

ARCHITECTURAL TECHNOLOGY

Program: ARTE

Credential: Ontario College Advanced Diploma, Co-op

Delivery: Full-time

Work Integrated Learning: 2 Co-op Work Terms

Length: 6 Semesters, plus 2 work terms

Duration: 3 Years

Effective: Fall 2025

Location: Barrie

Description

Students in this program prepare for work with architects, engineers, project managers, and building officials as integral parts of teams that develop, present, execute, and review building projects.

The program equips students with a comprehensive understanding of current competitive architectural and construction environments that challenge professionals in the field. The curriculum includes traditional and emerging construction technologies and materials, current codes and standards, sustainability and environmental subjects, and essential business and entrepreneurial strategies.

Various aspects of architectural design are present throughout the curriculum, starting from design fundamentals and ending in the third year with a two-semester architecture capstone project evaluated by a large industry panel.

Learning is supported by courses dedicated to industry-standard computer applications, such as Autodesk® AutoCAD® and Revit®, presented not only in printed drawings but also in renderings and interactive simulations using Chaos® Enscape®.

The program also introduces students to leading-edge technologies related to Building Information Modeling (BIM), such as virtual reality immersion, 3D building scanning, and 3D printing.

Career Opportunities

Graduates may find work in the private sector as technologists in architectural design firms and construction engineering offices or construction sites. They may also find employment as estimators, purchasers, quantity surveyors, architectural/structural modelers, drafters, or detailers using the latest Computer Aided Design (CAD) technology. In the public sector, they may find employment in many government agencies as building inspectors, plans examiners, chief building officials, zoning examiners, and building code advisors.

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. communicate and collaborate with the project team, project stakeholders, and authorities having jurisdiction to support project delivery;
2. prepare, analyze, and revise drawings and other graphical representations to support the design and completion of building projects;

3. obtain, analyze, and prepare project documentation and specifications used for site planning, building design, and project execution;
4. prepare time, costs, and quantity estimates to contribute to a scheduling and tendering process;
5. propose technical solutions supported by principles of building science during the design and construction phases of building projects;
6. consult and collaborate with members of professional disciplines, such as structural, mechanical, and electrical building systems to confirm technical information;
7. collaborate in the development of building designs, for new and existing buildings, by analyzing project requirements;
8. comply with the legal, professional, and regulatory requirements, as well as established standards and current building codes, in the practice of building design and construction;
9. implement sustainable and resilient design principles and practices to manage impacts related to building projects;
10. implement and use current and emerging technologies to manage documents and information to support the construction and design of building projects;
11. contribute and collaborate in the administration of the construction phase of building projects by applying principles of project management;
12. develop strategies for professional development to enhance performance and maintain currency within the industry.

Practical Experience

All co-operative education programs at Georgian contain mandatory work term experiences aligned with program learning outcomes. Co-op work terms are designed to integrate academic learning with work experience, supporting the development of industry specific competencies and employability skills.

Georgian College holds membership with, and endeavours to follow, the co-operative education guidelines set out by the Co-operative Education and Work Integrated Learning Canada (CEWIL) and Experiential and Work-Integrated Ontario (EWO) as supported by the Ministry of Colleges and Universities.

Co-op is facilitated as a supported, competitive job search process. Students are required to complete a Co-op and Career Preparation course scheduled prior to their first co-op work term. Students engage in an active co-op job search that includes applying to positions posted by Co-op Consultants, and personal networking. Co-op work terms are scheduled according to a formal sequence that alternates academic and co-op semesters as shown in the program progression below.

Programs may have additional requirements such as a valid driver's license, strong communication skills, industry specific certifications, and ability to travel. Under exceptional circumstances, a student may be unable to complete the program progression as shown below. Please refer to Georgian College Academic Regulations for details.

International co-op work terms are supported and encouraged, when aligned with program requirements.

Further information on co-op services can be found at www.GeorgianCollege.ca/co-op (<https://www.georgiancollege.ca/co-op/>)

External Recognition

This program is accredited by Co-operative Education and Work-Integrated Learning Canada (CEWIL Canada).

Program Progression

The following reflects the planned progression for full-time offerings of the program.

Fall Intake

- **Sem 1:** Fall 2025
- **Sem 2:** Winter 2026
- **Work Term 1:** Summer 2026
- **Sem 3:** Fall 2026
- **Sem 4:** Summer 2027
- **Work Term 2:** Fall 2027
- **Sem 5:** Winter 2028
- **Sem 6:** Summer 2028

Articulation

A number of articulation agreements have been negotiated with universities and other institutions across Canada, North America and internationally. These agreements are assessed, revised and updated on a regular basis. Please contact the program co-ordinator for specific details if you are interested in pursuing such an option. Additional information can be found on our website at <https://www.georgiancollege.ca/admissions/credit-transfer/> (<http://www.georgiancollege.ca/admissions/credit-transfer/>)

Admission Requirements

- Ontario Secondary School Diploma (OSSD) or equivalent, or mature student status
- Grade 12 English (C or U)
- Grade 12 Mathematics (C or U)

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: www.georgiancollege.ca/admissions/academic-regulations/ (<https://www.georgiancollege.ca/admissions/academic-regulations/>)

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit for Prior Learning website for details: www.georgiancollege.ca/admissions/credit-transfer/ (<https://www.georgiancollege.ca/admissions/credit-transfer/>)

Additional Information

Having an [automotive driver's licence](https://www.ontario.ca/page/drivers-licence/) (<https://www.ontario.ca/page/drivers-licence/>) prior to applying to co-op work term positions, which usually occur during semester two, is strongly recommended. Many employers require a full G licence to drive a company vehicle from worksite to worksite and will prefer applicants who have it.

A personal laptop is strongly recommended (Windows operating system is required if purchased) in order to support a wider job search, facilitate more co-op employment opportunities, and assist on-campus learning and in-class activities (as needed). Online access, trial versions, or educational licenses are available for most required software.

Graduation Requirements

- 41 Program Courses
- 2 Communications Courses
- 3 General Education Courses
- 2 Co-op Work Terms

Graduation Eligibility

To graduate from this program, the passing weighted average for promotion through each semester, from year to year, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

Program Tracking

The following reflects the planned course sequence for full-time offerings of the Fall intake of the program. Where more than one intake is offered contact the program co-ordinator for the program tracking.

Semester 1		Hours
Program Courses		
ARCH 1000	Architectural Design - Fundamentals	42
ARCH 1005	Architectural Drafting 1	42
ARCH 1007	Drawing for Architecture	42
CONS 1005	Construction Technology - Structures	42
CONS 3010	Occupational Health and Safety Act Regulations	42
MATH 1046	Extended Math for Construction	56
SURV 1002	Surveying	42
Communications Course		
Select 1 course from the communications list during registration.		42
Hours		350
Semester 2		
Program Courses		
ARCH 1001	Quantity Surveying 1	42
ARCH 1002	Architectural Design - Residential	42
ARCH 1006	Architectural Drafting 2	42
ARCH 2002	Architectural Codes and Standards 1	42
ARCH 2003	History of Architecture	42
BLDG 3000	Legal Processes and Responsibilities in the Ontario Building Code Act	42
CONS 1006	Construction Technology - Interiors	42
Communications Course		
Select 1 course from the communications list during registration.		42
Hours		336
Semester 3		
Program Courses		
ARCH 1003	Quantity Surveying 2	42
ARCH 2000	Architectural Design - Commercial	42
ARCH 2004	Architectural Drafting 3	42
ARCH 2005	Architectural Codes and Standards 2	42
CONS 2005	Construction Technology - Building Envelope	42
MENG 2016	Statics	42
General Education Courses		
Select 2 courses from the general education list during registration.		84
Hours		336

Semester 4

Program Courses

ARCH 2006	Architectural Design - Sustainable Solutions	42
ARCH 2008	Building Information Modeling 1	42
BLDG 2000	Ontario Building Code and Provincial Standards	42
CONS 2006	Building and Materials Reuse	42
ENVR 1008	Architecture and the Environment	42
MENG 2017	Strength of Materials	42
MGMT 2025	Project Management	42
General Education Course		
Select 1 course from the general education list during registration.		42

Hours	336
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Semester 5

Program Courses

ARCH 3000	Architectural Project 1	42
ARCH 3005	Building Information Modeling 2	84
CONS 3000	Structural Analysis - Beams and Columns	42
CONS 3015	Site Planning	42
ENTR 1002	Introduction to Entrepreneurship	42
MGMT 3006	Contract Management	42
MGMT 3012	Site Management and Specifications	42

Hours	336
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Semester 6

Program Courses

ARCH 3001	Architectural Project 2	42
ARCH 3004	Landscape Design Essentials	42
ARCH 3006	Building Information Modeling 3	84
CONS 3003	Structural Analysis - Design	42
CONS 3005	Building Services	42
MGMT 3011	Business Management	42
MGMT 3015	Project Costing	42

Hours	336
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Total Hours	2030
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Co-op Work Terms
Hours

COOP 1062	Technology Work Term 1	560
COOP 2009	Technology Work Term 2 (occurs after Semester 4 - Fall and Winter intakes)	560

Hours	1120
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Total Hours	1120
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Graduation Window

Students unable to adhere to the program duration of three years (as stated above) may take a maximum of six years to complete their credential. After this time, students must be re-admitted into the program, and follow the curriculum in place at the time of re-admission.

Disclaimer: *The information in this document is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs.*

Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.