

Area of Interest: Business

## **Construction Project Management**

Ontario College Graduate Certificate Program Code: 1505X01FXA

1 Year

Ottawa Campus

## **Our Program**

## Plan to build a solid career in the construction industry.

Algonquin College has partnered with CDI College, a private career college located in the Greater Toronto Area, to deliver this program to international students at their campus in Mississauga, Ontario.

The Construction Project Management Ontario College Graduate Certificate program prepares you for advancement in the construction industry and the management of construction projects in a wide variety of settings.

This program provides you with a solid educational foundation in construction or construction-related fields. Learn to manage the total construction process effectively, from initial planning to program completion. Use case studies throughout the program and prepare for a full range of situations that can emerge on construction job sites.

Each course in the program has been accredited by the Canadian Construction Association for the Gold Seal Certification Program.

Graduates may find employment in a variety of construction project management positions, including:

- project manager

To qualify for this graduate certificate, you must complete the program within one year.

#### **SUCCESS FACTORS**

This program is well-suited for students who:

- Are interested in the construction industry.
- Have the ability to see the big picture.
- Like building teams that are working towards common goals.
- Enjoy balancing competing demands.
- Thrive on the challenge and demands of overseeing large projects. Appreciate having tangible results from their work.

## **Employment**

Graduates may find employment in a variety of construction project management positions. These positions include but are not restricted to project manager, site superintendent, project superintendent, construction manager and construction operations manager. The knowledge and skills acquired in this program position graduates for increasing levels of responsibilities in the completion of medium- and large-scale construction projects.

## **Learning Outcomes**

The graduate has reliably demonstrated the ability to:



- Develop and use strategies to promote continuous professional learning in the construction industry.
- Monitor and support workplace health and safety practices and procedures which are compliant with current legislation and regulations.
- Assess construction project operations for compliance with contractual obligations, applicable laws, standards, bylaws, codes and ethical practices in construction methodology.
- Analyze and monitor construction processes to ensure that sustainability practices are implemented in accordance with contract documents, industry standards and environmental legislative requirements.
- Establish and manage relationships among diverse project stakeholders to achieve construction project goals.
- Manage the production, storage, retrieval and communication of project-related digital documents according to best practices, to meet construction project deadlines and goals.
- Perform a feasibility study to inform decisions in the planning phase of a construction project.
- Schedule, manage and evaluate the progression of construction projects\* by applying the principles, practices and tools of construction project management to complete projects on time and within budget.
- Prepare estimates and manage procurement processes to control costs in accordance with best practices in construction project management.
- Develop and oversee quality assurance and control- processes involved in the completion of construction projects to meet project specifications and industry quality standards.
- Analyze and manage project risks to mitigate their impact throughout the construction project lifecycle.
- Formulate human resource management strategies to optimize personnel requirements for construction project completion.
- Build and lead multidisciplinary teams throughout the construction project lifecycle to accomplish construction project goals.
- Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship.

## **Program of Study**

Level: 01	Courses	Hours
CON2000Z	Overview of the Construction Industry	28.0
CON2001Z	Construction Safety	28.0
CON2002Z	Construction Estimating	84.0
ENL2100Z	Communication for Construction Management	56.0
LAW1000Z	Law and Contracts for the Construction Industry	56.0
MGT1100Z	Project Management Principles	56.0
Level: 02	Courses	Hours
CON2100Z	Construction and the Environment	42.0



CON2101Z	Construction Job Site Controls	84.0
CON2102Z	Construction Planning and Scheduling	56.0
CON2103Z	Construction Project Cost Control and Accounting	56.0
MGT1200Z	Human Resources Management	56.0
MGT1300Z	Applied Construction Project Management	56.0

## Fees for the 2023/2024 Academic Year

Tuition and related ancillary fees for this program can be viewed by using the Tuition and Fees Estimator tool at <a href="http://www.algonquincollege.com/fee-estimator">http://www.algonquincollege.com/fee-estimator</a>

Further information on fees can be found by visiting the Registrar's Office website at <a href="http://www.algonquincollege.com/ro">http://www.algonquincollege.com/ro</a>

Fees are subject to change.

Additional program related expenses include:

The approximate cost of books and supplies is \$600 over the program duration.

For more information, please contact CDI College at acstudentservices@cdicollege.ca.

## Admission Requirements for the 2024/2025 Academic Year

## **Program Eligibility**

- Ontario College Diploma, Ontario College Advanced Diploma or Degree or equivalent in a construction-related discipline such as: architecture; civil, construction, or electrical engineering; building construction; heating, refrigeration, and air conditioning; interior decorating; cabinetmaking and furniture; powerline; and construction carpentry (joinery, heritage, masonry - heritage and traditional); OR At least five (5) years minimum construction management related work experience. These applicants will be assessed individually and will be required to complete an Eligibility Package. Eligibility Package submission details can be found on the Algonquin College Additional Admission Requirements website: http://www.algonquincollege.com/admissionspackages.

## **Application Information**

# CONSTRUCTION PROJECT MANAGEMENT Program Code 1505X01FXA

International applicants please visit this link for application process information: https://algonquincollege.force.com/myACint

For further information on the admissions process, contact:

Registrar's Office Algonquin College 1385 Woodroffe Ave Ottawa, ON K2G 1V8 Telephone: 613-727-0002 Toll-free: 1-800-565-4723

#### **Additional Information**

## PRIOR LEARNING AND RECOGNITION (PLAR)

Students who wish to apply for PLAR need to demonstrate competency at a post-secondary level in all of the course learning requirements. Evidence of learning achievements for PLAR candidates may include a comprehensive challenge examination and/or completion of a portfolio.



## **Course Descriptions**

## **CON2000Z Overview of the Construction Industry**

Students explore the breadth of the construction industry and develop a deeper knowledge of all of the factors that impact the industry. While attention is paid to the economic influence of the industry, students increase their awareness of various stakeholders that are routinely involved in construction projects.

Prerequisite(s): none Corerequisite(s):none

## **CON2001Z Construction Safety**

Project managers endeavour to maximize efficiency and minimize lost person hours. Ensuring a safe working environment is the first step toward that goal. Students examine the various levels of legislative requirements that relate to safety on construction sites. From the perspective of a manager, students also develop a job site safety program.

Prerequisite(s): none Corerequisite(s):none

## **CON2002Z Construction Estimating**

Foremost among the challenges faced by project managers is ensuring the financial viability of a project. This begins with the development of the project bid. Unreasonable estimates reduce the chances of success. Students work through the bid process and prepare estimates with varying levels of detail that are both reasonable and achievable.

Prerequisite(s): none Corerequisite(s):none

#### **CON2100Z Construction and the Environment**

Students analyze the connections between construction and the environment. Case studies and research projects require students to trace the full scope of environmental concerns connected with the construction industry. Using applicable legislation and guidelines as support, students review environmental management plans.

Prerequisite(s): CON2000Z Corerequisite(s):none

#### **CON2101Z Construction Job Site Controls**

To manage a construction project effectively, project managers need to maintain control of the job site. Students develop strategies to direct the materials, equipment and labour that move on and off the jobsite. Drawing on practical examples, students complete exercises to establish procedures and protocols for opening, running and closing a jobsite.

Prerequisite(s): CON2001Z and LAW1000Z

Corerequisite(s):none

## **CON2102Z Construction Planning and Scheduling**

The constant challenge of project management work in the construction industry involves ensuring that all required elements for a project phase are in the right place at the right time. Using common project management tools, students coordinate the planning and scheduling of tasks that are faced in the workplace. In addition to the development of project plans, students implement strategies for modifying and improving plans that are already underway.

Prerequisite(s): CON2002Z and MGT1100Z

Corerequisite(s):none



## **CON2103Z Construction Project Cost Control and Accounting**

Beyond the tangible resources of equipment, materials and labour, project managers must work to preserve the financial margins that ensure the project's viability. Students explore the fundamentals of accounting and accounting functions with a view to maintaining accurate financial records for a project. Exercises and activities to identify the importance of cost control and oversight responsibilities of managers.

Prerequisite(s): CON2002Z and MGT1100Z

Corerequisite(s):none

#### **ENL2100Z Communication for Construction Management**

In order to keep projects on track, and stakeholders involved and aware of their roles and responsibilities, project managers need solid communication skills. Through a variety of exercises and simulations, students hone their communication skills and prepare both project-related and construction-related documents. Students also use and explore technological tools that enhance and facilitate communication.

Prerequisite(s): none Corerequisite(s):none

#### LAW1000Z Law and Contracts for the Construction Industry

Project management, especially in the construction industry, involves ample contractual agreements. With significant resources and capital connected to these contracts, it is important for project managers to have a firm grounding in contract law. Drawing on a variety of case studies and construction law resources, students develop a solid foundation in those elements of Canadian law that apply to contracts and the construction industry.

Prerequisite(s): none Corerequisite(s):none

#### **MGT1100Z Project Management Principles**

Students investigate and consolidate the principles, technological tools, knowledge and theories that lead to best practices in project management. Using case studies and simulations, students generate the relevant documentation and tools that lay the groundwork for successful projects.

Prerequisite(s): none Corerequisite(s):none

#### **MGT1200Z Human Resources Management**

Human resources form an integral part of any construction project, and the success or failure of the project can hinge on effective management of the people involved. Using a variety of available resources, students formulate strategies for working effectively with permanent and casual employees, as well as certified trade labourers. Case studies provide the opportunity to debate alternative staffing models for a given scenario.

Prerequisite(s): ENL2100Z and LAW1000Z and MGT1100Z Corerequisite(s):none

## **MGT1300Z Applied Construction Project Management**

Drawing on the knowledge and skills developed throughout the program, students manage a multifaceted construction project simulation in collaboration with organizations. Through the dynamic, problem-based approach, students are drawn into various stages in the project life cycle and are required to assess, document and develop plans for the progression of projects.

Prerequisite(s): CON2000Z and CON2001Z and CON2002Z and CON2102Z and ENL2100Z and LAW1000Z and MGT1100Z

Corerequisite(s):none

