

## **HEAVY DUTY EQUIPMENT TECHNICIAN**

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### **Occupation Description**

“Heavy Duty Equipment Technician” means a person who maintains, manufactures, overhauls, reconditions and repairs equipment powered by internal combustion engines or electricity and without limiting the foregoing, including graders, loaders, shovels, off-highway tractors, off-highway trucks, forklifts, wheeled and tracked vehicles of all types used in construction, logging, sawmill, manufacturing, mining and other similar industry.

For detailed information on the scope of knowledge and skills taught and assessed in this program refer to the Program Outline, available on the ITA website.

### **Pathways to Certification**

In BC, an individual can become certified as a Heavy Duty Equipment Technician by completing the Heavy Duty Equipment Technician program or by challenging the certification. Apprenticeship programs are for individuals who have an employer to sponsor them and challenge programs are for individuals who have extensive experience working in the occupation and wish to challenge the certification.

Youth can begin an apprenticeship in high school through the Youth Train in Trades or Youth Work in Trades programs. The Youth Work in Trades program is available for any trade if an employer is willing to sponsor the student. Trades offered through the Youth Train in Trades vary by region; contact your local school district to find out which technical training programs are being offered through the Youth Train in Trades program in your region.

Foundation programs, where available, provide adults and youth who do not have work experience or employer sponsorship with an opportunity to gain the knowledge and skills needed to enter the occupation. Individuals who wish to enroll in a Foundation program must register directly with the training provider.

### **Recommended Education**

The following education is recommended for apprentices entering this occupation. These are not prerequisites, but rather a desired level of skill or knowledge that will contribute to success in the industry.

- Grade 10 or equivalent including English 10, Mathematics 10 and Science 10
- Preferred: Grade 12

### **ITA Registration**

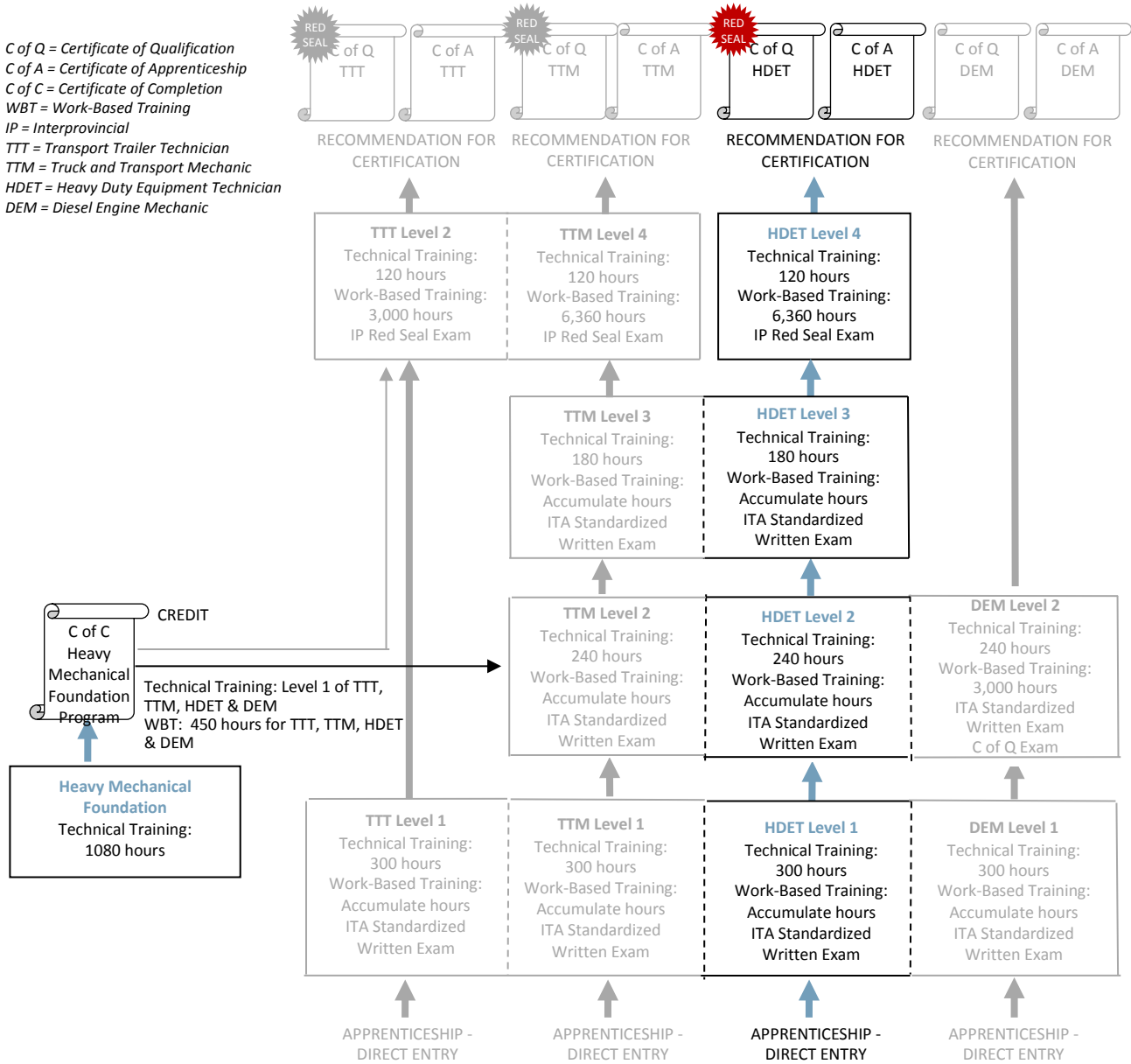
Individuals who wish to begin an apprenticeship in this program must register with ITA along with their sponsor. Application forms for all programs are available from the ITA website. Online registration is also available for most programs through the ITA website.

Those who wish to challenge the Heavy Duty Equipment Technician certification must complete the Heavy Duty Equipment Technician Challenge Application and submit it to ITA. Challenge applications are assessed for proof of workplace hours and scope of experience prior to acceptance of the individual into the Challenge pathway.

## Apprenticeship Pathway

This graphic provides an overview of the Heavy Duty Equipment Technician apprenticeship pathway.

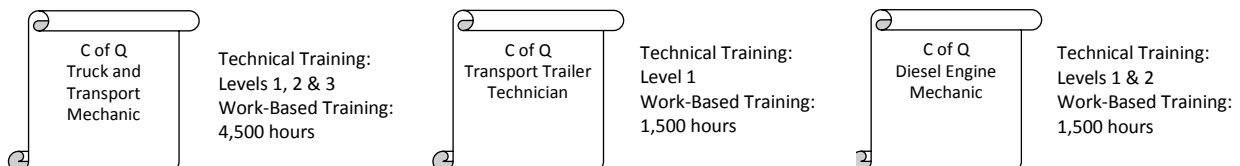
*C of Q = Certificate of Qualification*  
*C of A = Certificate of Apprenticeship*  
*C of C = Certificate of Completion*  
*WBT = Work-Based Training*  
*IP = Interprovincial*  
*TTT = Transport Trailer Technician*  
*TTM = Truck and Transport Mechanic*  
*HDET = Heavy Duty Equipment Technician*  
*DEM = Diesel Engine Mechanic*



= same technical training for multiple trades

### CROSS-PROGRAM CREDITS

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program



**Apprenticeship Program Standards**

<b>Credentials Awarded</b>	<ul style="list-style-type: none"> <li>▪ Heavy Duty Equipment Technician – Certificate of Qualification with Interprovincial Red Seal endorsement</li> <li>▪ Heavy Duty Equipment Technician – Certificate of Apprenticeship</li> </ul>										
<b>ITA Registration Prerequisites</b>	<ul style="list-style-type: none"> <li>▪ Agreement signed by the employer to sponsor the apprentice</li> </ul>										
<b>Completion Requirements</b>	<p>Certification as a Heavy Duty Equipment Technician is awarded upon successful completion of:</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Requirement</th> <th style="text-align: left;">Level of Achievement Required</th> </tr> </thead> <tbody> <tr> <td>Technical Training</td> <td>           Minimum 70% in each level of technical training:           <ul style="list-style-type: none"> <li>▪ Level 1: 300 hours and ITA Standardized Written Exam</li> <li>▪ Level 2: 240 hours and ITA Standardized Written Exam</li> <li>▪ Level 3: 180 hours and ITA Standardized Written Exam</li> <li>▪ Level 4: 120 hours</li> </ul> </td> </tr> <tr> <td>Interprovincial Red Seal Exam</td> <td> <ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul> </td> </tr> <tr> <td>Work-Based Training</td> <td> <ul style="list-style-type: none"> <li>▪ 6,360 hours</li> </ul> </td> </tr> <tr> <td>Recommendation for Certification</td> <td> <ul style="list-style-type: none"> <li>▪ Recommendation for certification signed by the Sponsor and an individual holding credentials eligible for sign-off authority</li> </ul> </td> </tr> </tbody> </table>	Requirement	Level of Achievement Required	Technical Training	Minimum 70% in each level of technical training: <ul style="list-style-type: none"> <li>▪ Level 1: 300 hours and ITA Standardized Written Exam</li> <li>▪ Level 2: 240 hours and ITA Standardized Written Exam</li> <li>▪ Level 3: 180 hours and ITA Standardized Written Exam</li> <li>▪ Level 4: 120 hours</li> </ul>	Interprovincial Red Seal Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>	Work-Based Training	<ul style="list-style-type: none"> <li>▪ 6,360 hours</li> </ul>	Recommendation for Certification	<ul style="list-style-type: none"> <li>▪ Recommendation for certification signed by the Sponsor and an individual holding credentials eligible for sign-off authority</li> </ul>
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Recommendation for Certification	<ul style="list-style-type: none"> <li>▪ Recommendation for certification signed by the Sponsor and an individual holding credentials eligible for sign-off authority</li> </ul>										
<b>Program Duration</b>	<p>Duration varies depending on how training is delivered, but the program generally takes 4 years to complete.</p> <p>The technical training requirement is typically met through block-release training (full-time, at school) delivered by an ITA-approved training provider. It can also be met through approved alternative training models (e.g., distance education, online, part-time) and/or level challenge where these options are available.</p>										
<b>Sign-off Authority</b>	<p>Credentials eligible to sign-off on the Recommendation for Certification:</p> <ul style="list-style-type: none"> <li>▪ Heavy Duty Equipment Technician – Certificate of Qualification</li> <li>▪ Heavy Duty Equipment Technician – Interprovincial Red Seal endorsement</li> <li>▪ ITA-issued letter authorizing supervision and sign-off of apprentices in this occupation</li> </ul>										
<b>Challenging a Level</b>	<p>The following levels of technical training can be challenged for advanced placement in this program</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Level</th> <th style="text-align: left;">Prerequisites</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>▪ Level 1</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>▪ N/A</li> </ul> </td> </tr> </tbody> </table>	Level	Prerequisites	<ul style="list-style-type: none"> <li>▪ Level 1</li> </ul>	<ul style="list-style-type: none"> <li>▪ N/A</li> </ul>						
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**Apprenticeship Program Standards**

**Cross-Program Credits**

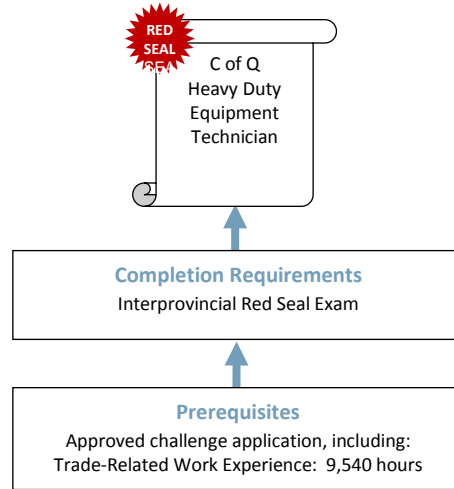
Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

Credential	Credit(s) Granted
Truck & Transport Mechanic – Certificate of Qualification	<ul style="list-style-type: none"> <li>▪ Technical Training: Levels 1, 2 &amp; 3</li> <li>▪ Work-Based Training: 4,500 hours</li> </ul>
Diesel Engine Mechanic Certificate – Certificate of Qualification	<ul style="list-style-type: none"> <li>▪ Technical Training: Levels 1 &amp; 2</li> <li>▪ Work-Based Training: 1,500 hours</li> </ul>
Transport Trailer Technician – Certificate of Qualification	<ul style="list-style-type: none"> <li>▪ Technical Training: Level 1</li> <li>▪ Work-Based Training: 1,500 hours</li> </ul>

## Challenge Pathway

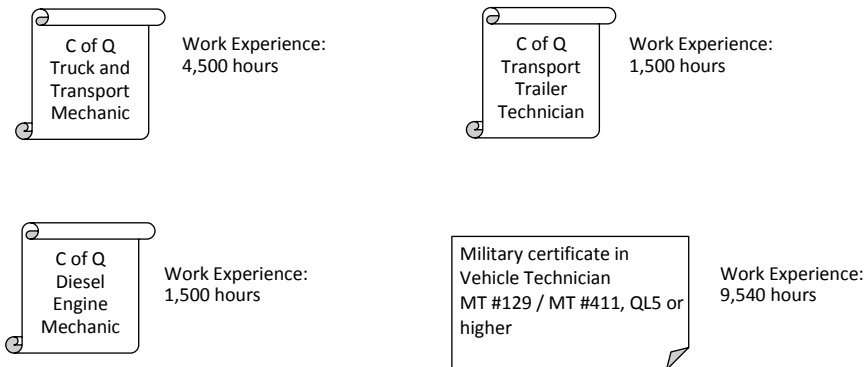
This graphic provides an overview of the Heavy Duty Equipment Technician challenge pathway.

*C of Q = Certificate of Qualification*



### CREDIT FOR PRIOR LEARNING

*Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program*





### Challenge Program Standards

**Credentials Awarded** Heavy Duty Equipment Technician – Certificate of Qualification with Interprovincial Red Seal endorsement

**ITA Registration Prerequisites** An approved Challenge Application, which includes:

- 9,540 documented hours of directly related experience working in the occupation

**Credit for Prior Learning** Individuals who hold the credentials listed below are considered to have met, or partially met, the prerequisites for challenging this program:

Credential	Credit(s) Granted
Truck and Transport Mechanic – Certificate of Qualification	▪ Work Experience: 4,500 hours
Transport Trailer Technician – Certificate of Qualification	▪ Work Experience: 1,500 hours
Diesel Engine Mechanic – Certificate of Qualification	▪ Work Experience: 1,500 hours
Military certificate in Vehicle Technician MT #129 / MT #411, QL5 or higher	▪ 9,540 workplace hours ▪ Approved Challenge Application

**Completion Requirements** Certification as a Heavy Duty Equipment Technician is awarded upon successful completion of:

Requirement	Level of Achievement Required
Interprovincial Red Seal Exam	▪ Minimum 70%



## Foundation Program

Refer to the Apprenticeship pathway diagram for this program to see how the Heavy Mechanical Foundation program leads to apprenticeship in this trade.

### Foundation Program Standards

<b>Credentials Awarded</b>	Heavy Mechanical – Certificate of Completion				
<b>Enrollment Prerequisites</b>	Contact training provider. Prerequisites vary between training institutions				
<b>Completion Requirements</b>	A Certificate of Completion in this program is awarded upon successful completion of: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="width: 50%;">Requirement</th> <th style="width: 50%;">Level of Achievement Required</th> </tr> </thead> <tbody> <tr> <td>Technical Training</td> <td> <ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul> </td> </tr> </tbody> </table>	Requirement	Level of Achievement Required	Technical Training	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>
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Technical Training	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>				
<b>Program Duration</b>	Duration varies depending on how training is delivered, but program generally takes 36 weeks to complete, assuming 30 hours in school per week.				
<b>Credit toward Apprenticeship</b>	Individuals who complete the Heavy Mechanical Foundation program will receive the following credit toward completion of the Heavy Duty Equipment Technician apprenticeship program: <ul style="list-style-type: none"> <li>▪ Technical Training: Level 1</li> <li>▪ Work-Based Training: 450 hours</li> </ul>				

## Supporting Documents

Heavy Duty Equipment Technician Program Outline (2013) – Defines the full scope of knowledge and skills required to competently perform the occupation in BC. Available from the ITA website.

Heavy Duty Equipment Technician National Occupational Analysis (2009) – Prepared by industry experts, under the guidance of the federal government, for Red Seal trades to define the national standard of competence for the trade. Available from the Red Seal website: [www.red-seal.ca](http://www.red-seal.ca).

## Contacts

The **Industry Training Authority** (ITA) manages B.C.'s industry training and apprenticeship programs. Contact ITA Customer service if you have any questions regarding registration, examinations or certification for this program.

Telephone: 778-328-8700  
Toll Free (within BC): 1-866-660-6011  
Website: [www.itabc.ca](http://www.itabc.ca)

Fax: 778-328-8701  
Email: [customerservice@itabc.ca](mailto:customerservice@itabc.ca)

## Revision History

The standards for this program were reviewed and/or updated on the dates below.

Program Standards Approved: March 2002  
Updated: January 2006  
Updated: March 2009  
Updated: November 2012  
Updated: August 2013  
Updated: December 2015  
Updated: June 2017  
Updated: August 2017

Program Profiles are updated regularly. Visit [www.itabc.ca](http://www.itabc.ca) for the most current version.