

CIVIL ENGINEERING TECHNOLOGY (CVTY)

Create your vision of how the world should be constructed

Our nationally-accredited program prepares you to become a working member of civil engineering teams across Canada that are responsible for building, maintaining, and restoring roads, bridges, buildings, water distribution systems, and pipelines. Make your vision a reality with courses focused on applying professionalism towards design, drafting, supervision of projects, interpretation of data, cost estimating, scheduling, asset management, project management, feasibility studies, surveying, and technical report writing.

You'll gain hands-on experience in Cambrian's Geographic Information Systems (GIS) and Computer-Aided Drafting (CAD) laboratories. You'll use cutting-edge technology to learn surveying and drafting. Upon graduation, you qualify to work anywhere in Canada.

Program highlights

- Nationally-accredited program through Technology Accreditation Canada (TAC)
- Learn from industry-experienced faculty in modern labs
- Common first and second year with Cambrian's Civil Engineering Technician program
- Field trips to local civil engineering companies and completed work sites
- Hands-on experience in Geographic Information Systems (GIS) and Computer-Aided Drafting (CAD)
- Opportunity to gain summer employment through the Infrastructure Opportunities Partnership (IOP) and Municipal Engineering Opportunities Partnership (MEOP)
- Grads may be eligible to join the Ontario Association of Certified Engineering Technicians & Technologists (OACETT) and the Canadian Technical Employment Network (CTEN)

Program of study for 2024-25 Academic Year

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 ¹	4
CIV 2331	Construction Technology	4
ENG 1002	College Communications	3
MTH 1050	Algebra I	3
SUR 1116	Surveying I ¹	5
One General Education course. ²		3
Credits		22
Semester 2		
CAD 1001	Engineering Graphics	3
ENG 1754	Technical Communication	3
MCH 1205	Mechanics	5
MTH 1250	Algebra II	3

SUR 1220	Surveying II ¹	5
SUR 1232	Survey Field Methods	1
One General Education course. ²		3
Credits		23
Semester 3		
CAD 1200	Computer Aided Drafting II	2
CIV 2300	Soil Mechanics I ¹	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
Semester 4		
CIV 2431	Municipal Planning	4
CIV 2403	Structural Behaviour & Detailing	4
CIV 2404	Computer Aided Structural Detailing	3
CIV 3500	Special Projects ¹	4
CIV 3520	Contracts Law & Specifications	4
One General Education course. ²		3
Credits		22
Semester 5		
CIV 2410	Soil Mechanics II	4
CIV 2430	Municipal Services	4
CIV 3510	Structural Design	4
MCH 2410	Strength Of Materials II	4
CIV 3560	Construction Project Management	3
TEC 3501	Technical Report Research	1
CIV 3511	Infrastructure Asset Management	3
Credits		23
Semester 6		
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		132

¹ Course with Lab Component

² For more information regarding General Education courses, click here (<https://cambriancollege.ca/general-electives/>).

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) or (U)
- Any grade 12 mathematics (C) or (U) (MCT4C is highly recommended)

Additional admission requirements

Recommendations

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

Program delivery

2024-2025

Fall term start

SEMESTER 1: Fall 2024

SEMESTER 2: Winter 2025

SEMESTER 3: Fall 2025

SEMESTER 4: Winter 2026

SEMESTER 5: Fall 2026

SEMESTER 6: Winter 2027

Specific program pathways

College or university degree opportunities

If you are a graduate of this program, you may continue your studies at a college or university and you may receive credit(s) for your prior college education. Refer to Cambrian's college and university agreement (<https://cambriancollege.ca/supports-services/articulation-agreements/>) details for further information.

Employment opportunities

Graduates are prepared for 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/>).

Contacts

Jeff Walker

Program Coordinator

705-566-8101, ext 7430

jeff.walker@cambriancollege.ca

INTERNATIONAL ADMISSIONS

mailboxadmissions@cambriancollege.ca