



HDT2 – Heavy Duty Equipment Technician Apprenticeship Level 2

Trades

Effective Term & Year: Fall 2022

Program Outline Review Date: 2024-09-01

Program Area: Trades Apprenticeship Training

Description:

This 8-week program delivers the technical training required for Level 2 of the four-level Heavy Duty Equipment Technician Apprenticeship program. Apprentices will develop knowledge and practical skills related to describing engine fundamentals, alternate fuel systems, and diesel fuel injection

fundamentals, diagnosing and repairing electrical systems, engines support systems, diesel supply systems, mechanical fuel injection systems, electronic diesel fuel systems, and diesel emissions systems and engine brakes, as well as diagnosing and removing engines and components. This program includes classroom theory, demonstrations and practical hands-on training in a heavy-duty mechanic shop setting. Safe work practices related to the heavy-duty equipment trade are reinforced throughout the program.

Credentials Granted:

Level 2 Technical Training credit of the Heavy Duty Equipment Technician Apprenticeship program from SkilledTradesBC

Delivery Methods: Face-to-Face, Online

Program Duration: 8 weeks

Instructional Activity and Hours:

Activity

Hours

Instructional Hours (hrs/wk)	28 hrs/wk
Directed Studies (hrs/wk)	2 hrs/wk
Total (hrs/wk)	30 hrs/wk
Total Program Hours	240 Hours

Content Weighting:

Activity	Percentage
Classroom, Directed Studies or Online Instruction	50%
Seminar/Tutorials	50%

Admission Requirements:

Sponsored Heavy Duty Equipment Technician apprentice who has successfully completed Level 1 Heavy Duty Equipment Technician technical training or Heavy Mechanical Foundation program.

Flexible Assessment:

Credit cannot be awarded for this program through Flexible Assessment.

Program Transfer Credit:

For information about block transfer agreements between programs in British Columbia, Alberta, and elsewhere, please visit <http://www.cotr.bc.ca/transfer>.

To minimize transfer issues, check with an academic advisor at the institution that will receive the transfer credits.

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Program Outline Effective Date the following textbooks were in use (most current edition):

HD – Level 2: COTR Custom Package 2016. Queen’s Printer.

Program Competencies and Technical Training Content:

Upon the successful completion of this program, students will be able to:

HDAP 210 Electrical

- Diagnose and Repair Charging Systems
- Diagnose and Repair Starting Systems
- Diagnose and Repair Electrical Components and Systems
- Diagnose and Repair Electronic Components and Systems
- Diagnose and Repair Vehicle Management Systems

HDAP 211 Engines and Supporting Systems

- Describe Engine Fundamentals
- Diagnose and Repair Engine Support Systems
- Diagnose and Repair Diesel Supply Systems
- Describe Alternative Fuel Systems
- Diagnose Engines and Components
- Remove Engines and Components
- Describe Diesel Fuel Injection Fundamentals
- Diagnose and Repair Mechanical Fuel Injection Systems
- Diagnose and Repair Electronic Diesel Fuel Systems
- Diagnose and Repair Diesel Emissions Systems
- Diagnose and Repair Engine Brakes

Evaluation and Assessment:

HEAVY DUTY EQUIPMENT TECHNICIAN APPRENTICESHIP LEVEL 2

COTR COURSE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
HDAP 210	Electrical	40%	40%
HDAP 211	Engines and Supporting Systems	60%	60%
	Total	100%	100%
In-school theory/practical subject competency weighting		50%	50%
Final In-school percentage score		IN-SCHOOL%	
In-school Percentage Score			
Combined theory and practical subject competency multiplied by		80%	
Standard Level Exam Percentage Score			
The exam score is multiplied by		20%	
Final Percentage Score		FINAL%	

Pass Requirements:

1. Successful completion of the in-school training is defined as a final overall minimum of 70% to meet SkilledTradesBC standards.
 - Students must maintain an acceptable level of attendance, complete all assigned projects and pass all exams to successfully complete the program.

Students must provide their own:

- hi-vis coveralls
- digital multimeter
- safety glasses
- coveralls
- leather steel-toed boots
- pens, pencils, coloured pencils, paper
- calculator
- Reference Manuals

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
- Policy 2.5.8 Academic Performance
- Policy 2.5.3 Grade Appeal
- Policy 2.4.9 Student Concerns Re Faculty

Program Grade

COM	NCG
Completed to the defined standard – 70% or greater	No Credit Granted – less than 70%

Program Changes:

Information contained in program outlines is correct at the time of publication. Content of the program is revised on an ongoing basis to ensure relevance to changing educational, employment, and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add material to programs.

Industry Training:

The program competencies and technical training content delivered in this program follow the SkilledTradesBC Program Outline for this trade.

Safety Catalog:

WorkSafeBC regulations apply to all trades programs. Students are expected to follow all safe work practices and have high regard for the safety of others as well as of themselves. Students are responsible to wear personal protective equipment (PPE) as directed. At a minimum, students must provide and wear approved safety footwear and eyewear at all times in the shop. Additional PPE may be required for specific tasks. Students are expected to wear clothing suitable for working safely in the shop.

Course Descriptions: Refer to Course Outlines – <https://outlines.cotr.bc.ca/course/>