

Construction Engineering Technology (Management)

A Three-Year Ontario College Advanced
Co-operative Education Endorsed Diploma

1001 Fanshawe College Blvd. – Room D1063
London, ON N5Y 5R6
Phone: 519-452-4294 Fax: 519-452-4572
coop@fanshawec.ca



The Program

Construction Engineering Technology (Management) graduates have the technical knowledge and skills required to I.C.I. buildings from planning through to completion.

The Content

Studies include construction methods, construction equipment, surveying, project management, scheduling, estimating, building economics and construction contracts. A minimum of three work terms must be completed for a Co-operative Education Endorsed Diploma.

The Outcomes

Graduates often start their own construction companies or join the family business. Others work for developers, estimators, expeditors, field engineers, general contractors, subcontractors, materials supplier and various government departments. They are employed as superintendents, field coordinators, schedulers or contract managers.

Sample Co-op Progression Charts:

September Intake Only			
	Fall	Winter	Summer
Year 1	Academic Term 1	Academic Term 2	Work Term 1
Year 2	Academic Term 3	Academic Term 4	Work Term 2
Year 3	Work Term 3	Academic Term 5	Academic Term 6

Skill Levels

Year One

- Prepare minor reports and deficiency lists for residential multi-family housing
- Prepare estimates for small-to-medium sized construction projects
- Set up and use survey equipment turning angles and working out minor calculations
- Handle concrete/asphalt testing equipment to meet Ministry standards
- Layout framing units for residential/multi-family units

Year Two

- Survey, layout and inspection
- Construction layout and inspection
- Preparation of daily/weekly progress reports
- Site meetings
- Handling a major role in quantities/estimating projects
- Planning and scheduling
- Field coordinator

Year Three

- Plan, organize and run job site meetings
- Supervise junior personnel
- Co-ordinate field work
- Handle simple to complex quantities and estimating projects
- Establish their own small contracting business

Course Outline

For the official Degree Audit, please see Registrar's Office

Level 1 – Take all of the following Mandatory Courses

COMP-1327	Computer Applications
CONS-1004	Construction Technology
MATH-1036	Mathematics in Technology I
MATS-1001	Construction Materials
CONS-1009	Quantity Surveying
MATH-1062	Statics
SURV-1001	Construction Surveying
SFTY-1029	Health & Safety
COOP-1020	Co-op Ed Employment Prep

Level 2 – Take all of the following Mandatory Courses

WRIT-1039	Reason & Writing I - Technology
CONS-1006	Construction Technology
ENGR-1002	Environmental Engineering - Plumbing
CADD-1012	Introduction to AutoCAD
MATS-3002	Construction Materials
MATS-1006	Mechanics of Materials
CONS-1010	Quantity Surveying & Estimating
SURV-3001	Construction Surveying
ENVR-1017	Sustainability in the Built Environment

Level 3 – Take all of the following Mandatory Courses

Gen Ed – Take a 3 credit Gen. Ed. elective course	
CONS-3005	Construction Technology
ENGR-1003	Environmental Engineering – Electrical I
ENGR-1005	Environmental Engineering (HVAC)
CONS-3012	Quantity Surveying & Estimating
CONS-3013	Heavy Construction Quantity Surveying
ENGR-3006	Structural Design
LAWS-1030	Contracts in Society

Level 4 – Take all of the following Mandatory Courses

Gen Ed – Take a 3 credit Gen. Ed. elective course	
CONS-3003	Construction Technology
LAWS-3001	Construction Contracts & Specs
ECON-1007	Building Economics
MECH-3030	Environmental Eng - Mechanical
CONS-3015	Quantity Surveying & Estimating
ENGR-3008	Structural Design

Level 5 – Take all of the following Mandatory Courses

CONS-3010	Building Science
ECON-5001	Building Economics
ENGR-3004	Environmental Engineering - Electrical II
MGMT-3018	Construction Management
CONS-5004	Quantity Surveying and Estimating
COMP-1407	Computer Estimating - Intro
ENGR-5006	Structural Design
COMM-5005	Technical Report Prod for Bldg Tech'y

Level 6 – Take all of the following Mandatory Courses

MATH-5002	Mathematics
MGMT-5009	Construction Management
CONS-5005	Mechanical Estimating - Plumbing
CONS-5006	Mechanical Estimating (HVAC)
CONS-5007	Quantity Surveying and Estimating
COMP-5053	Computer Estimating - Adv
ENGR-5008	Structural Design
SURV-5003	Construction Surveying

Requirements:

- Take two 3-credit General Education Elective Courses
- Program Residency

Students must complete a minimum of 35 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program.

Why Should You Hire a Co-operative Education Student?

Many employers feel today's graduates have no concept of the "real" world of work; we are providing this experience in Co-operative Education. Any job that gives the student related background in your business would be suitable.

Eligible employers can claim a tax credit for each qualifying work placement for up to \$3000.

Co-operative Education students are ultimately looking ahead to careers in businesses such as yours. For this reason they are not expecting to simply put in time on the job, but are eager to get involved and make a worthwhile contribution. Participation in co-operative education also gives the employer the opportunity to try out a student's capabilities without obligation or commitment to permanent employment.

This work oriented educational system integrates classroom study and paid, on-the-job work experience, by alternating periods in College with periods of employment by co-operating organizations. The work terms are spaced out through the academic program and students will be at various academic levels in successive work terms. The working experience will ideally increase in difficulty and responsibility as the student progresses academically. However, the College realizes it is often difficult in practice to do this.

It is essential that the work experience be a normal one; that the student be treated like a regular company employee so that a realistic picture of the working environment in that field may be obtained. Perhaps most important is what students gain from the working experience, i.e. an attitude for success and the ability to get along with co-workers at all levels.

