

# HEAVY EQUIPMENT TECHNICIAN (HDTN)

## Ontario College Diploma | 4 semesters | Barrydowne

After learning the basic fundamentals of trades practices, diesel engines, fuel systems, power trains, electrical systems, hydraulic systems, steering and brake systems in first year, you will be introduced to diesel engine construction and classification, power trains, traction controls and wheel final drives, electrical and electronics, and air conditioning. Courses will also include an emphasis on shop safety, basic hand and power tools, fasteners, measuring instruments, starting aid, and starting methods used in the trade.

### Program Highlights

- 2 years – 4 semesters
- Co-op Diploma Apprenticeship option
- Work on off-road heavy equipment such as loaders, bulldozers, trucks, and various components like engines, transmissions, brake systems, fuel systems, hydraulic systems found in our heavy equipment shop
- Develop the ability to work service and maintain the various electronic control systems and components found on heavy equipment

### 4D Learning Opportunities

Ontario Technological Skills Competition – Each year, select Cambrian Heavy Equipment students compete in this provincial competition against other college students and apprentices.

### Co-op Diploma Apprenticeship Program Option

The Co-op Diploma Apprenticeship program combines a college diploma and apprenticeship training. The placement for this program is an optional co-op and is not required for you to graduate. You can choose to complete your postsecondary program and graduate with a certificate or diploma without participating in the co-op option. However, if you choose, and qualify, to participate in this optional Co-op Diploma Apprenticeship program, you may become a registered apprentice sponsored by your co-op employer. Through your participation in this program, you will have the opportunity to participate in paid co-op placements while earning a college certificate or diploma. Your academic curriculum, which enables you to receive Level 1, Level 2, or Level 3 Trade School completion from the Ministry of Advanced Education and Skills Development after each successful year of schooling, will be enhanced by the experiences from your co-op placements.

#### Capped Enrolment

#### Quick Links

How to Apply (<http://cambriancollege.ca/apply>)

Skills and Trades Training (<http://cambriancollege.ca/field-of-study/skills-and-trades-training>)

### Admission Requirements

For graduates of the new curriculum (OSS): Ontario Secondary School Diploma (30 credits) or equivalent or mature student status, including:

- Any grade 12 English (C), (U), or (M)
- Any grade 11 mathematics (C), (U), or (M)

**APPLY NOW!** (<http://ontariocolleges.ca/apply>)

### Program Delivery

2019-2020

This program will be delivered in the following terms:

#### Fall Term Start

1. **SEMESTER 1** Fall 2019
2. **SEMESTER 2** Winter 2020
3. **SEMESTER 3** Fall 2020
4. **SEMESTER 4** Winter 2021

For specific term start/end dates and other key dates/deadlines, please see the Academic Schedule (<http://cambriancollege.ca/apply/how-to-apply/academic-schedule>) on our website.

### Program of Study

Students are required to successfully complete an online Lab Safety course (in Moodle) when starting their program at Cambrian. This course must be completed prior to entering the labs (as identified in the table below) in the Schools of Skills Training, Engineering Technology and Environmental Studies.

Semester 1		Credits
ELC 1120	Electrical & Electronics I <sup>1</sup>	4
HDM 1140	Diesel Engines I <sup>1</sup>	2
HDM 1150	Diesel Engines II <sup>1</sup>	3
HDM 1161	Trade Practices & Applications I <sup>1</sup>	5
TCA 1100	Trade Math I <sup>1</sup>	2
WLD 1105	Welding and Oxyacetylene <sup>1</sup>	2
ENG 1002	College Communications	3
Credits		21

Semester 2		
HDM 1221	Hydraulics <sup>1</sup>	4
HDM 1230	Fuels Systems <sup>1</sup>	4
PWT 1100	Power Train I <sup>1</sup>	3
PWT 1200	Power Train Systems II <sup>1</sup>	3
SSB 1100	Suspen/Steer/Brake Sys I Pneumatics <sup>1</sup>	4
The following General Education course:		3
BUS 1008	Personal Finance	
Credits		21

Semester 3		
ELC 2300	Electrical & Electronics II <sup>1</sup>	4
ENG 1780	Applied Communication II	2
HDM 2320	Diesel Engines III <sup>1</sup>	2
HDM 2341	Heavy Duty Brakes <sup>1</sup>	6
HDM 2401	Diesel Engines Systems IV <sup>1</sup>	3
HYS 2300	Hydraulic Systems I <sup>1</sup>	3
One of the following General Education courses:		3
BUS 1015	Negotiation & Labour Relations	
CET 1003	Cybernation	
MUS 1009	Rock Music, Culture & Technology	
PSY 1001	Psychology of Evil	

SCI 1000	Issues and Ethics in Science	
	Credits	23
<b>Semester 4</b>		
DFS 2300	Diesel Fuel Injection Systems I <sup>1</sup>	2
DFS 2400	Diesel Fuel Injection Systems II <sup>1</sup>	3
ELC 2400	Electrical & Electronics III <sup>1</sup>	5
HYS 2400	Hydraulic Systems II <sup>1</sup>	3
PWT 2300	Power Trains Systems III <sup>1</sup>	3
PWT 2400	Power Trains Systems IV <sup>1</sup>	4
One of the following General Education courses:		3
BUS 1015	Negotiation & Labour Relations	
CET 1003	Cybernation	
MUS 1009	Rock Music, Culture & Technology	
PSY 1001	Psychology of Evil	
SCI 1000	Issues and Ethics in Science	
	Credits	23
	Total Credits	88

<sup>1</sup> Course with Lab Component

## Fees

### Tuition and Ancillary Fees

Please see our fees page (<http://cambriancollege.ca/fees>) for the breakdown of tuition and mandatory ancillary fees by program and semester for both domestic and international students

### Books & Supplies

The cost of books and supplies for Year 1 is approximately \$1500. This is the best information available at the time of publishing to the website and is subject to change.

## Graduate Options

### Employment Opportunities

Graduates may find employment as apprentices in the forestry, mining, and construction industries as well as heavy equipment manufacturing or in truck shops.

### College/University Degree Opportunities

Graduates from this program may continue their studies at college/university and may receive credit for their prior College education.

Refer to College/University Agreements (<http://www.cambriancollege.ca/agreements>) for further information.

## Contacts

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Program Coordinator

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