDI) to be necessary in order to provide training in how to operate a Commercial Motor Vehicle.

Textbooks

Student Learning Outcomes:

- A. Communicate effectively
- B. Integrate technology
- C. Learn effectively
- D. Demonstrate cooperative teamwork skills
- E. Apply safety in the workplace
- F. Think critically and creatively
- G. Demonstrate responsible work ethics

Competencies

Read and Interpret Control Systems (Performance Skill #1)

1. Identify, locate, read and operate each of the primary controls including those required for steering, accelerating, shifting, braking, and parking.
2. Identify, locate, and operate each of the secondary controls including those required for control of lights, signals, windshield wipers and washers, interior climate, engine starting and shutdown, suspension and coupling.
3. Identify, locate, read and operate, and indicate the acceptable reading range of the various instruments required to monitor vehicle and engine speed as well as the status of fuel, oil, air, cooling, exhaust, and electrical and electronic systems.
4. Use information from all sources, given that instruments may malfunction or not be entirely accurate.
5. Read and understand in-cab safety systems.

Perform Vehicle Inspections (Performance Skill #2)

1. Perform pre-trip, en route, and post-trip inspections.
2. Inspect and determine the condition of critical vehicle components, including the instruments and controls; seat adjustment; engine and drive train; chassis and suspension; steering system; braking system; tires, wheels and rims; lighting and signaling system, coupling system; emergency equipment; and cargo securement device(s).
3. Perform pre-trip inspections in a regular, systematic sequence that is accurate, uniform, and time efficient. Review previous day's post-trip inspection report to verify corrections.
4. Perform en route inspections by checking mirrors for signs of trouble; monitoring instruments and looking, listening, and feeling for malfunctions; making periodic roadside inspections of critical components; and meeting en route requirements for transporting all types of cargo.
5. Perform post-trip inspections by making accurate notes of actual and suspected component abnormalities or malfunctions.
6. Complete driver vehicle inspection report (DVIR).

Exercise Basic Control (Performance Skill #3)

1. Enter cab properly and adjust all safety components.
2. Start and warm up the engine.
3. Place vehicle in motion and accelerate smoothly.
4. Monitor controls, mirrors, instruments and gauges.
5. Center and maintain vehicle in lane.
6. Maintain appropriate vehicle and engine speed on upgrades and downgrades.
7. Negotiate left and right curves and sharp turns for various trailer lengths.
8. Judge clearances around vehicle and physically check position for obstructions.
9. Maneuver into restricted areas in various positions.
10. Use proper backing maneuvers using reverse steering and warning flashers.

Execute Shifting (Performance Skill #4)

1. Shift up and down through all gears of multi-speed, dual range transmissions.
2. Double clutch and time shift for smooth and fuel-efficient performance.
3. Select proper gear for traffic, terrain, turns, speed and highway conditions.
4. Avoid riding the clutch.
5. Demonstrate progressive shifting technique.
6. Demonstrate skip shifting.
7. Demonstrate proper gear recovery.
8. Demonstrate how to stop in any gear.

Back and Dock CMV (Performance Skill #5)

1. Check and adjust mirrors.
2. Set parking brake, get out and check area for obstructions, position, and intended path.
3. Determine appropriate path and clearances prior to backing.
4. Activate warning flashers prior to moving into reverse gear. Sound horn prior to backing if CMV does not have a back-up alarm. Keep window open and radio off.
5. Position vehicle correctly before beginning a backing or docking maneuver.
6. Use appropriate ground guide spotter with clear signals, as necessary.
7. Execute reverse steering of an articulated vehicle.
8. Back slowly (using idle speed) in straight and curved lines.
9. Back into restricted space.
10. Constantly check when backing – look in mirrors; watch for conditions that could tilt trailer; identify obstructions.
11. Pull up and start over when necessary.
12. Park in various positions.

Couple Trailer (Performance Skill #6)

1. Align tractor and trailer units in a straight line for coupling.
2. Check trailer height. Trailer nose should be slightly higher than fifth wheel.
3. Secure trailer against movement, if applicable.
4. Back tractor slowly and straight into trailer kingpin, at right level, and with appropriate force; check coupling and pin engagement.
5. Check connection for security by pulling tractor forward gently. If connection is complete, release brake; if not, secure connection.
6. Connect and check air and electrical lines.
7. Check for symptoms of improper or incomplete connections and make necessary adjustments.
8. Set in-cab air brake controls.
9. Retract and secure landing gear and handle.

Uncouple Trailer (Performance Skill #7)

1. Spot trailer on surface capable of supporting weight and secure vehicle against movement.
2. Lower gear to raise trailer to correct height and check support.
3. Disconnect and secure air and electrical lines prior to uncoupling.
4. Uncouple trailer(s) using correct procedures for individual equipment, if applicable.

Perform Visual Search (Performance Skill #8)

1. Adjust all mirrors to appropriate specifications.
2. Scan both sides of the highway using quick glances to observe roadside activity and vehicles nearby.
3. Check mirrors for hazards regularly, and always before changing speed or direction.
4. Check instrument panel frequently.
5. Look ahead as far as possible during turns and on curves.
6. Check both sides before turning or changing lanes.
7. Monitor overtaking traffic in order to be aware of vehicles behind and in blind spots.
8. Avoid diverting attention from the path ahead.
9. Visually scan up to 10 to 12 seconds ahead of current position to identify potential hazards.

Manage and Adjust Vehicle Speed (Performance Skill #9)

1. Judge safe speed at which a curve and on/off ramps can be entered and slow speed to less than posted to allow for load and other conditions.
2. Obey speed limit.
3. Maintain proper speed to manage the space around the truck.
4. Judge and adjust speed to maintain traction.
5. Recognize and interpret all types of driving conditions and highway surfaces.
6. Judge and adjust speed at which vehicle control can be maintained under traffic conditions, crosswinds, highway conditions, weather conditions, size of the load, and limited visibility.

Manage and Adjust Vehicle Space Relations (Performance Skill #10)

1. Explain basic formula for determining safe following distance
2. Judge adequacy of gaps in traffic for passing, crossing traffic, entering traffic, and changing lanes.
3. Use proper visual search techniques to determine and achieve appropriate space.
4. Properly position vehicle for making all driving maneuvers, and avoid placing other vehicles or pedestrians in jeopardy.
5. Determine safe clearances on all sides including height of vehicle.
6. Adjust following distances for loads and highway conditions.

Check and Maintain Vehicle Systems and Components (Performance Skill #11)

1. Check engine systems to include fuel, oil, coolant, battery and electrical systems, air intake and filters, and exhaust system.
2. Check steering for excessive steering wheel play.
3. Check tire pressure and proper tire and wheel mounting.
4. Drain moisture from air brake supply reservoirs and fuel system.
5. Check brakes. Report problems or adjust according to regulation, certification and company policy.
6. Clean lenses and replace light bulbs, when required.
7. Change fuses and reset circuit breakers.
8. Check drive train coupling and suspension systems.

Diagnose and Report Malfunctions (Performance Skill #12)

1. Check each component and vehicle system. Identify vehicle systems or components that are functioning properly, are in imminent danger of failing, or functioning improperly.
2. Match symptom to possible list of problems.
3. Describe symptoms of improper operation completely and accurately to maintenance personnel.
4. Correct problems in accordance with company policy.
5. Avoid attempting to perform maintenance for which driver is unqualified.
6. Report breakdowns occurring en route according to company policy.
7. Complete a driver vehicle inspection report (DVIR).

Guidelines for Success

Assessment Plan

Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Rationale

Student progress is evaluated by means that include, but not limited to: exams (60%), written assignments/labs (30%), and attendance/class participation (10%).

Grading Scale

92-100% A

84-91% B

76-83% C

68-75% D

0-67% F

Attendance

Effective learning cannot take place unless you are in class. Students are expected to attend every class period and will have daily professionalism points deducted if they are tardy or if they do not attend. As in any profession students are expected to contact the instructor if they are unable to attend due to sudden illness or a family emergency. If students need to miss class for other reasons, they should discuss the event with the instructor and make arrangements to make up the work ahead of time.

Disability

The Americans with Disabilities Act (ADA) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities **MUST** self-identify by completing an application. In addition students must provide appropriate medical documentation to the ADA coordinator to be eligible for accommodations. New requests for accommodations should be submitted at least two months or more prior to the date the accommodations are needed. However, please contact the ADA office as soon as a need may arise. Depending on the accommodation request, four to eight weeks lead time may be needed for timely and effective provision of accommodations.

The ADA Office coordinates and assists in arranging accommodations it deems appropriate for eligible students on a case-by-case basis. If you are a student with a disability that may substantially limit your ability to participate in any of our classes and you believe that you will need accommodations, it is your responsibility to contact:

ADA Coordinator

Phone: 785-228-6356

Email: gloria.christian@washburn.edu

It is the policy of Washburn Institute of Technology to assure equal employment and educational opportunity to qualified individuals without regard to race, color, sex, age, ancestry, marital or parental status, disability, religion, national origin, or sexual orientation/gender identity. Contact Pam Foster, Morgan Hall, Room Washburn University (785-670-1509), and pam.fosterel@washburn.edu.