

# CIVIL ENGINEERING TECHNOLOGY (CVTY)

## Ontario College Advanced Diploma | 6 semesters | Barrydowne

If you have a vision for how the world should be constructed, below and above ground, consider a career in Civil Engineering – one of the world’s oldest engineering disciplines! In our nationally-accredited Civil Engineering Technology program, you’ll gain the skills and knowledge to become a member of civil engineering teams that are responsible for building, maintaining, and restoring roads, bridges, buildings, water distribution systems, and pipelines. Courses are focused on applying professionalism towards drafting, surveying, construction methods, costing, quality control, inspections, and laboratory testing.

You will gain practical, hands-on experience in the College’s Geographic Information Systems (GIS) and Computer-Aided Drafting (CAD) laboratories and through surveying training using Light Detection and Ranging (LiDAR) scanning equipment, point cloud management software, and electronic survey equipment that’s interfaced with survey and drafting software. In addition, to meet the demand for structural steel detailers, you will learn automated structural detailing.

Qualified students may have the opportunity to gain summer work experiences in the construction, consulting, and government sectors through the Infrastructure Opportunities Program (IOP) and the Municipal Engineering Opportunities Program (MEOP).

### Accreditation

This program is nationally accredited, which enables graduates to work as technologists across Canada. A civil engineering technologist may seek membership with OACETT (Ontario Association of Certified Engineering Technicians and Technologists) to become certified as a C.E.T. (Certified Engineering Technologist). A technologist can also pursue a Bachelor of Applied Science in Civil Engineering at Canadian universities.

### Program Highlights

- 3 years – 6 semesters
- National accreditation since 2003. Current accreditation through Technology Accreditation Canada
- Two-week surveying course at the end of the second semester
- Industry-experienced faculty
- Hands-on experience in a modernized lab
- Opportunity to gain summer employment through the Infrastructure Opportunities Partnership (IOP) and Municipal Engineering Opportunities Partnership (MEOP)
- Field trips to local civil engineering companies and completed project sites
- Courses cover design, project management, technical research and report writing, and more
- Hands-on experience with Geographic Information Systems (GIS) and computer-aided drafting (CAD)
- Grads may be eligible to become members of the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) and the Canadian Technical Employment Network (CTEN)

### 4D Learning Opportunities

CANstruction competition – Students compete against other organizations in the community to design and build a 3D structure out of food cans, which are then donated to the Sudbury Food Bank.

### Quick Links

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

Engineering Technology (<http://cambriancollege.ca/field-of-study/engineering-technology>)

### 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 12 mathematics (C) or (U) (MCT4C is highly recommended)

Recommended:

- Any grade 12 physics (C) or (U)
- Computer competency in relevant software

### Advanced Standing

Graduates of Cambrian’s Civil Engineering Technician Program (CVTN) or its equivalent may apply to enter directly into Semester 5 of the Civil Engineering Technology (CVTY) program. This is a competitive process.

**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
5. **SEMESTER 5** Fall 2021
6. **SEMESTER 6** Winter 2022

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
CIV 1200	Concrete & Asphalt <sup>1</sup>	4
CIV 2331	Construction Technology	4
ENG 1002	College Communications	3
MTH 1050	Algebra I	3
SUR 1116	Surveying I <sup>1</sup>	5
The following General Education course:		3

BUS 1015	Negotiation & Labour Relations	
	Credits	22
<b>Semester 2</b>		
CAD 1001	Engineering Graphics	3
ENG 1754	Technical Communication	3
MCH 1205	Mechanics	5
MTH 1250	Algebra II	3
SUR 1220	Surveying II <sup>1</sup>	5
SUR 1232	Survey Field Methods <sup>1</sup>	1
One of the following General Education courses:		3
BUS 1008	Personal Finance	
SSC 1000	Media and Current Events	
SOC 1007	Introduction to Indigenous Studies	
	Credits	23
<b>Semester 3</b>		
CAD 1200	Computer Aided Drafting II	2
CIV 2300	Soil Mechanics I <sup>1</sup>	4
CIV 2302	Civil Engineering Applications	3
CIV 2421	Basic Hydraulics	3
MCH 2310	Strength Of Materials I	4
MTH 2325	Technical Math III	3
ENV 1027	Sustainable Practices	3
	Credits	22
<b>Semester 4</b>		
CIV 2405	Structural Behaviour & Detailing	5
CIV 2408	Computer Aided Structural Detailing	2
CIV 2431	Municipal Planning	4
CIV 3500	Special Projects <sup>1</sup>	4
CIV 3520	Contracts Law & Specifications	4
One of the following General Education courses:		3
ECN 1002	Economics	
FIT 1115	Health & Wellness	
SCI 1000	Issues and Ethics in Science	
	Credits	22
<b>Semester 5</b>		
CIV 2410	Soil Mechanics II	4
CIV 2430	Municipal Services	4
CIV 3510	Structural Design	4
CIV 3550	Construction Project Mgt. I	3
MCH 2410	Strength Of Materials II	4
TEC 3501	Technical Report Research	1
WRM 2300	Water Resources Management	2
	Credits	22
<b>Semester 6</b>		
CIV 3600	Foundations	5
CIV 3630	Reinforced Concrete	4
CIV 3640	Highway Design	4
GIS 3600	GIS Applications	3
MTH 2332	Applied Calculus	3

TEC 3601	Technical Report	1
	Credits	20
	Total Credits	131

<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 \$700. 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 opportunities with:

- Consulting engineering firms
- Municipal engineering offices
- Construction firms
- Manufacturing organizations
- Provincial and Federal Government agencies
- Inspection and testing companies

For more information about Civil Engineering as a career, including employment opportunities, and more, visit Ontario Civil Construction Careers Alliance (<http://www.myocca.ca>).

### 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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