



vcc.ca

Course Name:

Powertrain 1

Effective Date:

May 2019

School/Centre:

Trades, Technology & Design

Department:

Heavy Mechanical Technology Diploma International(4305)

Banner Course Name:

Powertrain 1

Subject Code:

HMTD - Heavy Mechanical Technician

Course Number

2112

Year of Study

2nd Year Post-secondary

Credits:

1

Course Description:

Engine Support Systems 1: Cooling and Lubrication. This course introduces students to the theory of diesel engine operation, cooling and lubrication systems maintenance, and engine removal preparation.

Course Pre-Requisites (if applicable):

Admission to the Heavy Mechanical Technology program.

Course Co-requisites (if applicable):

PLAR (Prior Learning Assessment & Recognition)

No

Course Learning Outcomes (CLO):

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

CLO #1 Describe operation of two and four stroke engines.

CLO #2 Describe engine cooling and lubrication systems.

CLO #3 Service engine cooling and lubrication systems.

CLO #4 Identify and employ procedures to prepare a diesel engine for removal.

Instructional Strategies:

Instructional strategies include classroom lectures, demonstrations, group discussions, computer lab and hands-on practical work.

Evaluation and Grading

Grading System:

Percentages

Passing grade:

70%

Evaluation Plan:

Type Percentage	Brief description of assessment activity
Other 50	Theory- includes formative assessments, assignments, and a summative assessment.
Other 50	Practical- includes shop tasks, active participation and teamwork, workplace behavior, use of tools and equipment.

Hours by Learning Environment Type

Lecture, Seminar, Online

12.5

Lab, Clinical, Shop, Kitchen, Studio, Simulation

12.5

Practicum

Self Paced / Individual Learning

Course Topics

Course Topics:
1. Two and four stroke engines.
2. Engine cooling and lubrication systems.
3. Servicing engine cooling and lubrication systems.
4. Procedures to prepare a diesel engine for removal.

Program and course contents and descriptions, offerings and schedules are subject to change without notice.

Resource Material(s):

Resources are items in addition to tuition that the student is responsible for purchasing. Course resource information will be supplied by the department/instructor.

VCC Education and Education Support Policies

There are a number of **Education** and **Education Support** policies that govern your educational experience at VCC, please familiarize yourself with them.

The policies are located on the VCC web site at <https://www.vcc.ca/about/governance--policies/policies>.

To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

Broadway campus

1155 East Broadway, Vancouver, B.C., Canada V5T 4V5 ■ Tel 604.871.7000

Downtown campus

250 West Pender Street, Vancouver, B.C., Canada V6B 1S9 ■ Tel 604.443.8300