CONSTRUCTION ENGINEERING TECHNICIAN PROGRAM (T161)

PROGRAM NAME: Construction Engineering Technician

COURSE CODE: T161

SCHOOL: Angelo DelZotto School of Construction Management

CENTRE: Construction Engineering Technology

LOCATION: Casa Loma Campus

DURATION: 2 years (4 semesters)

EXPERIENTIAL LEARNING: Experiential Learning

STARTING MONTH: September, January

CREDENTIAL: Ontario College Diploma

YEAR OF STUDY: 2019-2020

METHOD OF STUDY: FT

APPLY TO: Ontario Colleges

TUITION: $4,280.00 *

ADDITIONAL COST:

* Amounts listed are the total of tuition, materials, student service and ancillary fees for the first two semesters of programs starting in Fall 2018. Fees are subject to change for programs starting in Fall 2019 and at later dates.

International students: Visit the International Fees and Related Costs page for more information.

PART TIME STUDY OPTIONS

Part-time study options are not available for this program; however, our Continuing Education department offers evening courses and part-time certificate programs in Building/Construction Technologies. See coned.georgebrown.ca

EXPERIENTIAL LEARNING

Experiential Learning

YOUR FIELD STUDY OPTIONS

Purpose and Definition of Field Experience

Field experience combines classroom learning with hands-on work experience structured to meet specific curricular outcomes. This approach to education relies upon a three-way partnership: the student, the institution and industry. Success depends upon the co-operative efforts of each party. It forms the basis for students’ experiential learning which is achieved when the cycle of experience, reflection, and learning is completed. It is a mandatory component of the T161 Construction Engineering Technician program. Field experience positions can be paid or unpaid. Both fulfill the academic requirement as well as strengthen students’ resumes, positioning them more effectively for future employment.

The field experience requires students to accumulate 100 hours of construction industry-related experience over the course of their third and fourth semesters. The field experience is facilitated through the Angelo DelZotto (ADZ) School of Construction Management, via collaborative efforts from the academic supervisors, program coordinators and the chair.

The Construction Engineering Technician program studies the characteristics of various building types with an appreciation for the latest energy and environmental technologies. The program also focuses on areas that include:

- Interpretation of construction documents
- On-site building engineering and safety
- Quantity surveying (estimating labour, materials and equipment required for a project)
- Building codes and construction contracts
- Site management practices

Laboratory courses provide practical building layout surveys and quality control testing of various building materials. You will also gain extensive computer experience, working with general business and Building Information Modeling (BIM) software and specialized construction management and estimating software.

*If you enrol in the program in January, you are required to complete semester 2 in the summer (May to August) of the same year in order to continue into semester 3 in the fall.
THE INDUSTRY

According to the 2015 Build Force Canada report 420,000 workers in the 34 core construction and trades occupations will be needed to replace existing workers and meet new labour market demand between now and 2024.

PROGRAM STANDARDS AND LEARNING OUTCOMES

The graduate has reliably demonstrated the ability to:

1. Develop and use strategies to enhance professional growth and ongoing learning in the construction engineering field.
2. Comply with workplace health and safety practices and procedures in accordance with current legislation and regulations.
3. Complete duties in compliance with contractual obligations, applicable laws, standards, bylaws, codes and ethical practices in the construction engineering field.
4. Carry out sustainability practices in accordance with contract documents, industry standards and environmental legislative requirements.
5. Collaborate with and facilitate communication among project stakeholders to support construction projects.
6. Collect, process and interpret technical data to produce written and graphical project-related documents.
7. Contribute to the collecting, interpreting and applying of survey/geomatics and layout information to implement construction projects.
8. Identify and use industry-specific electronic and digital technologies to support the design and construction of projects.
9. Contribute to the resolution of technical problems related to the design and implementation of construction projects by applying engineering concepts, basic technical mathematics and building science.
10. Assist in the scheduling and monitoring of the progression of construction projects by applying principles of construction project management.
11. Assist in the preparation of accurate estimates of time, cost, quality and quantity, tenders and bids.
12. Perform quality control testing and monitoring of equipment, materials and methods involved in the implementation and completion of construction projects.
13. Apply teamwork, leadership and interpersonal skills when working individually or within multidisciplinary teams to complete work on construction projects.

REQUIRED COURSES

**SEMESTER 1**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course name</th>
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<tbody>
<tr>
<td>BLDG1025</td>
<td>Construction Field Practices</td>
</tr>
<tr>
<td>BLDG1026</td>
<td>Introduction to Residential Construction</td>
</tr>
<tr>
<td>BLDG1074</td>
<td>Fundamentals of Building Architecture</td>
</tr>
<tr>
<td>GSCI1022</td>
<td>Building Science and the Environment</td>
</tr>
<tr>
<td>COMM1007</td>
<td>College English**</td>
</tr>
<tr>
<td>MATH1136</td>
<td>Mathematics for Building Technologies 1</td>
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</tbody>
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**SEMESTER 2**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course name</th>
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<tbody>
<tr>
<td>BLDG1042</td>
<td>Construction Materials and Methods</td>
</tr>
<tr>
<td>BLDG1043</td>
<td>Quantity Surveying</td>
</tr>
<tr>
<td>BLDG1073</td>
<td>Construction Materials Testing</td>
</tr>
<tr>
<td>BLDG1076</td>
<td>Building Code 1</td>
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<tr>
<td>BLDG1077</td>
<td>Construction Health and Safety</td>
</tr>
<tr>
<td>BLDG1078</td>
<td>Introduction to 3D Modeling</td>
</tr>
<tr>
<td>GHUM1106</td>
<td>History of Architecture</td>
</tr>
<tr>
<td>MATH1146</td>
<td>Mathematics for Building Technologies 2</td>
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</tbody>
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**SEMESTER 3**

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BLDG1084</td>
<td>Timber Construction Technology</td>
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<tr>
<td>BLDG1165</td>
<td>Introduction to Building Science</td>
</tr>
<tr>
<td>BLDG1201</td>
<td>Work Preparation</td>
</tr>
<tr>
<td>BLDG1202</td>
<td>Field Experience 1</td>
</tr>
<tr>
<td>BLDG2076</td>
<td>Building Code 2</td>
</tr>
<tr>
<td>BLDG2019</td>
<td>Estimating – Small Buildings</td>
</tr>
<tr>
<td>BLDG2045</td>
<td>Construction Site Management, Supervision and Inspection</td>
</tr>
<tr>
<td>COMM1113</td>
<td>Professional Communications for Building Technologies</td>
</tr>
<tr>
<td>GNED</td>
<td>General Education Elective</td>
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</tbody>
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**SEMESTER 4**

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<tr>
<th>Code</th>
<th>Course name</th>
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<tbody>
<tr>
<td>BLDG2021</td>
<td>Construction Planning and Scheduling</td>
</tr>
<tr>
<td>BLDG2046</td>
<td>Mechanical &amp; Electrical Installations</td>
</tr>
<tr>
<td>BLDG2090</td>
<td>Principles of Construction Law</td>
</tr>
<tr>
<td>BLDG2091</td>
<td>Steel Construction Technology</td>
</tr>
<tr>
<td>BLDG2130</td>
<td>Field Experience 2</td>
</tr>
<tr>
<td>BLDG3004</td>
<td>Pricing Construction Works</td>
</tr>
<tr>
<td>GNED</td>
<td>General Education Elective</td>
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**Based on the results of your placement test, you may be required to take COMM1003 (English Skills) or CESL1003 (English Skills – ESL) before progressing to COMM1007. COMM1003/CESL1003 does not count as a course required for graduation, and you will be charged for this extra course. Please visit http://assessment.georgebrown.ca for more information.**

General Education Electives

YOUR CAREER

Graduates find employment in a variety of jobs leading to supervisory positions in the construction industry. Opportunities may be found with:

- Home builders
- General contracting firms
- Subcontractors
- Consulting firms
- Sales roles with manufacturing and supply companies (related to the building industry)
- Government agencies
FUTURE STUDY OPTIONS

Students in this program are eligible to transfer with advanced standing into semester 5 of the Construction Engineering Technology advanced diploma program (T105).3.

TRANSFER OPTIONS

If you are transferring from another Ontario college Construction Engineering program, you may be eligible for advanced standing. Please consult the Transfer Guide4 website.

EDUCATIONAL/DEGREE PATHWAY

Pathways to the Honours Bachelor of Technology (Construction Management) degree program are also available after completing the three-year Construction Engineering Technology program.

For more information, see georgebrown.ca/transferguide.

ADMISSION REQUIREMENTS

Applicants are selected on the basis of their academic achievement, including the required courses, and any other selection criteria outlined below.

• Ontario Secondary School Diploma or equivalent**
• Grade 12 English (C or U)
• Grade 11 Math (M or U) or Grade 12 (C or U)

** MATURE STUDENT STATUS (19 YEARS OF AGE OR OLDER AND NO OSSD)

Mature Students may take the Admissions Assessment5 for English and Math, OR may consider upgrading to achieve the credit(s) needed in English6 and Math7.

Please note that George Brown is committed to ensuring that applicants will succeed in their program of choice and meeting the minimum requirements does not guarantee admission to the program. Applicants may be required to have grades higher than the minimum requirements stated.

COURSE EXEMPTIONS

College or university credits may qualify you for course exemptions. Please visit georgebrown.ca/transferguide for more information.

INTERNATIONAL STUDENTS

Visit the International Admissions8 page for more information.

CONTACT US

Angelo DelZotto School of Construction Management
Phone: 416-415-5000, ext. 4398
Email: construction_eng@georgebrown.ca
Our office hours are 8 a.m. - 4 p.m., room E228.
For more information about George Brown College, you may also call the Contact Centre at 416-415-2000 (TTY 1-877-515-5559) or long distance 1-800-265-2002.

VISIT OUR CAMPUS

Do you have questions about this program or your career options? Join us for an on-campus Information Session. You'll have the opportunity to meet our friendly instructors and staff, ask questions and experience what it's like to be in a George Brown College classroom.
Sign up for an Information Session9.

LINKS REFERENCE

2http://www.georgebrown.ca/international/futurestudents/fees/
3http://www.georgebrown.ca/programs/construction-engineering-technology-program-t105/
4http://www.georgebrown.ca/transferguide/
5http://www.georgebrown.ca/assessment/admi-pre/
6http://www.georgebrown.ca/upgrading-credits/english-diploma/
7http://www.georgebrown.ca/upgrading-credits/math-diploma/
8http://www.georgebrown.ca/international/futurestudents/howtoapply/
9http://www.georgebrown.ca/tours_technology/

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