



# Board/Authority Authorised Course Commercial Driver Training Program – Level 2A

School District/Independent School Authority Name	Kamloops/Thompson
School District/Independent School Authority Number	#73
Developed by	Ken Rife
Date Developed	December 2013
School Name	NorKam Secondary
Principal's Name (District)	Sheryl Lindquist
Superintendent Approval Date (for School Districts only)	
Superintendent Signature (for School Districts only)	
Board/Authority Approval Date	
Board/Authority Chair Signature	
Course Name	Commercial Driver Training Program – Level 2A
Grade Level of Course	11
Number of Course Credits	4
Number of Hours of Instruction	120
Prerequisite(s)	Level 1

## Special Training

Facilities or equipment required:

- Truck simulator
- Training aids



- Air brake training aids
- Shop
- Work gloves
- Safety vests
- Hard hats
- Safety glasses
- Applicable tools: wrenches, pressure gauges, rubber mallets

## Synopsis

Students will learn the basics of the operation, safety, driving techniques, and other related components of the professional driver occupation. Students will also learn about the career and how to obtain a professional class license. This course will promote independent thinking and problem solving.

## Rationale

Not only is being a professional truck driver a great profession but there is a massive demand for this highly-skilled occupation. A 2013 Conference Board of Canada report concludes that the age of the average truck drivers has increased more rapidly than the age of the average worker due to fewer young workers entering the industry. At the same time, demand for trucking services is projected to increase. By 2020, the gap between supply and demand of drivers is projected to be between 25,000 and 30,000 nationwide. In BC, the gap is anticipated to be between 2,200 and 4,500 depending on the strength of the economy. Because trucking plays an integral service role for so many industries, insufficient supply of truck drivers could have significant negative economic implications for the Canadian economy.

Unit/Topic	Title	Time
Unit 1	Basic Driving Skills	30 hours
Unit 2	Air Brakes	40 hours
Unit 3	Heavy Vehicle Braking	30 hours
Unit 4	Pre-trip Inspections	20 hours
	Total Hours	120

## UNIT 1 – BASIC DRIVING TECHNIQUES

**Objective:** Students will obtain the basic knowledge and skills required to operate commercial vehicles.

### Curriculum Organizer:

It is expected that students will learn:

- Professional attitudes
- Hitching and unhitching techniques



- Parking
- Turning techniques

## **Prescribed Learning Outcomes**

It is expected that students will:

1. Demonstrate professional attitudes including:
  - Time management skills
  - Workplace etiquette
  - Positive attitude
2. Learn hitching and unhitching techniques for all types of trailers
3. Demonstrate appropriate parking procedures
4. Be able to maneuver through curves and turns including:
  - Negotiating narrow bridges
  - Sharp turns right and left
  - Traffic circles and roundabouts
5. Understand tractor turning, radius, and rear-overhead swing

## **UNIT 2 – HEAVY VEHICLE BRAKING**

**Objective:** Students will obtain the basic driving skills and knowledge related to the operation of a commercial vehicle.

### **Curriculum Organizer:**

It is expected that students will learn:

- Why heavy vehicles take longer to stop than smaller passenger vehicles
- Why air brakes are used on heavy vehicles
- To describe the basic scientific principles of braking
- To identify the elements of stopping distance
- The effects of weight and speed on stopping distance
- How to brake safely in different situations

## **Prescribed Learning Outcomes**

It is expected that students will:

1. Learn physics of stopping and starting:
  - Heat
  - Motion
  - Friction
2. Learn power systems related to stopping
3. Stopping distances and stopping times
4. Speed and weight facts
5. Heating capacity of brakes
6. Learn the types of retarders and how they function



7. Learn braking techniques on icy roads, downgrades, runaway lanes, and when water is on roadways
8. Learn the difference between ABS and ATC braking systems

### **UNIT 3 – AIR BRAKES**

**Objective:** Students will learn the principles of compressed air and the associated components of an air brake system.

**Curriculum Organizer:**

It is expected that students will learn:

- The components of an air brake system
- To explain how an s-cam foundation brake works
- To describe what happens when one or more air brake system components fail
- To explain how trailer brakes are applied

### **Prescribed Learning Outcomes**

It is expected students will:

1. Understand why air brakes are used rather than hydraulic brakes on heavy commercial vehicles
2. Learn the components of air brake systems
3. Learn the air brake chamber components
4. Learn the function of compressed air and how it relates to the braking system
5. Learn the types of parking brakes and their function
6. Learn the components of a tractor-trailer air brake system
7. Be able to adjust brakes correctly

### **UNIT 4 – PRE-TRIP INSPECTIONS**

**Objective:** Students will learn the importance and how to conduct a pre-trip inspection.

**Curriculum Organizer:**

It is expected that students will learn:

- The importance of conducting a pre-trip inspection
- To explain how to perform an air brake system inspection
- List what to include in required report
- Complete a trip inspection report

### **Prescribed Learning Outcomes**

It is expected students will:

1. Learn why drivers are required to complete a trip inspection report
2. Demonstrate how to conduct a pre-trip inspection including:
  - Tractor-trailer combination pre-trip inspections
3. Understand when pre-hill inspections are necessary
4. Learn the advantages of doing regular pre-trip inspections



5. Demonstrate how to check the compressor and governor
6. Learn how to check the brake chamber push rod travel

### **Instructional Component**

- Direct instruction
- Group instruction
- Modeling
- Inquiry
- Guest speakers
- Field work
- Practical training
- Analysis

### **Assessment Component**

The assessment component will be based on performance standards from each unit. The emphasis will be on formative assessment with summative assessment to be weighted less.

Basic Driving Techniques – 20%

Heavy Vehicle Braking – 30%

Air Brakes – 30%

Pre-Trip Inspections – 20%

### **Assessment Tools**

- Quizzes
- Tests
- Self-Assessment Evaluation
- Checklists
- Peer Assessment and Evaluation
- Projects
- Practical Evaluations
- Teacher Anecdotal Records

### **Learning Resources**

1. Quebec Transportation Association (QTA) – Commercial Transport Curriculum.
2. QTA Vocational Training Program – Trucking
3. QTA Practice Portfolio 2013-2014 – Trucking.
4. Canadian Trucking Human Resources Council (CTHRC) National Occupational Standards – Professional Driver (2003).
5. ICBC Driving Commercial Vehicles – A Guide For Professional Drivers.
6. Canadian Trucking Human Resources Council (CTHRC) Professional Driver occupational Standards – Entry Level professional Driver.
7. Industry Training Authority (ITA)/BCTA Professional Truck Driver Program Outline.
8. HRSDC Truck Driver Essential Skill Profile Description.
9. Trucking in BC: An Illustrated history by Daniel Francis.
10. Get Your Career on the Road – DVD
11. The BC Trucking Industry: Proudly Serving BC ... and YOU.
12. Curbing Distracted Driving Teens and Trucks – DVD.
13. Defeating Distracted Driving – DVD.



14. Third Choice – DVD produced by the BC Business Council (BCBC) – Book and interactive 4-hour DVD that examines non-university careers. Provides information on more than 100 occupations. Include information on the transportation industry and specifically about the trucking industry.
15. Incident Investigations by the Trucking Safety Council of BC
16. Websites
  - <http://www.truckingcareers.ca/en>
  - <http://www.transpocity.ca/>
  - <http://www.getyourcareerontheroad.com/>
  - <http://www.workbc.ca/Careers/Career-Profiles-Results.aspx?repeatSearch=true>