Co-operative Education
Information for Employers

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, expediter, field engineers, general contractors, subcontractors, materials supplier and various government departments. They are employed as superintendents, field coordinators, schedulers or contract managers.

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

Sample Co-op Progression Charts:

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<th>Fall</th>
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<td><strong>Year 1</strong></td>
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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.

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