

National Safety Code

Standard 16: Commercial Truck Driver Entry Level Training (Class 1)

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FOREWORD

The purpose of this standard is to ensure that applicants possess the basic knowledge and driving skills to safely operate a commercial vehicle that requires a Class 1 driver's licence to operate on Canadian roads. While some of the elements relate to work environments, it is not intended to focus on training and knowledge related to employment environments. Additional training and learning is expected to be provided on the job, related to employment specific to business operations and the types of vehicles, cargo and driving undertaken as part of the business. While knowledge and performance testing are seen as essential elements of a common transportation and licensing policy, training is an important component in developing the knowledge and skills necessary to contribute to improving road safety and facilitating the free movement of persons across borders.

The Canadian model requires some level of constitutional independence, mutual recognition of programs and reciprocity. Given the importance of transport, possession of a Class 1 driver's licence, based on a harmonized approach to entry level training, promotes free movement of people and more efficient movement of goods. Knowledge and performance testing are two elements of the driver licensing system that contribute to the achievement of these goals.

This standard reflects Canadian jurisdictions' continuing commitment to public safety while allowing the maximum driving privilege possible.

BACKGROUND

Principles

The concept of "principle" generally describes rules, norms, or values that guide or describe desirable behaviours for an individual or group. Principles are statements intended to guide the ways things are done by individuals and organizations, what is done and why.

A number of principles have been articulated throughout the National Safety Code (NSC) as well as the national road safety strategy. The principles below apply to NSC 16:

- Contributes to a safe systems approach to road safety.
- Standards are developed through an inclusive and consultative process.
- The need for ongoing evaluation of the program model to ensure integrity and validity of the curriculum and standard elements.

These principles are to be broadly construed when applying the standards and policies within a jurisdiction; providing direction and flexibility in how road safety goals can be achieved.

Structure of the Standard

NSC standard 16 contains four parts:

- Part A: Course Delivery Standard
- Part B: Curriculum Standard
- Part C: Curriculum Framework
- Part D: Air Brakes²

Use of the Standard

It is expected that all Canadian jurisdictions will adopt the NSC standards as a reference. While the NSC standards imply a minimum, there is no constraint on jurisdictions going beyond this specification.

¹ Merriam-Webster defines principle in a number of ways, the most relevant being "a fundamental doctrine or assumption", a "rule or code of conduct" (www.merriam-webster.com/dictionary/principle). The Cambridge Dictionary (http://dictionary.combridge.org/dictionary/english/principle) describes principles as fundamental norms, rules, or values that represent what is desirable and positive for a group, organization, or community. The online Oxford Dictionaries (www.oxforddictionaries.com/definition/english/principle) says a principle is a "rule or belief governing one's behaviour" while the MacMillan Dictionary defines principle as a basic belief, theory, or rule that has a major influence on the way in which something is done (http://www.macmillandictionary.com/dictionary/british/principle).

² The air brakes requirements are intended for delivery as part of or separate from an ELT program.

National Safety Code (NSC) Standards

The Canadian Council of Motor Transport Administrators (CCMTA) coordinates all matters dealing with the administration, regulation and control of motor vehicle transportation and highway safety. Membership includes representation from provincial and territorial governments as well as the federal government of Canada.

CCMTA supports its members' vision to have the safest and most efficient movement of people and goods by road in the world. CCMTA is the custodian of the National Safety Code, and provides collaborative leadership in the areas of Road Safety Research and Policies, Drivers and Vehicles and Compliance and Regulatory Affairs.

Vision

To have the safest and most efficient movement of people and goods by road in the world.

Mission

To provide collaborative leadership in addressing Canadian road safety priorities.

History

- The origins of the CCMTA can be traced back to 1940, when the four Western provinces met to consider issues of common interest relating to road transport. In the early fifties, the group was joined by Ontario and the Yukon Territory. The Canada-wide expansion of the organization took place in 1956, some two years after the enactment of the Motor Vehicle Transport Act by Parliament, in response to an already felt need for uniformity due to increasing movement and traffic.
- In 1975 a constitution was signed by representatives of all provinces and territories and a small permanent Secretariat was established. The federal government has participated as a full member of CCMTA since 1977. The organization was incorporated in 1987 under its present name and constitution. CCMTA commemorated its 75th anniversary in 2015.

CCMTA Members are elected from provincial, territorial and federal governments. CCMTA has a responsibility to be accountable to:

- the Council of Deputy Ministers and Ministers for:
 - providing advice and making recommendations on matters relating to transportation and highway safety
- the provinces, territories and the federal government for:
 - promoting a better understanding and cooperation in all matters related to transportation and highway safety among each other, as well as other organizations where a mutual interest exists.
- its stakeholders for:
 - maintaining an ongoing dialogue and consultation to ensure CCMTA is responsive and informative.

The relationship between individual Canadian jurisdictions' entry level training models and the CCMTA NSC standards

All Canadian provinces and territories have the authority to establish their own training for all drivers. However, it is recognized that there is a need for and benefit from having standards for Class 1 driver training as part of the National Safety Code (NSC); to improve the level of knowledge and skill of drivers of large, commercial vehicles, and to achieve uniformity among the provinces and territories.

PART A - COURSE DELIVERY STANDARD

Three Learning Environments

Training will occur in 3 learning environments:

- In-class refers to an educational setting inclusive of classroom, digital and/or blended instruction facilitated by an instructor. If self-directed through a Learning Management System (LMS), as described below, the student requires access to assistance by individuals or parties approved by the jurisdiction.
- In-yard (around the vehicle) refers to activities that occur around the vehicle when it is not moving (e.g. vehicle inspection).
- In-cab (behind the wheel) refers to the student operating behind the wheel of the vehicle either off-road or on-road. This includes coupling/uncoupling, backing exercises, and driving along.

Each of these learning environments lends itself to different methods of instruction. Simulators can be used as a learning tool for in-class instruction but cannot be used to replace in-cab or in-yard hours.

Digital Delivery Methods

The following are acceptable methods for delivering the in-class portion of ELT digitally: Each ELT curriculum, whether digital or blended, may utilize the following digital delivery methods, provided the solution meets the jurisdiction's minimum learning standard:

- A Learning Management System (LMS) a self-paced, self-directed course, which may include a virtual classroom component. The software manages the administration, documentation, tracking, grading, reporting, and delivery of educational training programs as opposed to a live instructor.
- A Virtual Classroom A course that is delivered in real time by a live instructor using a video conferencing software/solution. Any video conferencing software/solution may be used for delivering ELT in a virtual classroom, provided the solution meets the requirements stated in the learning standard.

Note, jurisdictions must have the ability to verify that the student has participated in the digital delivery method.

Course Structure

This course structure and content will continually reinforce driving theory, skills practice and promotion of positive driving attitudes in all educational settings/environments (i.e. in-class, in-yard and in-cab) using a variety of instructional strategies and methods as reasonable within each setting/environment,

including:

- a) Direct Instruction,
- b) Indirect Instruction,
- c) Interactive Instruction,
- d) Experiential Instruction,
- e) Independent Learning.

	Examples					
Instruction Strategy	In-class	Digital	In-yard	In-cab		
Direct Instruction	Lecture with audience	"Demonstrate"	Lecture with audience	Lecture with audience		
Indirect Instruction	"Look up in"	"Solve this problem"	"Go look at…"	"Follow Instructions"		
Interactive Instruction	"Compare"-	"Post a response to"	"See what occurs"-	"Try out"-		
Experiential Instruction	"Assemble"-	N/A	"Check for" -	"See what…"		
Independent Learning	"Internet search and	"Watch this…"	"Compare and report"	"Find another way"		
	complete"-					

For non-classroom (in-yard and in-cab) instruction requirements:

- a) Where reasonable and prudent, sessions will be a maximum of 3 hours of instruction at one time, followed by a break.
- b) Maximum 6 hours/day, in-cab instruction. A one-time in-cab extension up to 8 hours will be permitted to be used toward expressway/highway training, provided the student has achieved a point of skills/knowledge capability and stamina to complete 8 hours that includes expressway/highway driving.

Course structure and curriculum will:

- a) present topics and materials in a logical sequence allowing for the development of knowledge and skills throughout the different stages of learning to ensure any prerequisites are met.
- b) be designed to allow for easy updating, removal, and insertion of content as needed.
- c) be adaptable to meet individual learning needs (e.g. age, ability, culture) and regional needs.

Maximum 8 hours/day of instruction. Daily instruction may be, for example:

- a) 1 hour of in-cab following 7 hours of classroom
- b) 4 hours in-class, 2 hours in-yard, 2 hours in-cab
- c) 1 hour in-class, 2 hours in-yard, 5 hours in-cab

Adhere to the following classroom instruction requirements:

- a) Approved instructors and learners must be present in the classroom during classroom instruction,
- b) Maximum 8 hours/day of classroom instruction (excluding breaks).

Adhere to the following digital classroom instruction requirements:

- a) Approved digital instructors must be available for facilitation or support and learners must be present during digital classroom instruction,
- b) The maximum hours per day of instruction will be determined by each jurisdiction.

Facility Requirements

Facilities where training is to take place or remotely offered must meet all occupational health and safety requirements, other jurisdictional legislation, and local government by-laws.

Course Hours

For the purpose of determining the minimum hours required to meet the training requirements, the total hours represent 1:1 instruction between the student and instructor.

Observation time in the cab where one student is observing another student is not calculated in the overall time.

Instruction hours are calculated at 60 minutes. Break times are not included in the lesson time.

Assessments within a lesson to check for transfer and retention of knowledge are included in the time allotment (e.g. short tests or quizzes).

The course curriculum must include standardized assessments within the three environments (inyard, in-class and in-cab), as approved by the jurisdiction.

The following **minimum** required instructional hours must be adhered to*:

	Classroom	In-Yard	In-Cab	Total
		(Around the vehicle – vehicle not moving)	(Behind the wheel, e.g. backing, coupling/uncoupling, driving along)	
Class 1	36.5	17	50	103.5**
Airbrakes	6.5	2	-	8.5**

⁼ driver is BTW; e.g., backing, coupling/uncoupling, driving along

*Air brake instruction is mandatory for Class 1 licensing whether incorporated into the ELT curriculum or taken as a separate course/training. If trainers choose to deliver airbrake training within an ELT course, the hours for the course would be increased accordingly. If airbrake training is provided as part of ELT, a minimum of 8.5 hours will be added to the minimum of 103.5 ELT training hours.

** Jurisdictions may have slightly varying definitions resulting in minor differences in the hours in each category. However, the elements will be consistent with the overall national standard for entry level training.

Advanced Standing

Drivers must complete the full 103.5 hours for course recognition in fulfillment of Class 1 licensing requirements. Course work begun, but not completed, in another jurisdiction is non-transferable. Those

holding lower class licences will not be provided recognition with any advanced standing credit toward the completion of the mandatory 103.5 hours.

This Standard does not stipulate the minimum or maximum period of time in which an applicant for a Class 1 driver licence must complete the entirety of hours contained in a jurisdiction's entry level training program. To ensure retention of learning material and skill acquisition, the minimum 103.5 hours of training, must be completed within the required time frame as determined by each jurisdiction.

Student to Instructor Ratio

- In-class: a maximum of 15 students (excluding LMS) will be permitted.
- In-yard: 1 hour of in-yard time is required for 1:1 instruction, for up to 4 students. The instructor must be present and leading activities. With 4 students who are working alone or together, without instructor-led activities, the in-yard time is not credited to the overall time of 103.5
- All students must be given equitable time for hands-on training.
- In-cab: a maximum of 4 students will be permitted, providing the vehicle may accommodate this number of seated passengers. The behind-the-wheel (BTW) time allotment is only credited to the student who is sitting in the driver's seat and in control of the vehicle. Instruction time is calculated at 1:1. Example: If 1 hour of BTW time is required, with 3 students in the cab, the time increases to a 3 hour training session in order for each student to obtain a 1 hour credit through a rotation of seats; therefore, 1 hour of BTW and 2 hours of observation is recorded on a student's training record, however, observation time is not calculated toward completion of the mandatory in-cab (behind-the-wheel) training hours.

Instructor Qualifications

The following instructor qualifications must be met at the time of application and to maintain instructor status for teaching the mandatory entry level training course for commercial Class 1 truck drivers:

- Must have a valid Class 1 driver's licence.
- Must have at least three consecutive years documented experience with a Class 1 driver's licence immediately prior to application, demonstrated by an up to date driver's abstract that reflects the instructor's driving record at the time of application.
- Must maintain a satisfactory driving record and provide an abstract as required by the jurisdiction on a periodic basis.
- Must provide a satisfactory criminal record check on a regular basis as required by the jurisdiction.
- Must successfully complete instructor/digital instructor training/certification, including communication proficiency and standardized assessment(s) as recognized by each jurisdiction.
- Must successfully complete periodic training or re-certification, as required by the jurisdiction.

Vehicle Configuration

Training must be completed using a tractor trailer with the following configuration:

- Semi-trailer with a Gross Vehicle Weight Rating (GVWR) of a minimum of 4,600 kg.
- Full-air brake system on both tractor and trailer.
- Minimum tandem axle tractor and a tandem axle trailer.
- 5th wheel coupling device.

Single trailer with a minimum length of 45 feet and a minimum distance of 35 feet measured from the kingpin to the center of the rear bogie.

In-cab driving must include loaded and unloaded trailers as well as bobtailing. On-road training must include a minimum load component of 50% of payload, 25% to 75% of the time. A maximum of 25% of in-cab time is to be allocated for bobtailing.

A student may take training on a manual or automatic transmission vehicle. If a student trains and tests on an automatic vehicle, jurisdictions must restrict the driver to automatic vehicles, prohibiting the driving of commercial vehicles with a manual transmission.

PART B - CURRICULUM STANDARD

Purpose

This standard is a pre-licensing training program for Class 1 driver licensing applicants. It is not intended to address ongoing employment training which may require additional experience with vehicle types, loads, employer hiring practices and job requirements. The elements outlined in the standard are minimum requirements at a national level and individual Canadian jurisdictions may have additional or higher thresholds for some requirements.

Development Format

If the curriculum is not provided by the jurisdiction, the course provider is responsible to provide a curriculum for approval to the appropriate authority in the jurisdiction. Jurisdictional approval will help to ensure that drivers are being trained to the level of competency as defined in the curriculum framework. Jurisdictions will also develop an audit framework as part of an ongoing assessment of the standard's implementation, including learning outcomes for trainees.

The submission must include:

- A course overview,
- What equipment will be used,
- How long the course is,
- A typical course agenda given to the student, and
- How different instructional methods will be applied.

Lesson plans must be complete with:

- Measurable objectives,
- A time frame for the lesson, both overall and within the lesson,
- The environment where this lesson occurs (in-class specifying digital delivery method, if applicable in-yard, in-cab),
- What equipment is required for the lesson,
- Support materials that are used in the lessons,
- Step-by-step instructions for the instructor/digital instructor, with the use of different instructional methods, and
- Assessments directly related to the lesson and appropriate to the objectives.

Instructional Methods

- Instructional methods that apply principles of adult education are to be incorporated into the course
- Up to a maximum of 50% of the in-class time may be lecture or digital content delivery.
- A minimum of 50% of the in-class time must be interactive, experiential and application focused.

Support Materials

Support materials used within a lesson must be provided with the curriculum.

Copyright Statement

For any copyrighted materials used in a curriculum, a statement that permission is granted for their use in the curriculum is required.

PART C - CURRICULUM FRAMEWORK

Purpose

This part of the standard sets out a framework for the curriculum and the learning outcomes for training delivered to individuals aspiring to become a Class 1 driver. This framework is aligned with the National Occupational Standard for Commercial Vehicle Operators (truck drivers). The purpose of this curriculum framework is to provide consistent training within entry level Class 1 driver training programs. It is important to recognize that this curriculum framework addresses the first stage of entry level Class 1 training.

Air brake instruction is mandatory for Class 1 licensing whether incorporated into the ELT curriculum or taken as a separate course/training. If trainers choose to deliver airbrake training within an ELT course, the hours for the course would be increased accordingly. If airbrake training is provided as part of ELT, a minimum of 8.5 hours will be added to the minimum of 103.5 ELT training hours.

The following table lists the relevant competency blocks of the National Occupational Standard (NOS) for Commercial Vehicle Operators (truck drivers) that are addressed in each section of this curriculum framework. The (bracketed numbers) are the actual NOS sections for ease of cross-referencing.

National Occupational Standard (NOS) for Commercial Vehicle Operators Competency Blocks

Section NOS Competency Blocks Address³

1. Employment in the commercial vehicle industry

- Understand the workplace (1).
- Relate and interact in the workplace (2).
- Maintain health, wellness and relationships (3).
- Understand basic regulatory requirements (4).
- Communicate in the workplace (5).

2. Vehicle components & systems

• Operate commercial vehicle systems and features (16).

3. Basic driving techniques

- Prepare and start to drive (18).
- Adhere to requirements that are specific to commercial vehicles (23).
- Control vehicle motion and speed (19).
- Control vehicle direction and position (20).
- Turn tractor-trailers (28).

4. Professional driving habits

- Maximize fuel efficiency (21).
- Apply defensive driving techniques (22).

³ The numbers in brackets references the competency block within the NOS for Commercial Vehicle Operators.

5. Tractor-trailer off-road tasks and manoeuvres

- Couple trailers (26).
- Uncouple trailers (27).
- Back, dock and park tractor-trailers (29).

6. Documents, paperwork & regulatory requirements

- Use workplace documents (6).
- Complete numeracy tasks (7).
- Operate computer and electronic devices (8).
- Plan work, plan trips and solve problems (9).

7. Vehicle inspection activities

- Support inspection and maintenance program (12).
- Conduct daily vehicle inspections (12).

8. Hours of service compliance

Comply with hours of service regulations (13).

9. Cargo securement & loss prevention

- Secure cargo for transport (15).
- Prevent loss and maintain secure facilities (10).

10. Handling emergencies

- Maintain situational awareness (17).
- Handle emergency incidents (25).

11. Air brakes

- Has a basic understanding of how a typical air brake systems function.
- Uses an air brake system safely and to its maximum advantage.
- Understands how an air brake system reacts to various failures.
- Performs an effective pre-trip inspection that ensures proper air brake system operation before putting a vehicle into service.
- Determines if the brakes are correctly adjusted.
- Knows how to properly adjust manual slack adjusters.

LEGEND:

M All competencies identified as M are mandatory for all curricula and are the core

competencies used to reach the total of 103.5 training hours for the Commercial

Truck Driver Entry Level Training Standard (Class 1).

R Competencies identified with an **R** are recommended for inclusion in a

curriculum. All R competencies are not included in the Commercial Truck Driver

Entry Level Training Standard's 103.5 training hours.

Air Brake Systems

Air brake instruction/training is mandatory for Class 1 licensing. A jurisdiction may choose to include the mandatory air brake training component within their

ELT training curriculum, or it may be developed as a standalone course.

If airbrake training is provided as part of ELT, a minimum of 8.5 hours will be added to the minimum of 103.5 ELT training hours.

Content and Learning Outcomes

1. Employment in the commercial vehicle industry	Learning Indicators		Perforn Eleme	
At the end of this training program the graduate will be able to:	M	R	M	R
1.1 - describe the requirements for employers and workers in a workplace to comply with government regulations and develop standards.	8	10	-	-
1.2 - effectively interact and speak with coworkers, supervisors, customers, suppliers, enforcement officials and the general public.	-	2	-	4
1.3 - explain the importance of being "fit for work", maintaining a healthy lifestyle and balancing personal and work life.	-	3	-	3
1.4 - explain the purpose, fundamental structure, and basic content of regulations that apply to commercial vehicle operations.	18	-	-	-

2. Vehicle components & systems	Learning Indicators		Perform Eleme	
At the end of this training program the graduate will be able to:	М	R	М	R
2.1 - operate commercial vehicle systems and controls.	9	2	12	1

3. Basic driving techniques	Learning Indicators		Performance Elements	
At the end of this training program the graduate will be able to:	M	R	М	R
3.1 - prepare and start to drive a commercial vehicle.	2	1	12	1
3.2 - comply with operational regulations that apply to commercial vehicles.	10	1	6	1
3.3 - drive a commercial vehicle in a safe manner and perform basic driving manoeuvres.	-	-	3	-
3.4 - operate a commercial vehicle in a safe manner and perform the required manoeuvres for driving on urban, rural, commercial, and industrial roads.	-	-	2	-
3.5 - operate a commercial vehicle in a safe manner and perform the required manoeuvres for driving on highways.	-		2	-

4. Professional driving habits	Learning Indicators		Perform Eleme	
At the end of this training program the graduate will be able to:	М	R	М	R
4.1 - apply defensive driving techniques.	3	-	11	-
4.2 - apply fuel efficient driving techniques.	1	2	4	5

5. Tractor-trailer off-road tasks and manoeuvres	Learning Indicators		Perform Eleme	
At the end of this training program the graduate will be able to:	M	R	М	R
5.1 - perform backing and parking manoeuvres with a tractor-trailer.	-	-	3	1
5.2 - safely perform tractor-trailer coupling and uncoupling tasks.	-	-	2	-

6. Documents, paperwork & regulatory requirements	Learning Indicators		Perform Eleme	
At the end of this training program the graduate will be able to:	М	R	М	R
6.1 - administer written workplace documents and communicate effectively through written means.	1	3	1	3
6.2 - complete basic mathematical calculations required for commercial vehicle operation.	-	2	-	6
6.3 - use computers, electronic and communication devices common in commercial vehicle operations.	-	-	1	2
6.4 - plan ahead, anticipate problems, and begin to deal with an emergency situation.	7	2	7	2

7. Vehicle inspection activities	Learning Indicators			
At the end of this training program the graduate will be able to:	М	R	M	R
7.1 - inspect and maintain commercial vehicles.	3	-	5	1
7.2 - conduct required daily inspections and monitor a commercial vehicle's safe condition.	3	-	10	-
7.3 - inspect each component or system listed in provincial legislation.	-	-	21	2

8. Hours of service compliance	Learning Indicators		Perform Eleme	
At the end of this training program the graduate will be able to:	М	R	M	R
8.1 - comply with the requirements of the hours of service regulations.	24	2	9	-

9. Cargo securement & loss prevention	Learn Indica		Performance Elements	
At the end of this training program the graduate will be able to:	M	R	M	R
9.1 - comply with basic cargo securement requirements.	11	9	-	4
9.2 - prevent cargo loss claims, and follow required procedures to maintain secure facilities, prevent cargo loss and avoid damage.	-	1	-	3

10. Handling emergencies	Learn Indica	•	Perform Eleme	
At the end of this training program the graduate will be able to:	M	R	M	R
10.1 - assess and adapt to changing conditions.	1	3	10	1
10.2 - handle minor emergency incidents in a professional manner.	1	4	1	-

11. Air Brakes	Learn Indica	_	Perform Eleme	
At the end of this training program the graduate will be able to:	М	R	M	R
11.1 – have the knowledge and ability to operate air brake equipped vehicles safely and in compliance with the applicable regulations.	10	-	4	-

ELT Hours Summary

Competence Category	Employm	1		
In	-Class	In-Yard	In-Cab	Total Hours
	1	-	-	1
Competence Category	,	Vehicle Components & Syst	tems	2
In-Class		In-Yard	In-Cab	Total Hours
	3	2.5	-	5.5
Competence Category		Basic Driving Technique	es	3
In-	- Class	In-Yard	In-Cab	Total Hours
	8	2.5	32 on road	42.5
Competence Category		Professional Driving Hab	its	4
In	-Class	In-Yard	In-Cab	Total Hours
	5.5	-	-	5.5
Competence Category	Tractor	-Trailer Off-Road Tasks & N	Manoeuvres	5
In	-Class	In-Yard	In-Cab	Total Hours
	2	3	18 off road	23
Competence Category	Documents	s, Paperwork & Regulatory	Requirements	6
In	-Class	In-Yard	In-Cab	Total Hours
	4	-	-	4
Competence Category		Vehicle Inspection Activit		7
In	-Class	In-Yard	In-Cab	Total Hours
	4.5	8	-	12.5

Competence Category		Hours of Service Compliance				
In-Class		In-Yard	In-Cab	Total Hours		
	5	-	-	5		
Competence Category	Car	go Securement & Loss Pre	evention	9		
In-Class		In-Yard	In-Cab	Total Hours		
	2	-	-	2		
Competence Category		Handling Emergencies	S	10		
In	-Class	In-Yard	In-Cab	Total Hours		
	1.5	1	-	2.5		

All Competence Categories							
In-Class Total	In-Yard Total	In-Cab Total	Total Hours				
36.5	17	50	103.5				

Competence Category		Air Brakes					
In-Class		In-Yard	In-Cab	Total Hours			
	6.5	2	-	8.5			

Note: Jurisdictions may have slightly varying definitions resulting is minor differences in the hours in each category. However, the elements will be consistent with the overall national standard for the entry level training.

Competence Category

1-EMPLOYMENT IN THE COMMERCIAL **VEHICLE INDUSTRY**

	4.4	At the end of this training our many the graduate will be able to describe	Alexander
Learning Outcome		At the end of this training program the graduate will be able to describe requirements for employers and workers to comply with government regand develop standards.	
Learning	1.1.1	Explains that employers must comply with government regulations.	М
Indicators	1.1.2	Identifies employer standards that apply to occupational health and safety, employment, transportation, and business operations.	R
	1.1.3	Explains that workers must comply with driving-related government regulations and standards.	M
	1.1.4	Identifies that standards may apply to worker obligations, rights and responsibilities; employment; health and safety; labour agreements; etc.	R
	1.1.5	Explains that there are requirements for gaining and sustaining employment within the occupation.	R
	1.1.6	Identifies that employment requirements may include: security screening and background checks; regular appraisals and performance reviews; pre-employment, periodic, or post-incident drug and alcohol testing; etc.	R
	1.1.7	Identifies that higher class of driver licences will involve an initial and periodic physical assessment or fitness screening.	M
	1.1.8	Identifies some of the medical conditions that may prohibit a driver from holding specific types of commercial driver's licences.	M
	1.1.9	Explains that expectations of worker performance are usually defined through workplace practices, procedures and policies that may include corrective action processes, consequences for failing to adhere to requirements, and steps that can lead to dismissal.	R
	1.1.10	Explains that specific workplace practices, procedures and policies vary in scope and application, and may be written or unwritten.	R
	1.1.11	Explains that workers are sometimes expected to rely heavily on their personal knowledge of regulatory or compliance requirements.	M
	1.1.12	Explains the need to identify workplace hazards according to workplace practices, procedures and policies.	R

Learning 1.1.13 Identifies that hazards are communicated through methods such R **Indicators** as Workplace Hazardous Materials Information System (WHMIS), and labels and Safety Data Sheets (SDS), used in the system known as the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for Workplace Chemicals. 1.1.14 Explains that some cargo is defined through regulations as M "dangerous goods". 1.1.15 Explains that dangerous goods can only be handled and transported by M workers who have been specifically trained and certified. 1.1.16 Identifies the types of symbols used to identify "dangerous goods". M 1.1.17 Explains the need for developing a clear understanding of workplace R practices, procedures and policies. 1.1.18 Explains the need to take steps to recognize and resolve situations R in which a worker's understanding is unclear about instructions, expectations, procedures or policies.

Learning Outcome	1.2	At the end of this training program the graduate will be able to effective interact and speak with coworkers, supervisors, customers, suppliers, enforcement officials and the general public.	ely
Learning Indicators	1.2.1	Explains that interactions involving spoken words include specific words as well as the accompanying tone of voice, context, gestures and body language.	R
	1.2.2	Describes gestures and body language that convey messages without exchanging spoken words.	R
Performance	1.2.3	Greets a person or group before interacting on any issue.	R
Elements	1.2.4	Adheres to regulations that require employers and workers to provide a workplace in which everyone feels secure and free of unnecessary conflict.	R
	1.2.5	Practices sensitivity to cultural diversity and uses a gentle and careful approach when encountering any misunderstanding.	R
	1.2.6	Uses techniques for social, verbal and electronic interactions that positively impact the graduate's success.	R

Learning Outcome	1.3	At the end of this training program the graduate will be able to explain importance of being "fit for work", maintaining a healthy lifestyle and balancing personal and work life.	the
Learning Indicators	1.3.1	Explains that some types of driving require significant amounts of time away from home, and that this schedule can cause work-related and personal stress and can affect family relationships.	R
	1.3.2	Explains that lifestyle and dietary factors can influence fatigue, performance, physical fitness and agility.	R
	1.3.3	Describes occupational factors which can contribute to health- related challenges such as obstructive sleep apnea, back strain, injuries caused by slips, trips and falls, etc.	R
Performance Elements	1.3.4	Practices stretching and proper lifting methods to prevent workplace injuries.	R
	1.3.5	Practices personal hygiene habits that positively affect workplace relationships.	R
Learning Outcome	1.4	At the end of this training program the graduate will be able to explain a purpose, fundamental structure, and basic content of regulations that a to commercial vehicle operations.	
Learning Indicators	1.4.1	Describes the National Safety Code model for Canadian jurisdictions to regulate the safe operation of commercial vehicles.	M
	1.4.2	Explains that legislation and regulations may affect operations within each jurisdiction, and that applicable rules can vary, even during the same workday, depending on where a driver is working.	M
	1.4.3	Explains that commercial vehicles are generally defined by weight and that individual Canadian jurisdictions can set unique weight thresholds.	M
	1.4.4	Explains that different classes of driver's licences apply to different types of vehicles and the required licence classes vary between Canadian jurisdictions.	M
	1.4.5	Explains that a driver's licence may require specific endorsements for certain types of commercial vehicles and operations.	M
	1.4.6	Explains that personal driving history can affect the status of a worker's commercial licence and ability to drive commercial vehicles.	M
	1.4.7	Explains that government agencies develop and retain records of driver incidents and infractions.	M

Learning Indicators	1.4.8	Explains that government agencies develop and retain records of commercial motor carrier incidents and infractions.	M
	1.4.9	Explains that medical condition and history affect the type of licence a driver can hold.	M
	1.4.10	Explains that regulations apply to the movement of vehicles on all public roads and highways.	M
	1.4.11	Explains that regulations apply to the mechanical condition of commercial vehicles.	М
	1.4.12	Explains that regulations apply to the allowable weights and dimensions of commercial vehicles.	M
	1.4.13	Explains that regulations apply to the securing of cargo transported by commercial vehicles.	M
	1.4.14	Explains that regulations apply to the air brake systems used on commercial vehicles.	M
	1.4.15	Explains that regulations apply to the daily inspection of commercial vehicles	M
	1.4.16	Explains that regulations apply to the transport of materials and products that are defined as "dangerous goods".	M
	1.4.17	Explains that regulations apply to the hours a person is permitted to drive a commercial vehicle, be on duty, and be off duty.	М
	1.4.18	Explains that commercial vehicles may be restricted from operating on certain routes, or at particular times, due to their weight, licence, size or commodity being transported.	M

Summary of Hours

Competence Category	Employm	1		
In	-Class	In-Yard	In-Cab	Total Hours
	1	-	-	1

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Competence Category

2-VEHICLE COMPONENTS & SYSTEMS

Learning Outcome	2.1	At the end of this training program the graduate will be able to operate commercial vehicle systems and controls.	
Learning Indicators	2.1.1	Describes the general components and basic function of a typical commercial vehicle engine compartment.	M
	2.1.2	Describes the general layout and function of major body, frame and external vehicle components and systems.	M
	2.1.3	Explains the differences between single, tandem, tridem and other multi-axle configurations.	M
	2.1.4	Describes the basic types, features and function of tires and wheels.	М
	2.1.5	Describes the physical features and operation of common types of suspension systems.	M
	2.1.6	Describes the physical features and basic operation of drum and disc brake systems.	M
	2.1.7	Describes how steering control is lost when tires skid during heavy brake use or when braking with poor traction.	M
	2.1.8	Describes the way that Anti-lock Brake Systems (ABS) keep wheels from locking but may not shorten vehicle stopping distance.	M
	2.1.9	Describes how stability control systems operate and affect vehicle operation.	М
	2.1.10	Describes the physical features, indicators, warnings, and the basic operation of hydraulic brake systems.	R
	2.1.11	Describes the basic operation of portable or on-board cargo heating equipment.	R
Performance Elements	2.1.12	Locates and operates all typical primary and secondary controls, gauges and instruments.	M
	2.1.13	Reads the instrument panel indicators displaying important vehicle operating information, warnings and safety system status.	M
	2.1.14	Operates one or more typical manual transmission and clutch, automated manual transmission and/or automatic transmission.	M
	2.1.15	Locates fuel tanks and filler caps and apply proper fueling methods.	M

Performance Elements	2.1.16	Identifies important commercial vehicle service items and locates operating fluid check points.	M
	2.1.17	Identifies the correct operating fluids required for a vehicle and properly re-fills and maintains fluid levels.	M
	2.1.18	Operates a differential lock or inter-axle differential lock, if equipped.	M
	2.1.19	Operates engine brake or retarders and describe how and when to appropriately use these systems to control vehicle speed.	M
	2.1.20	Operates vehicle heating, defrosting and air-conditioning systems.	M
	2.1.21	Operates vehicle lamps and accessories.	M
	2.1.22	Operates windshield wiper and washer systems.	M
	2.1.23	Carries, secures, stores and uses, or operates required emergency equipment.	M
	2.1.24	Operates different types of trailer coupling devices.	R

Summary of Hours

Competence Category	Vehicle Components & Systems				
In	i-Class	In-Yard	In-Cab	Total Hours	
	3	2.5	-	5.5	

Competence Category

3-BASIC DRIVING TECHNIQUES

3

Learning Outcome	3.1	At the end of this training program the graduate will be able to prepare start to drive a commercial vehicle.	e and
Learning Indicators	3.1.1	Explains the importance of being fully alert when driving and that judgment is not impaired in any way while driving.	M
	3.1.2	Describes ways to check and remove vehicle restraints and other loading dock devices.	R
	3.1.3	Explains the importance of proper start-up and/or warm-u procedures.	M
Performance Elements	3.1.4	Applies a method for confirming that they are fully alert, and their judgment is not impaired in any way before beginning to drive.	M
	3.1.5	Confirms every time before leaving the driver's seat; that the vehicle is secured by the vehicle's parking brake, wheel chocks or suitable blocks.	M
	3.1.6	Enters and exits the cab, or the vehicle cargo area, maintaining 3 point contact and recognize the risks of improperly climbing onto or jumping from equipment.	M
	3.1.7	Confirms all required vehicle and cargo documents are valid and correct.	M
	3.1.8	Locates required vehicle documents such as permit books, vehicle registration, insurance, bills of lading, etc.	M
	3.1.9	Confirms that cargo handling equipment and devices are returned to their proper place - when in a loading dock.	R
	3.1.10	Checks and/or adjusts air suspension settings and controls, axle spacing, and fifth wheel position, if equipped – when operating a tractor-trailer.	M
	3.1.11	Adjusts the driver's seat to the correct position before driving.	M
	3.1.12	Inspects, wears and properly adjusts seatbelts before driving.	M
	3.1.13	Sets up mirrors to minimize a vehicle's "blind spots".	M
	3.1.14	Scans all controls and instruments before driving.	M
	3.1.15	Monitors the engine, instrument panel and indicator lamps.	M
	3.1.16	Listens for normal vehicle sounds, while starting the vehicle's engine and avoid unnecessary idling.	M

Summary of Hours

Competence Category	Basic Driving Techniques				
In	-Class	In-Yard	In-Cab	Total Hours	
	1	2.5	-	3.5	

Learning Outcome	3.2	At the end of this training program the graduate will be able to comply of operational regulations that apply to commercial vehicles.	vith
Learning Indicators	3.2.1	Explains the need to know the height of their vehicle before driving on any road.	M
	3.2.2	Explains the need to know the approximate empty and loaded weight of their vehicle before driving on any road.	M
	3.2.3	Explains how to comply with specific requirements for using toll routes and bridges.	R
	3.2.4	Explains that steep slopes require different driving techniques and location and proper use of truck emergency runaway lanes.	M
	3.2.5	Explains the times, days and/or weeks when commercial vehicle operations are restricted in certain urban areas and imposed through municipal bylaws.	M
	3.2.6	Explains standard highway height and weight limits and restrictions.	M
	3.2.7	Explains the need to carry the emergency equipment required for certain commercial vehicle operations.	M
	3.2.8	Explains how and when to properly set up emergency warning devices such as triangle reflectors.	M
	3.2.9	Explains the importance of immediately recognizing and responding to an unexpected situation in which their vehicle weight or height is greater than what is permitted to operate on a particular road or highway.	M
	3.2.10	Explains the importance of respecting local bylaws restricting vehicle loading and unloading activities, parking and idling.	M
	3.2.11	Identifies routes that prohibit commercial vehicles.	M

Performance Elements	3.2.12	Reads all road signage with particular messages that apply to commercial vehicles.	M
	3.2.13	Takes extra care when crossing railway tracks and, before crossing, determines the space available for vehicles.	R
	3.2.14	Shifts gears while crossing the railway tracks only when it is necessary.	M
	3.2.15	Enters vehicle inspection facilities, or pull off the roadway, when instructed by an officer or highway signage.	M
	3.2.16	Watches for potential hazards of unmarked overhead obstructions such as: canopies, roof overhangs and other building protrusions, signs, utility lines, tree limbs, doorway entries, etc.	M
	3.2.17	Watches for snow build-up, debris or road construction that can change vehicle height, weight or clearances.	M
	3.2.18	Identifies and reads all road signs indicating the weight capacity of roadways or bridges including seasonal weight restrictions.	M

Summary of Hours

Competence Category	Basic Driving Techniques			3
In	-Class	In-Yard	In-Cab	Total Hours
	2	-	1	3

Learning Outcome	3.3	At the end of this training program the graduate will be able to operate a commercial vehicle in a safe manner and perform basic driving manoeuvres.
Performance Element	3.3.1	Drives a commercial vehicle in a safe manner along typical roads, highways and expressways.
	Driving	g-along includes performing the following sub-tasks.
	The dr	iver will:
Sub-tasks	1. App	oly continual observation techniques and monitoring of road conditions.
	2. Con	nduct regular traffic checks.
	3. Mo	nitor vehicle blind spots.
		ve courteously, manages unexpected situations, manages. distractions and ves within capabilities and experience.
	5. Mc	onitor vehicle behavior and operating conditions.
	oth	ognize their responsibilities for sharing the road surface with pedestrians and er vehicles of various dimensions, speeds and purposes, and the consequences ailing to do so.
		nage speed and following distance to allow adequate time to observe, react, noeuvre and perform safe braking and stopping if necessary.
	8. Mai	intain proper road and lane position.
	9. Obs	serve road signage and pavement markings.
	10. Int	egrate with traffic and show awareness of other road users.
	11. Op	erate vehicle controls smoothly.
	12. Ma	aintain two-handed grip on the steering wheel as much as practicable.
	-	perate a manual transmission if applicable, selecting gears correctly and shifting moothly.

3.3.2 Drives a commercial vehicle through curves in a safe manner.

M

Driving through curves includes performing the following sub-tasks.

The driver will:

- 1) Prepare for the curve as it becomes visible by completing the following steps:
 - a) Conduct a visual assessment.
 - b) Conduct a signage check.
 - c) Conduct a pavement marking check.
 - d) Conduct a traffic check.
 - e) Adjust speed as required.

Sub-tasks

- 2) <u>Travel</u> through the curve by completing the following steps:
 - a) Manage speed and following distance.
 - b) Steer through the curve following a proper path, based on vehicle off- tracking and clearance requirements.
 - c) Conduct a traffic check.
 - d) Maintain two-handed grip on the steering wheel as much as practicable.

Performance Element

3.3.3 <u>Changes lanes</u> in a commercial vehicle in a safe manner.

M

Lane changes include performing the following sub-tasks.

The driver will:

- 1) Prepare for the lane change by completing the following steps:
 - a) Conduct a traffic check.
 - b) Conduct a pavement marking check.
 - c) Manage speed and following distance.
 - d) Activate turn signal correctly and on time.

Sub-tasks

- 2) Execute the lane change by completing the following steps:
 - a) Steer vehicle into the correct position in the new lane.
 - b) Manage speed and following distance to allow adequate time to observe, react and manoeuvre vehicle if necessary.
 - c) Cancel turn signal within about 5 seconds after completion.

Summary of Hours					
Competence Category	Racic Driving Tachniques				
In	-Class	In-Yard	In-Cab	Total Hours	
	2	-	16	18	

Learning Outcome	3.4 At the end of this training program the graduate will be able to operate a commercial vehicle in a safe manner and perform the required manoeuvres for driving on <u>urban, rural, commercial, and industrial roads</u> .
Performance Element	3.4.1 <u>Crosses intersections</u> in a commercial vehicle in an urban setting in a safe manner. M
	Crossing an intersection includes performing the following sub-tasks.
	The driver will:
	1) <u>Prepare</u> for crossing the intersection as it becomes visible by completing the following steps:
	a) Conduct a visual assessment.
	b) Conduct a signage check.
	c) Conduct a pavement marking check.
	d) Conduct a traffic control signals check.
	e) Conduct a traffic check.
Sub-tasks	2) <u>Approach</u> the boundary of the intersection while completing the following steps:
	a) Read and respond to signage.
	b) Read and respond to traffic control signals.
	c) Conduct a traffic check.
	d) Plan a crossing path.
	3) Stop at an intersection when required by completing the following steps:
	a) Read and respond to signage.
	b) Read and respond to traffic control signals.
	c) Stop the vehicle in the correct location.
	d) Keep wheels in proper position and two hands on the wheel while stopped.
	e) Drive vehicle forward when necessary.
	4) Proceed across the intersection after stopping, or when no stop is necessary, by completing the following steps:
	a) Conduct a traffic signal light check.
	b) Conduct a traffic check.
	c) Interpreting right of way obligations correctly.

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d) Steer the vehicle through the proper path.

e) Manage speed and following distance.

Performance Element

3.4.2 <u>Turns at intersections</u> in a commercial vehicle in an urban setting in a **M** safe manner.

Turning at intersections includes performing the following sub-tasks.

The driver will:

- 1) Select the correct lane for starting the turn.
- 2) Activate turn signal correctly and on time.
- 3) Conduct a continuous traffic check while turning.

Sub-tasks

- 4) Manage speed and following distance.
- 5) Interpret right-of-way obligations correctly.
- 6) Steer through the intersection following a proper path, based on vehicle offtracking and clearance requirements.
- 7) Select the correct lane for travel after the turn.
- 8) Cancel turn signal after completion (never more than 5 seconds).

Summary of Hours

Competence Category	Basic Driving Techniques				
In	-Class	In-Yard	In-Cab	Total Hours	
	2	-	1	3	

Learning Outcome	3.5 At the end of this training program the graduate will be able to operate a commercial vehicle in a safe manner and perform the required manoeuvres for driving on highways/expressways.
Performance Element	3.5.1 Enters a highway/expressway in a commercial vehicle in a safe manner.
	Entering a highway/expressway includes performing the following sub-tasks.
	The driver will:
	1) Conduct a traffic check.
	2) Manage vehicle speed according to conditions, posted advisories.
	3) Conduct a pavement marking check and stay within markings.
Sub-tasks	4) Change lanes or merge as necessary on the ramp.
	5) Negotiate the ramp at appropriate speed.
	6) Manage following distance.
	7) Activate turn signal correctly and on time.
	8) Adjust vehicle speed within the acceleration ramp to facilitate merge into traffic.
	9) Interpret right-of-way obligations correctly.
	10) Merge onto highway/expressway maintaining suitable distance from other vehicles and adjusting speed as needed, responding to metered ramp entry systems where applicable.
	11) Cancel turn signal after merge is complete (never keep signal on more than 5 seconds).
Performance Element	3.5.2 Exits a highway/expressway in a commercial vehicle in a safe manner. M
	Exiting a highway/expressway includes performing the following sub-tasks.
	The driver will:
	1) Conduct a traffic check.
	2) Manage following distance.
	3) Reduce speed as appropriate (neither too soon or too late).
Sub-tasks	4) Activate turn signal correctly and on time.
	5) Conduct a pavement marking check and stay within markings.
	6) Drive onto exit ramp as soon as space is available.
	7) Decelerate as necessary within deceleration ramp.

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10) Cancel turn signal after getting fully into exit lane.

8) Manage vehicle speed according to conditions and posted advisories.

9) Negotiate the ramp at appropriate speed and change lanes or merge as necessary.

Summary of Hours

Competence Category	Basic Driving Techniques			3
In	-Class	In-Yard	In-Cab	Total Hours
	8	2.5	32	42.5

4-PROFESSIONAL DRIVING HABITS

4

Competence

Category

_	4.1 A	t the end of this training program the graduate will be able to	
Outcome	ap	oply defensive driving techniques.	
Learning Indicators	4.1.1	Explains the importance of defensive driving habits.	M
mulcators	4.1.2	Explains their "duty of care" to proactively protect other road users from harm.	M
	4.1.3	Explains their responsibility to sharing the road surface with pedestrians and other vehicles of various dimensions, speeds and purposes, and the consequences of failing to do so and how the additional size and weight of their vehicle may be perceived by other road users.	M
Performance Elements	e _{4.1.4}	Observes and critiques personal driving techniques to identify ways to improve.	M
	4.1.5	Monitors the actions of other drivers, changing weather and changing road surfaces.	M
	4.1.6	Adjusts driving techniques to match the vehicle configuration, cargo weight, center of gravity, and driving experience.	M
	4.1.7	Recognizes and takes steps to avoid situations that might cause anger, hostility or danger.	M
	4.1.8	Is courteous, and yields to other motorists, cyclists, pedestrians and slow-moving vehicles.	М
	4.1.9	Scans mirrors, instruments and gauges regularly and systematically.	M
	4.1.10	Explains the visual cues and other signs of potentially hazardous traffic situations.	М
	4.1.11	Maintains an appropriate following distance in all driving conditions.	М
	4.1.12	Maintains attention and avoids sources of distraction while driving.	M
	4.1.13	Maintains vehicle speed that is appropriate for road and traffic conditions and adheres to regulations.	M
	4.1.14	Observes traffic patterns and other road users and selects a safe roadside location for stopping and/or parking, and resumes safely back into traffic.	M

Summary of Hours

Competence Category	Professional Driving Habits			
In	-Class	In-Yard	In-Cab	Total Hours
	5	-	-	5

Learning Outcome		t the end of this training program the graduate will be able to pply fuel efficient driving habits.	
Learning Indicators	4.2.1	Explains the importance of fuel-efficient driving methods.	M
mulcators	4.2.2	Explains the use of auxiliary power units and "shore power".	R
	4.2.3	Describes the use of different fuel types, vehicle technology, fuel additives, etc. to help reduce fuel consumption.	R
Performan Elements	ce _{4.2.4}	Accelerates at a smooth and gradual rate.	M
	4.2.5	Anticipates when most changes in speed, gear selection and surrounding space will be necessary.	М
	4.2.6	Operates the engine and transmission close to the fuel-efficient rpm range whenever possible.	R
	4.2.7	Applies progressive shifting and selects the engine rpm and gear that are best for the vehicle speed and load, when driving a vehicle with manual transmission.	R
	4.2.8	Controls shift points by adjusting the throttle, when driving a vehicle with an automated manual transmission.	R
	4.2.9	Looks ahead continually, anticipates the need to change speed, and gradually changes speed.	M
	4.2.10	Uses cruise control whenever possible and appropriate for driving conditions.	R
	4.2.11	Idles a vehicle's engine as little as possible.	M
	4.2.12	Sets up vehicle to minimize the gap between tractor and trailer.	R

Summary of Hours

Competence Category	Professional Driving Habits			
In	-Class	In-Yard	In-Cab	Total Hours
	.5	-	-	.5

Competence Category

5.1

5-TRACTOR-TRAILER OFF-ROAD TASKS & MANOEUVRES

5

Learning
Outcome

At the end of this training program the graduate will be able to perform backing and parking manoeuvres with a tractor-trailer.

Performance Element

5.1.1 Performs <u>straight-line backing</u> manoeuvres with a tractor-trailer unit **M** in a safe manner.

Manoeuvre Space - straight-line backing manoeuvres will be in a space that is between 3.5 and 3.7 metres wide, and 30 metres long.

Completion of straight-line backing manoeuvres includes performing the following sub-tasks.

The driver will:

- 1) Check mirror set up.
- 2) Position the tractor-trailer for the backing manoeuvre.
- 3) Secure the vehicle and activate the warning flashers.

Sub-tasks

- 4) Exit the vehicle to examine the manoeuvre space and check vehicle position.
- 5) Re-enter the vehicle, open windows and silence audio devices.
- 6) Sound vehicle horn briefly.
- 7) Reverse into the space at idle speed.
- 8) Pull up the vehicle to align it during the manoeuvre.
- 9) Exit the tractor to examine space and vehicle alignment no more than once during the manoeuvre.
- 10) Complete the reverse movement while staying entirely within the manoeuvre space.
- 11) Stop tractor-trailer movement upon reaching the desired position (Stop the tractor trailer gently when backing up to a solid fixture).
- 12) Complete the backing manoeuvre within a timeline or number of attempts as specified by the jurisdiction.

Performs offset backing manoeuvres with a tractor-trailer in a safe 5.1.2 manner.

Manoeuvre Space - offset backing manoeuvres will be from a space that is between 3.5 and 3.7 metres wide, and at least as long as the tractortrailer, into an adjacent space of the same dimensions. The pull-up space in front of the two spaces described must be at least one- and one-half times the length of the tractor-trailer. The manoeuvre will be learned from both sides

Completion of offset backing manoeuvres includes performing the following sub-tasks.

The driver will:

- 1) Check mirror set up.
- 2) Drive the tractor-trailer forward out of the starting position.
- 3) Align the tractor-trailer with the target space while driving forward into the pull up area.

Sub-tasks

- 4) Secure the vehicle and activate the warning flashers.
- 5) Exit the vehicle to examine the manoeuvre space from outside the vehicle and check vehicle position if necessary.
- 6) Re-enter the vehicle, open windows and silence audio devices.
- 7) Sound vehicle horn briefly.
- 8) Reverse into the space at idle speed.
- 9) Pull up the tractor-trailer to align it during the manoeuvre.
- 10) Exit the tractor to examine space and vehicle alignment no more than twice during the manoeuvre.
- 11) Complete the reverse movement while staying entirely within the manoeuvre space.
- 12) Stop tractor-trailer movement upon reaching the desired position.
- 13) Stop the tractor-trailer gently when backing up to a solid fixture.
- 14) Complete the backing manoeuvre within a timeline or number of attempts as specified by the jurisdiction.

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M

Performance Element

Performs alley-dock backing manoeuvres with a tractor-trailer in a 5.1.3 safe manner.

Manoeuvre Space - alley-dock backing manoeuvres will be into a space that is between 3.5 and 3.7 metres wide, and at least as long as 2/3 the length of the tractor-trailer, starting with the vehicle positioned perpendicular to the space and with the front of the tractor directly in front of it. The pull-up space in front of the backing target space must be no deeper than the length of the vehicle. The manoeuvre will be learned from both sides.

Completion of offset backing manoeuvres includes performing the following sub-tasks.

M

The driver will:

- 1) Check mirror set up.
- 2) Drive the tractor-trailer forward out of the starting position.
- 3) Align the tractor-trailer with the target space while driving forward into the pull up area.

Sub-tasks

- 4) Secure the vehicle and activate the warning flashers.
- 5) Exit the vehicle to examine the manoeuvre space from outside the vehicle and check vehicle position if necessary.
- 6) Re-enter the vehicle, open windows and silence audio devices.
- 7) Sound vehicle horn briefly.
- 8) Reverse into the space at idle speed.
- 9) Pull up the vehicle to align it during the manoeuvre.
- 10) Exit the vehicle to examine space and vehicle alignment no more than twice during the manoeuvre.
- 11) Complete the reverse movement while staying entirely within the manoeuvre space.
- 12) Stop vehicle movement upon reaching the desired position.
- 13) Stop the vehicle gently when backing up to a solid fixture.
- 14) Complete the backing manoeuvre within 10 minutes.

Performance Element

5.1.4 Performs parallel parking manoeuvres with a tractor-trailer in a safe manner.

Manoeuvre Space – parallel parking manoeuvres will be into a space that is between 3.5 and 3.7 metres wide, and at least as long as 1.5 times the length of the tractor-trailer. The manoeuvre will be learned from both sides.

Completion of offset backing manoeuvres includes performing the following sub-tasks.

The driver will:

- 1) Check mirror set up.
- 2) Drive the tractor-trailer forward out of the starting position.
- 3) Secure the vehicle and activate the warning flashers.
- 4) Exit the vehicle to examine the manoeuvre space from outside the vehicle and check vehicle position if necessary.

Sub-tasks

- 5) Re-enter the vehicle, open windows and silence audio devices.
- 6) Sound vehicle horn briefly.
- 7) Reverse into the space at idle speed.
- 8) Pull up the tractor-trailer to align it during the manoeuvre.
- 9) Exit the tractor-trailer to examine space and vehicle alignment no more than once during the manoeuvre.
- 10) Stop tractor-trailer movement upon reaching the desired position.
- 11) Complete the reverse movement while staying within 1 meter of the curb or curb markers.
- 12) Complete the parking manoeuvre within a time or number of attempts as specified by the jurisdiction.

Summary of Hours

Competence Category	Tractor	5		
In	-Class	In-Yard	In-Cab	Total Hours
	1	2	12	15

.earning 5.2 At the end of this training program the graduate will be able to Outcome safely perform tractor-trailer coupling and uncoupling tasks.

Performance Element

Couples a tractor-trailer unit in a safe manner. 5.2.1

М

Completion of coupling tasks includes performing the following sub-tasks.

The driver will:

- 1) Start the coupling task:
 - Inspect lower couplers and connectors while outside the vehicle.
 - b) Enter the vehicle and begin reversing slowly, approach the trailer with the tractor as straight in line as possible, overcome any challenges involving ground surface conditions.
- 2) Continue coupling with a tractor with fixed suspension:
 - a) Align the tractor and trailer, reversing the vehicle until the fifth wheel is just ahead of trailer, touching the trailer or slightly under, but not against the kingpin.

Sub-tasks

- b) Exit the tractor and check the upper coupler and confirm that the kingpin is aligned (no more than 10 cm {4 in.} from the center of the fifth wheel lower coupler), adjust height if necessary so that contact of the upper coupler will be on the bottom half of the fifth wheel lower coupler.
- Re-enter the vehicle and continue reversing toward the trailer, monitor the trailer's position during coupling using the mirrors to confirm proper alignment.
- d) Reverse the tractor, gently but firmly engage the fifth wheel.
- e) Listen for and feel the fifth wheel latch into its locked position.
- 3) Continue coupling with a tractor having air suspension offering a suspension drop feature:
 - a) Reverse the vehicle slowly toward the trailer until the fifth wheel just touches the trailer or is about to touch it.
 - b) Exit the tractor and check vehicle heights.
 - Re-enter the tractor and release (dump) the tractor air suspension, then c) reverse the tractor until the fifth wheel lower coupler is fully under the front of the trailer, but still ahead of the king pin.
 - d) Restore the tractor air suspension to its normal height.
 - Monitor the trailer's position during coupling using the mirrors to confirm e) proper alignment.
 - f) Reverse the tractor, gently but firmly engaging the fifth wheel.
 - g) Listen for and feel the fifth wheel latching into its locked position.

Sub-tasks

- 4) Complete the coupling for all suspension types:
 - a) Attempt to move the tractor forward (perform a "tug test").
 - b) Exit the vehicle and visually confirm the fifth wheel is locked by checking the fifth wheel contact, the release handle position and the latch.
 - c) Connect the air and electrical lines properly and confirm normal operation.
 - d) Raise the trailer landing gear fully and stow the handle into its retainer. e) Reenter the vehicle and supply air to the trailer with the trailer supply valve, monitor the air pressure gauges, and confirm air pressure gauges show normal pressure levels.
 - f) Drive forward slowly a short distance and apply either the trailer service brakes only, or the full-service brakes to test brake operation.

Performance Element

5.2.2 Uncouples a tractor-trailer in a safe manner.

M

Completion of uncoupling tasks includes performing the following sub-tasks.

The driver will:

- 1) Start the uncoupling task:
 - a) Confirm the location is suitable and safe for uncoupling.
 - b) Park the trailer in the selected location and apply the trailer parking brakes.

Sub-tasks

- c) Secure and exit the tractor.
- d) Place any required wheel chocks and blocks or engage locks into position.
- e) Place adequate support material under the landing gear, if necessary.
- f) Operate trailer air suspension controls as required.
- g) Lower the trailer landing gear until it is just above the ground, just touches the ground, but does not raise the trailer from the fifth wheel.
- h) Leave the landing gear handle in low range and stow the handle.
- i) Disconnect air and electrical connections and stow them.
- j) Release the fifth wheel coupler lock.
- 2) For a tractor with fixed suspension
 - a) Re-enter the vehicle and drive forward slowly to release the fifth wheel, watch the trailer in the mirrors or out of the rear window, confirm the trailer is stable.
 - b) When the fifth wheel lower coupler is fully out from under the trailer, but the tractor is still under the front of the trailer, exit the tractor and check that the trailer is stable and secure.
 - c) Re-enter the vehicle and drive forward slowly until the tractor is clear of the trailer.

Sub-tasks

- 3) For a tractor with air suspension having <u>suspension drop</u> feature:
 - a) Re-enter the vehicle and drive forward slowly far enough to unlatch the fifth wheel coupler and stop.
 - b) Operate the control to drop the tractor suspension
 - c) Watch the trailer in the mirrors or out of the rear window, confirm the trailer is stable.
 - d) When the fifth wheel lower coupler is fully out from under the trailer, but the tractor is still under the front of the trailer, exit the tractor and check that the trailer is stable and secure.
 - e) Re-enter the vehicle and drive forward slowly until the tractor is clear of the trailer.
 - f) Raise the tractor suspension to the normal position.

Competence Category	Tractor-Trailer Off-Road Tasks & Ma		Manoeuvres	5
In-Class		In-Yard	In-Cab	Total Hours
1		1	6 off road	8

Competence Category

6-DOCUMENTS, PAPERWORK & REGULATORY REQUIREMENTS

6

Learning Outcome	a	t the end of this training program the graduate will be able to dminister written workplace documents, and communicate ffectively through written means.	
Learning Indicators	6.1.1	Identifies workplace forms that are needed to establish and sustain employment.	R
	6.1.2	Identifies and describe the meaning of messages and symbols on cargo packaging and cargo documents such as way-bills, packing lists, delivery documents, instructions, workplace hazard information, etc.	R
	6.1.3	Identifies and describes the basic purpose, importance and proper condition of required vehicle related documents.	M
	6.1.4	Explains the need to access written workplace information such as apply, procedure and policy documents related to cargo securement, job task analysis, hazard assessment, etc.	R
Performanc Elements	e 6.1.5	Seeks clarification and assistance when they do not fully understand any written workplace documents.	R
	6.1.6	Composes and delivers basic written information and messages relating to driving activities.	R
	6.1.7	Accesses information and reference tables such as those related to vehicle weights and dimensions.	M
	6.1.8	Records some basic information onto cargo related documents such as way-bills.	R
Learning	6.2	At the end of this training program the graduate will be able to compl	lete
Outcome		basic mathematical calculations required for commercial vehicle oper	
Learning Indicators	6.2.1	Describes information needed for fuel tax reports.	R

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Converts simple imperial and metric measurements using tables,

mathematical formulas, or conversion programs.

6.2.2

R

Performance Elements	6.2.3	Calculates route and trip distances.	R
	6.2.4	Estimates fuel consumption rates, and how far a vehicle can travel on a particular quantity of fuel.	R
	6.2.5	Determines allowable axle weights.	R
	6.2.6	Determines basic vehicle dimension and axle spacing requirements, and complete calculations to identify compliance with vehicle requirements such as "bridge formulas", etc.	R
	6.2.7	Calculates trip durations to determine arrival times and plan departure times.	R
	6.2.8	Estimates and records cargo weight.	R
Learning	6.3	At the end of this training program the graduate will be able to use	
Outcome		computers, electronic and communication devices common in common vehicle operations.	ercial
Performance Elements	6.3.1	Uses a calculator or computer to complete some simple tasks.	R
	6.3.2	Operates a hand-held electronic or communication device for basic tasks and describes when and where such use is permitted.	M
	6.3.3	Completes basic data-entry, form-filling and online search tasks.	R
Learning	6.4	At the end of this training program the graduate will be able to	
Learning Outcome	6.4	plan ahead, anticipate problems, and begin to deal with an	
	6.4 .1		M
Outcome Learning		plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first	M M
Outcome Learning	6.4.1	plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first confirming facilities and preferred routes. Identifies some special requirements relating to a vehicle, load,	
Outcome Learning	6.4.1	plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first confirming facilities and preferred routes. Identifies some special requirements relating to a vehicle, load, routing or commodity. Identifies sources of reliable information about weather and road	M
Outcome Learning	6.4.1 6.4.2 6.4.3	plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first confirming facilities and preferred routes. Identifies some special requirements relating to a vehicle, load, routing or commodity. Identifies sources of reliable information about weather and road conditions. Describes the need to carry required emergency equipment on or	M M
Outcome Learning	6.4.1 6.4.2 6.4.3 6.4.4	plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first confirming facilities and preferred routes. Identifies some special requirements relating to a vehicle, load, routing or commodity. Identifies sources of reliable information about weather and road conditions. Describes the need to carry required emergency equipment on or inside the vehicle. Describes how and when to use emergency equipment carried on the vehicle. (such as a fire extinguisher, safety warnings (triangles, flares),	M M
Outcome Learning	6.4.1 6.4.2 6.4.3 6.4.4 6.4.5	plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first confirming facilities and preferred routes. Identifies some special requirements relating to a vehicle, load, routing or commodity. Identifies sources of reliable information about weather and road conditions. Describes the need to carry required emergency equipment on or inside the vehicle. Describes how and when to use emergency equipment carried on the vehicle. (such as a fire extinguisher, safety warnings (triangles, flares), spill kits, etc.	M M M
Outcome Learning	6.4.1 6.4.2 6.4.3 6.4.4 6.4.5	plan ahead, anticipate problems, and begin to deal with an emergency situation Explains the risk of traveling to an unfamiliar location without first confirming facilities and preferred routes. Identifies some special requirements relating to a vehicle, load, routing or commodity. Identifies sources of reliable information about weather and road conditions. Describes the need to carry required emergency equipment on or inside the vehicle. Describes how and when to use emergency equipment carried on the vehicle. (such as a fire extinguisher, safety warnings (triangles, flares), spill kits, etc. Describes typical vehicle workplace risks and hazards.	M M M

Performance Elements	6.4.10	Accesses sources of maps and electronic route information.	M
	6.4.11	Accesses sources of information about commercial vehicle routes, road construction, road closures, height clearances, weight restrictions, permit requirements, etc.	M
	6.4.12	Prepares a route plan that considers vehicle size and weight.	M
	6.4.13	Demonstrates use of some basic hand tools.	R
	6.4.14	Properly wears or otherwise uses appropriate Personal Protective Equipment.	M
	6.4.15	Locates emergency contact information.	M
	6.4.16	Adjusts a vehicle's fifth wheel setting, axle position, or suspension system.	M
	6.4.17	Uses a safe method for operating cargo access doors.	R
	6.4.18	Applies safe driving technique when proceeding through construction zones and detours.	M

Summary of Hours

Competence Category	Documents, Paperwork & Regulatory Requirements			
In-Class		In-Yard	In-Cab	Total Hours
	4	-	-	4

Competence Category

7-VEHICLE INSPECTION ACTIVITIES

Learning		At the end of this training program the graduate will be able to	
Outcome		inspect and maintain commercial vehicles.	
Learning Indicators	7.1.1	Explains the need for every workplace to establish a system, and keep a written or electronic record, for periodically inspecting and maintaining vehicles.	M
	7.1.2	Explains that every commercial vehicle must meet prescribed performance standards while operating on a highway.	M
	7.1.3	Explains the importance of enforcement and audit programs to ensure that inspection and maintenance is adequate.	M
	7.4.4		
Performand Elements	ce 7.1.4	Inspect the condition of vehicles and operating components.	М
	7.1.5	Uses Personal Protective Equipment during maintenance and inspection activities.	M
	7.1.6	Confirms that every commercial vehicle being operated displays valid evidence that regulatory periodic inspections and workplace-specific inspections have been conducted.	M
	7.1.7	Inspects the level of operating fluids including fuel, engine oil, engine coolant, power steering oil, windshield washer, diesel exhaust fluid (DEF), etc and top up when necessary.	M
	7.1.8	Inspects basic vehicle components, such as drive belts, hoses, tires, switches etc.	M
	7.1.9	Completes minor vehicle repairs such as: repair minor electrical connection problem, replace lamp, gladhand seal or wiper blade, reset circuit breaker, etc.	R
Learning Outcome		At the end of this training program the graduate will be able to conduct required daily inspections and monitor the vehicle's safe condition.	
Learning Indicators	7.2.1	Explains their responsibility for the safe condition of each commercial vehicle they operate.	M
	7.2.2	Explains the jurisdictional regulations listing all minor and major defects that the driver is expected to identify.	M
	7.2.3	Explains that the jurisdictional regulations include the most common defects/unsafe conditions that a driver may encounter.	М

Performance Elements	7.2.4	Conducts daily inspections and identifies minor and major defects listed in relevant jurisdiction legislation.	M
	7.2.5	Identifies if a minor or major defect listed in jurisdictional legislation is present on their vehicle.	M
	7.2.6	Completes and signs written or electronic daily inspection reports that declare the vehicle's condition.	M
	7.2.7	Monitors vehicle condition on a continuous basis, according to the provincial legislation while driving or otherwise being responsible for the vehicle and updates the inspection report as required.	M
	7.2.8	Records on an inspection report every minor defect found during an inspection or while operating a vehicle, and report the minor defect according to workplace practices, procedures and policies.	M
	7.2.9	Records immediately on an inspection document and report every major defect found during an inspection, or while operating a vehicle and stops operating the vehicle.	M
	7.2.10	Maintains a vehicle's out-of-service status whenever a major defect is identified, until the condition is corrected.	M
	7.2.11	Conducts regular enroute and post-trip vehicle inspections	M
	7.2.12	Adheres to the regulations whenever accepting an inspection report from another worker.	M
	7.2.13	Carries a valid inspection report for each vehicle operated and a copy of the required jurisdictional legislation and produce these items when required by an enforcement officer.	M

Learning Outcome	7.3 At the end of this training program the graduate will be able to inspect each component or system listed in jurisdictional regulation.				
Performance Element	7.3.1 Inspects the air brake system. M				
	Completing inspection includes performing the following sub-tasks.				
	1) The driver will inspect for the following minor defects:				
	a) audible air leak.				
	b) slow air pressure build-up rate.				
Sub-tasks	2) The driver will inspect for the following <u>major</u> defects:				
	a) pushrod stroke of any brake exceeds the adjustment limit.				
	b) air loss rate exceeds the prescribed limit.				
	c) inoperative towing vehicle (tractor) protection system.				
	d) low air warning system fails, or system is activated.				
	e) inoperative service, parking or emergency brake.				
	e) inoperative service, parking or emergency brake.				

c) coupler is insecure, or movement exceeds prescribed limit.

Performance Element

7.3.4 Inspects dangerous goods. M

Completing inspection includes performing the following sub-tasks.

Sub-tasks

- 1) The driver will inspect for the following major defect:
 - a) dangerous goods requirements not met.

Performance Element	7.3.6 Inspects driver controls.	M
	Completing inspection includes performing the following sub-tasks.	
	1) The driver will inspect for the following minor defect:	
Sub-tasks	 a) accelerator pedal, clutch, gauges, audible and visual indicators or instruments fail to function properly. 	
Performance Element	7.3.7 Inspects driver seat.	М
	Completing inspection includes performing the following sub-tasks.	
	1) The driver will inspect for the following minor defects:	
	a) seat is damaged or fails to remain in set position.	
Sub-tasks	2) The driver will inspect for the following <u>major</u> defects:	
	a) seatbelt or tether belt is insecure, missing or malfunctions.	
Performance Element	7.3.8 Inspects electric brake system if equipped.	R
	Completing inspection includes performing the following sub-tasks.	
	1) The driver will inspect for the following minor defect:	
	a) loose or insecure wiring or electrical connection.	
Sub-tasks	2) The driver will inspect for the following <u>major</u> defects:	
	a) inoperative breakaway device.	
	b) inoperative brake	
Performance Element	7.3.9 Inspects emergency equipment and safety devices.	М
	Completing inspection includes performing the following sub-tasks.	
Sub-tasks	 The driver will inspect for the following minor defect: a) emergency equipment is missing, damaged or defective. 	

Performance M 7.3.10 Inspects exhaust system. Element Completing inspection includes performing the following sub-tasks. 1) The driver will inspect for the following minor defect: Sub-tasks a) exhaust leak. 2) The driver will inspect for the following major defect: a) leak that causes exhaust gas to enter the occupant compartment. Performance 7.3.11 Inspects frame and cargo body. М Element Completing inspection includes performing the following sub-tasks. 1) The driver will inspect for the following minor defect: Sub-tasks a) damaged frame or cargo body. 2) The driver will inspect for the following <u>major</u> defect: a) visibly shifted, cracked, collapsing or sagging frame member(s). Performance M 7.3.12 Inspects fuel system. **Element** Completing inspection includes performing the following sub-tasks. 1) The driver will inspect for the following minor defect: Sub-tasks a) missing fuel tank cap. 2) The driver will inspect for the following major defects: a) insecure fuel tank. b) dripping fuel leak. Performance 7.3.13 Inspects a vehicle's **general** condition. M Element Completing inspection includes performing the following sub-tasks. 1) The driver will inspect for the following major defect: Sub-tasks a) serious damage or deterioration that is noticeable and may affect the vehicle's

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safe operation.

Performance M 7.3.14 Inspects glass and mirrors. Element Completing inspection includes performing the following sub-tasks. 1) The driver will inspect for the following minor defects: Sub-tasks a) required mirror or window glass fails to provide the required view to the driver as a result of being cracked, broken, damaged, missing or maladjusted. b) required mirror or glass has broken or damaged attachments onto vehicle body. **Performance** M 7.3.15 Inspects heater/defroster. **Element** Completing inspection includes performing the following sub-tasks. 1) The driver will inspect for the following minor defect: a) control or system failure. Sub-tasks 2) The driver will inspect for the following <u>major</u> defect: a) defroster fails to provide unobstructed view through the windshield. **Performance** M 7.3.16 Inspects **horn**. **Element** Completing inspection includes performing the following sub-tasks. Sub-tasks 1) The driver will inspect for the following minor defect: a) vehicle has no operative horn.

Performance Element

7.3.17 Inspects hydraulic brake system.

R

Completing inspection includes performing the following sub-tasks.

1) The driver will inspect for the following minor defect:

Sub-tasks

- a) brake fluid level is below indicated minimum level.
- 2) The driver will inspect for the following major defects:
 - a) parking brake is inoperative.
 - b) brake boost or power assist is not operative.
 - c) brake fluid leak.
 - d) brake pedal fade or insufficient pedal reserve.
 - e) activated (other than ABS) warning device.
 - f) brake fluid reservoir is less than ¼ full.

Performance Element

7.3.18 Inspects lamps and reflectors.

M

Completing inspection includes performing the following sub-tasks.

1) The driver will inspect for the following minor defects:

Sub-tasks

- a) required lamp does not function as intended.
- b) required reflector is missing or partially missing.
- 2) The driver will inspect for the following <u>major</u> defects <u>that can only be present</u> when use of lamps is required:
 - a) failure of both low-beam headlamps.
 - b) failure of both rearmost tail lamps.
- 3) The driver will inspect for the following <u>major</u> defects <u>that may be present at any</u> time:
 - a) failure of a rearmost turn-indicator lamp.
 - b) failure of both rearmost brake lamps.

Completing inspection includes performing the following sub-tasks.

- 1) The driver will inspect for the following minor defect:
 - a) steering wheel lash (free-play) is greater than normal.

Sub-tasks

- 2) The driver will inspect for the following major defects
 - a) steering wheel is insecure, or does not respond normally.
 - b) steering wheel lash (free-play) exceeds prescribed limit.

Performance Element

7.3.20 Inspects suspension system.

M

Completing inspection includes performing the following sub-tasks.

- 1) The driver will inspect for the following minor defect:
 - a) air leak in air suspension system.

Sub-tasks

- b) broken spring leaf.
- c) suspension fastener is loose, missing or broken.
- 2) The driver will inspect for the following major defects
 - a) damaged or deflated air bag ['damaged' means patched, cut, bruised, cracked to braid, mounted insecurely].
 - b) cracked or broken main spring leaf or more than one broken spring leaf.
 - c) part of spring leaf or suspension is missing, shifted out of place or in contact with another vehicle component.
 - d) loose U-bolt.

Performance Element

7.3.21 Inspects tires.

M

Completing inspection includes performing the following sub-tasks.

- 1) The driver will inspect for the following minor defects:
 - a) damaged tread or sidewall of tire.

Sub-tasks

- b) tire leaking (if leak can be felt or heard, tire is to be treated as flat).
- 2) The driver will inspect for the following major defects
 - a) flat tire.
 - b) tire tread depth is less than wear limit.
 - c) tire is in contact with another tire or any vehicle component other than mud-flap.
 - d) tire is marked "Not for highway use".
 - e) tire has exposed cords in the tread or outer side wall area.

Performance Element

7.3.22 Inspects wheels, hubs and fasteners.

Completing inspection includes performing the following sub-tasks.

- 1) The driver will inspect for the following minor defects:
 - a) hub oil below minimum level (When fitted with sight glass)
 - b) leaking wheel seal.

Sub-tasks

- 2) The driver will inspect for the following <u>major</u> defects:
 - a) wheel has loose, missing or ineffective fastener.
 - b) damaged, cracked or broken wheel, rim or attaching part.
 - c) evidence of imminent wheel, hub or bearing failure.

Performance Element

7.3.23 Inspects windshield wiper/washer.

M

M

Completing inspection includes performing the following sub-tasks.

- 1) The driver will inspect for the following minor defects:
 - a) control or system malfunction.
 - b) wiper blade damaged, missing or fails to adequately clear driver's field of vision.

Sub-tasks

- 2) The driver will inspect for the following <u>major</u> defects <u>that can only be present when</u> <u>use of wipers or washer is required:</u>
 - a) wiper or washer fails to adequately clear driver's field of vision in area swept by driver's side wiper.

Summary of Hours

Competence Category		Vehicle Inspection Acti	7	
In-C	Class	In-Yard	In-Cab	Total Hours
4.5		8	•	12.5

Competence Category

8-HOURS OF SERVICE COMPLIANCE

Category	/		
Learning Outcome	co	t the end of this training program the graduate will be able to omply with the requirements of the hours of service egulations.	
Learning Indicators	8.1.1	Explains that the hours of service regulations apply to operating most commercial vehicle.	M
	8.1.2	Explains that they are on-duty when driving, in care and control of a vehicle and performing other types of work.	M
	8.1.3	Explains that must comply with hours of service regulations (NSC 9: daily driving and on-duty time; mandatory off-duty time; Daily off-duty time; etc.)	М
	8.1.4	Explains that driving a commercial vehicle is prohibited after being onduty for 14 hours in a day and work shift.	M
	8.1.5	Explains that driving a commercial vehicle is prohibited after accumulating 13 hours of driving in a day and work shift.	M
	8.1.6	Explains that driving a commercial vehicle is prohibited when 16 hours have elapsed since their work shift began.	M
	8.1.7	Identifies that a commercial vehicle may be operated for personal use, and for up to 75 km in a day when: the vehicle is empty and no trailer is being towed; no work of any sort is being done for a motor carrier; and the starting and ending odometer readings are recorded in the driver's daily log.	M
	8.1.8	Explains that a work shift begins when they return to on-duty, after being off-duty for at least 8 consecutive hours.	M
	8.1.9	Identifies they are still considered to be on the previous work shift when returning to on-duty after less than 8 hours off-duty, and they may be prohibited from driving if they exceed the 13, 14 and 16-hour rule.	M
	8.1.10	Explains that a 7-day cycle and allows a driver to be on-duty for 70 hours in a 7-day period.	M
	8.1.11	Identifies that a 14-day cycle and allows a driver to be on-duty for 120	М

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hours in a 14-day period.

Learning 8.1.12 Explains that a reset can only take place after the required M **Indicators** minimum number of consecutive hours off-duty, and this period is called a "reset". 8.1.13 Explains that resetting 7-day cycle requires at least 36 consecutive M hours off duty. 8.1.14 Identifies that resetting 14-day cycle requires at least 72 consecutive M hours off duty. 8.1.15 Identifies that up to 2 hours of the required minimum daily off-duty M time can be deferred from one day to the next as long as the deferred time is added to the period of 8-consecutive hours of off-duty time on the following day. 8.1.16 Identifies that when encountering specifically defined adverse driving M conditions, driving up to 2 hours beyond the daily limit is permitted, when remaining within the 16-hour work shift rule. 8.1.17 Identifies that, when adverse conditions cause a driver to be on-duty M longer than is normally permitted, and this causes a drive to exceed the hours in their cycle, those cycle requirements must be met by the end of the following day. 8.1.18 Identifies that on-duty, driving and off-duty requirements do not M apply when encountering an emergency, under certain circumstances. 8.1.19 Identifies that the "day" shown on a daily log is a 24-hour period which M generally begins at midnight but can start at any time set by a motor carrier. 8.1.20 Explains that the "home terminal" is the location at which the driver M ordinarily reports for work and may include a temporary work site location designated by the motor carrier. 8.1.21 Identifies reasons that driver's daily logs may also need to be R retained for tax purposes such as meal deductions, etc. 8.1.22 Identifies that a driver may be exempt from the requirements to M complete and carry a daily log when: they drive within a radius of 160 km from the location at which the driver starts the day and returns to the same location at the end of the day. 8.1.23 Identifies that proper use of the sleeper berth allows the off-duty M period to be split. 8.1.24 Identifies that off-duty periods can be split into shorter periods in M certain condition. 8.1.25 Identifies that Canadian hours of service (HOS) requirements differ R from those in the U.S.

Performance Elements	8.1.26	Calculates when they can begin to drive, and how many hours are available for driving each day.	M
	8.1.27	Stops driving when any one of the on-duty limits is reached.	M
	8.1.28	Stops driving a commercial vehicle after being on-duty for 14 hours in a day or work shift.	M
	8.1.29	Stops driving a commercial vehicle after accumulating 13 hours of driving in a day or work shift.	M
	8.1.30	Stops driving a commercial vehicle when 16 hours have elapse since their work shift began.	M
	8.1.31	Tracks their status within each day as defined on the daily log, and track the duty status within their work shift, which can start at any time of day.	M
	8.1.32	Maintains a complete, legible, and accurate driver's daily log (in a written or electronic format) that fully complies with the regulations	M
	8.1.33	Carries daily logs that apply to the preceding 14 days, whenever operating a commercial vehicle requiring the driver to carry a log.	M
	8.1.34	Retains daily logs as required by the regulations.	M

Summary of Hours

Competence Category	Hours of Service Compliance				
In	-Class	In-Yard	In-Cab	Total Hours	
5		-	-	5	

Competence Category

9-CARGO SECUREMENT & LOSS PREVENTION

Learning	9.1 A	at the end of this training program the graduate will be able to	
Outcome	C	omply with basic cargo securement requirements.	
Learning Indicators	9.1.1	Explains that every commercial vehicle transporting cargo must have the cargo secured according to the regulations.	M
	9.1.2	Explains that the requirement to secure cargo includes any material, equipment or other loose article carried on the vehicle, including dunnage, blocking, tarps, tools, equipment, spare materials, etc.	M
	9.1.3	Explains that all cargo must be secured so that it cannot fall off the vehicle, or in any way be lost.	M
	9.1.4	Explains that articles of cargo must be secured to prevent forward, rearward and sideways movement, and in some cases must also be secured to prevent upward movement.	M
	9.1.5	Explains that all cargo must be secured so that it cannot shift in a way that can affect a vehicle's stability or manoeuvreability in a negative way.	M
	9.1.6	Explains that cargo must be loaded in such a way that it does not interfere with the driver's ability to drive the vehicle safely and does not block vehicle entry or exit.	M
	9.1.7	Explains that articles of cargo are generally secured against the vehicle's structure and by using devices such as tiedowns, blocking and bracing.	M
	9.1.8	Describes methods for rating the strength of devices used to secure cargo and recognize that most cargo requires a minimum number of tiedowns with particular working load limit ratings.	R
	9.1.9	Explains that cargo tiedowns are specifically designed and rated for particular use, and must have a means to be tightened, and must be used according to the manufacturer instructions.	R
	9.1.10	Explains that tiedown ratings are determined by manufacturers, are expressed as a "working load limit" (WLL) and marked on the tiedowns.	R
	9.1.11	Describes how the combined strength of individual tiedowns used together to restrain cargo is called the "aggregate working load limit".	R
	9.1.12	Explains how friction between cargo and vehicle surfaces, and friction between different articles of cargo that are in contact, helps to keep some types of cargo secure.	R
	9.1.13	Describes how the size, shape and weight of cargo generally dictates the required number, strength and placement of tiedowns.	R

Learning 9.1.14 Explains how the aggregate working load limit of tiedowns used to R **Indicators** secure cargo must equal at least 50% of the cargo weight. 9.1.15 Explains how cargo fully enclosed within a vehicle structure will not M generally require tiedowns, but may require blocking, bracing or devices to increase friction between the vehicle and cargo. 9.1.16 Explains how individual pieces of cargo are "unitized" into larger units R of cargo. 9.1.17 Explains that drivers are not required to inspect cargo if a vehicle R has been sealed to prevent access and they have been instructed by their employer not to remove the seal. 9.1.18 Explains that some cargo can be secured according to general M regulatory requirements. 9.1.19 Explains how certain commodities require specific securing M methods, devices and equipment to comply with specific regulatory requirements. 9.1.20 Identifies that specific securement methods are required for: logs, M dressed lumber and similar building materials, metal coils, paper rolls, concrete pipe, inter-modal containers, automobiles, light trucks and vans, heavy vehicles equipment and machinery, flattened or crushed cars, roll-on/roll-off and hook-lift containers, boulders, etc **Performance** 9.1.21 Confirms that cargo securing methods or devices are the proper type, R **Elements** and are be properly used, strong enough, and in good condition. 9.1.22 Inspects cargo and methods used to secure the cargo before R driving, to confirm everything is properly secured to comply with regulations. 9.1.23 Inspects cargo and related articles at specific intervals during the R trip to ensure everything remains properly secured to comply with regulations. 9.1.24 Conducts inspection of the condition and integrity of tiedown R devices and adjusting tiedowns as necessary to keep cargo secure during transport.

Learning Outcome	9.2	At the end of this training program the graduate will be able to prevent cargo loss claims, and follow required procedures to maintain secure facilities, prevent cargo loss and avoid damage.	
Learning Indicators	9.2.1	Identifies that operation of cargo handling equipment must be performed in the proper manner, and only when a person is fully trained and authorized.	R
Performance Elements	9.2.2	Handles and loads cargo carefully and describe basic ways to confirm that all cargo is properly packaged, unitized, arranged and secured inside facilities and vehicles.	R
	9.2.3	Uses appropriate Personal Protective Equipment properly and recognize that such use may be required, inside or outside of every workplace, shipper facility and customer facility.	R
	9.2.4	Uses cargo seals, pin locks and similar vehicle security devices.	R

Summary of Hours

Competence Category	Cargo Securement & Loss Prevention			
In	-Class	In-Yard	In-Cab	Total Hours
	2	-	-	2

Competence Category

10-HANDLING EMERGENCIES

10

Categor	у		
Learning Outcome		t the end of this training program the graduate will be able to ssess and adapt to changing conditions.	
Learning Indicators	10.1.1	Describes common workplace hazards and risks and how such hazards and risks can change.	R
	10.1.2	Explains the role and importance of workplace practices, procedures and policies which are used to manage hazards and risks.	R
	10.1.3	Locates and understand workplace practices, procedures and policies which are used to manage hazards and risks.	R
	10.1.4	Explains the visual cues and other signs of potentially hazardous traffic situations.	M
Performano Elements	ce _{10.1.5}	Reviews and understands documented job task analyses and hazard assessments.	R
	10.1.6	Adapts to the presence of other motorists, pedestrians, cyclists and slow-moving vehicles which share the road with commercial vehicles.	M
	10.1.7	Watches for wildlife or livestock which can enter the space around a vehicle, particularly on routes known for collisions involving animals.	M
	10.1.8	Monitors and adheres to highway speed advisories.	M
	10.1.9	Maintains a high level of alertness while driving.	M
	10.1.10	O Scans conditions around the vehicle by looking ahead and using mirrors regularly and systematically.	M
	10.1.1	1 Monitors vehicle conditions by scanning instruments and gauges regularly and systematically.	M
	10.1.12	2 Monitors the movement and actions of other motorists while passing or being passed.	M
	10.1.13	3 Diffuses any situation that could cause anger, hostility or danger	M
	10.1.14	4 Exits the vehicle whenever necessary to inspect clearances and identify potential obstructions.	M
	10.1.1	Secures a vehicle properly before exiting the cab or vacating the driver seat.	M

Learning Outcome		t the end of this training program the graduate will be able to andle minor emergency incidents in a professional manner.	
Learning Indicators	10.2.1	Describes the typical kinds of incidents that must be reported to employers, police and other reporting agencies.	M
	10.2.2	Explains the importance of following the specific requirements of workplace practices, procedures and policies regarding collisions, close calls, injuries or other similar incidents.	R
	10.2.3	Explains the importance of workplace practices, procedures and policies relating to obligations and limitations in administering first aid.	R
	10.2.4	Describes the importance of conducting themselves according to workplace practices, procedures and policies in any emergency situation when speaking to police, media, other motorists and the public.	R
	10.2.5	Describes the importance of following workplace practices, procedures and policies when engaging emergency support such as: towing and recovery service, vehicle repair, breakdown, tire repair, etc.	R
Performance Elements	10.2.6	Uses warning devices and other emergency equipment in compliance with regulations.	М

Summary of Hours

Competence Category	Handling Emergencies			
In	-Class	In-Yard	In-Cab	Total Hours
	1.5	1	-	2.5

PART D - AIR BRAKES

Competence Category 11-		AIR BRAKES 11	11	
Learning Outcome	an	the end of this training program the graduate will have the knowledged the ability to operate air brake equipped vehicles safely and in mpliance with the applicable regulations	ge .	
Learning	11.1.1	Describes basic operating principles	M	
Indicator	11.1.2	Describes operation of supply sub-system	M	
	11.1.3	Describes operation of service-brake sub-system	M	
	11.1.4	Describes operation of spring (parking/emergency) brake sub-system	M	
	11.1.5	Describes operation of trailer sub-system	M	
	11.1.6	Describes effect of speed and weight on vehicle braking	M	
	11.1.7	Describes effect of brake adjustment on vehicle braking ability	M	
	11.1.8	Describes role and importance of safety regulations	M	
	11.1.9	Describes potential driver safety hazards	M	
	11.1.10	Describes correct response to brake system defects	M	
Performan	ce 11.1.11	Identifies brake components	M	
Elements	11.1.12	Conducts brake system inspection	M	
	11.1.13	Conducts brake system functional tests	M	
	11.1.14	Identifies brake system and component defects	M	

Summary of Hours

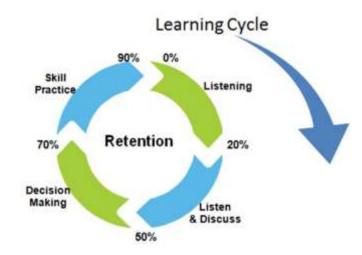
Competence Category	Air Brakes			11
In	-Class	In-Yard	In-Cab	Total Hours
	6.5	2	-	8.5

PART E - APPENDIX

Glossary of Terms

Assessment

Assessments confirm that the learner is acquiring the knowledge, skills and attitude required.



There are three types of progressive assessments:

Ipsative: Is an assessment for learning *prior* to beginning training to determine the ability and readiness to learn, with the expectation that other assessments follow for comparison.

Formative: Is an assessment **as** learning occurs to provide both student and instructor an indication of how well the learner is progressing. It provides relevant feedback to help the student improve.

Summative: Is an assessment of learning that provides a measurement of what the student **has** learned and is measured against the other assessments.

Acceptable assessment activities may be:

Knowledge: quizzes, case studies, problem solving, scenarios

Skill: demonstration, practical, hands on, problem solving

Attitude: demonstrated through discussion, action, display

Evaluation Sometimes interchanged with assessment, however, it should be a

process for evaluating the training program by students and

instructors/digital instructors in order to facilitate improvement of the

course.

Classroom Instruction Classroom instruction is the environment where in-person ELT training

is facilitated by an instructor through an approved training course provider

Class Size Maximum number of students is 15:1 in-class, excluding LMS. Maximum of

4:1 in-yard or in-cab. Time must be adjusted when more than one student is

in-cab.

Course Provider An organization that has met all the requirements and is approved to be a

training course provider.

Curriculum A document that provides a list of mandatory and recommended entry level

Framework driver competencies. Curricula development will use this framework.

An area with minimum/maximum space allotment to complete backing **Backing**

exercises.

Curriculum that combines in-person classroom and digital delivery of **Blended**

ELT.

Bobtailing Bob-tailing is the driving of a tractor unit without a trailer.

Digital Digital classroom instruction is any type of learning that is accompanied by

Classroom technology.

Dimensions

Learning

Instruction

Instructor

Digital An instructor who has met the jurisdictional requirements to teach and/or

provide course content support digitally to students

Highway Includes an expressway. A substitution is permitted to the highway

component by using a highway with a speed limit of at least 80km/h.,

only if:

The course provider is not within 100kms of a highway/expressway,

Manoeuvres for lane changes and merging on and off the highway/expressway must continue to be included in the training and

are to be simulated.

The classroom training facility must meet all jurisdictional occupational **Facility**

health and safety requirements. The classroom must be of appropriate size to accommodate the number of students; a table writing surface, lighting,

washroom facilities, training equipment as required, presentation equipment as required etc.

In-Class

This is the environment inclusive of classroom, digital and/or blended instruction where training occurs which would be related to knowledge development. It is expected that the use of various delivery methods to address adult learning principles will be applied in this environment. The classroom must meet the minimum standards. under "Facility".

In-Vehicle/In-Cab/ Behind the Wheel

This is the environment where 1:1 training occurs inside the vehicle and the vehicle is in motion. Backing, coupling/uncoupling are included in this description. A maximum of 4:1 ratio will be permitted if the vehicle configuration permits provided the time requirement is adjusted accordingly.

In-Yard/Around the Vehicle

This is the environment found in the yard and around a stationary vehicle. A maximum of 4:1 ratio will be permitted for training in this environment.

Instructional **Methods**

Instruction of students by qualified instructors/digital instructors will be delivered using various methods that are effective and appropriate for the content and leads to the success of the student. Methods using direct, indirect, experiential, interactive, and independent approaches are expected to be applied within a curriculum.

Direct: Instructor/digital instructor led delivery.

Indirect: Instruction received through activities.

Experiential: Instruction that provides a direct linkage to the knowledge/skills that will be performed on the job.

Interactive: Instruction that provides a continuous two-way transfer of information between the learner and instructor/digital instructor/other learners/learning-assisted technology.

Independent: Instruction received through self-discovery, or selfdirected activity.

Instructional Time

The mandatory time requirement is based on 1:1 instruction between an instructor/digital instructor and student.

Learning **Environment**

There are three learning environments identified for curriculum development: in-class (inclusive of classroom, digital and/or blended instruction), in-yard (around the vehicle), in-cab (behind the wheel).

Learner-centered

The approach to training delivery must take into account the learner, their prior knowledge and experience, and their unique way of learning. The delivery method would capitalize on the learner's strengths and adjust for weaknesses.

Logical · Sequencing

The delivery of the learning content is to be presented to the student in a progression that requires taking what was previously learned and building upon it; similar to a stairway.

Manage Speed/ Following · Distance

Managing speed includes space management and following distance to allow adequate time to observe, react, manoeuvre the vehicle and stop if necessary.

Mandatory **Competencies - M**

All competencies identified as **M** are mandatory for all curricula and are the core competencies used to reach the total of 103.5 training hours for the Commercial Truck Driver Training Standard (Class 1).

Manual/Automatic **Transmission**

Manual transmission training is not mandatory but rather, training can be conducted using either automatic, manual or both depending on the vehicles provided by the course provider.

Night Driving

The inclusion of night driving is highly recommended and would encompass performance elements found in sections 3, 4, 7, 9, and 10. Night would be defined as any time when illumination is required.

Observation (In-yard)

An instructor may choose to demonstrate a skill while the student observes. This would be considered 1:1 instruction. Observing other students perform, without the instructor present, is not included in the time requirements.

Payload Training

A portion of the training with a load is mandatory; however, the type of load and appropriate weight would be determined by the course provider. 15,000kg GVW or 50% of the payload at least 25% of the time and to a maximum of 75%. is acceptable.

Recommended **Competencies - R**

Competencies identified with an R are recommended for inclusion in a curriculum by industry, however, due to the many types of training providers, while recommended, the provider will determine if it is appropriate for their business to include. All R competencies are above and beyond the core competencies and are not included in the 103.5 Commercial Truck Driver Entry Level Training Standard (Class 1) hours.

Traffic

This includes all other road users: vehicles, pedestrians, cyclists, motorcycles, and other vulnerable road users.

Traffic Check/Road Users

When referencing a traffic check, it implies a comprehensive 360° observation in order to interpret all traffic hazards and road conditions, assess risk and take appropriate action.