

# CLOUD ARCHITECTURE & ADMINISTRATION (CAA)

## About the Program

The Cloud Architecture & Administration graduate certificate program will provide you with knowledge and skills to become an essential part of a modern information technology (IT) team. You will learn how to effectively and securely integrate IT infrastructure, including cloud services, internet of things devices and traditional on-premises equipment. You will also develop an understanding of potential issues with privacy and the law and how to mitigate those risks. During the program, you will gain essential leadership and management skills, providing opportunities for you to advance in your career.

An optional work-integrated learning experience will offer an opportunity to expand your learning and apply skills to real-life work settings. You will also work on a capstone project that integrates knowledge and skills obtained throughout the program.

**Part-time option is available > (<https://www.senecapolytechnic.ca/ce/technology/network-database-system/cloud-architecture-administration/>)**

## Computer Requirements

- 16 GB RAM minimum
- 256 GB SSD Hard Drive (500+ GB would be better)
- Quad-core i7 2.4GHz or better
- Video card (2GB RAM minimum/4GB RAM recommended)
- Webcam

## Credential Awarded

Ontario College Graduate Certificate

## Duration

2 Semesters (8 months)

## Starts

January, May, September

## Program and Course Delivery

This program is offered in Seneca's hybrid delivery format. Some coursework is online and some must be completed in person. Students will need to come on campus to complete in-person learning requirements.

## Skills

Throughout this program you will develop the following skills:

- support cloud computing infrastructure
- data storage and management solutions
- integrating cloud services and on premises systems
- understanding best practices for security protocols

- design and implement comprehensive information security architecture
- project planning and management
- leadership and communication skills

## Work Experience

### Optional Work Term

Students meeting all academic requirements may have the opportunity to complete an optional work term(s) in a formal work environment. The work term(s) is similar in length to an academic semester and typically involves full-time work hours that may be paid or unpaid. In programs with limited work term opportunities, additional academic requirements and a passing grade on a communication assessment may be required for eligibility. Eligibility for participation does not guarantee a work position will be secured. Additional fees are required for those participating in the optional work term stream regardless of success in securing a work position.

Review eligibility requirements for work-integrated learning (<https://www.senecapolytechnic.ca/employers/seneca-works/work-integrated-learning/eligibility.html>)

## Your Career

Graduates of the program can explore the following career options:

- desktop and application support technician
- computer technician
- help desk technician
- cloud administrator
- computer and systems manager
- IT analyst
- IT consultant
- IT administrator

## Program of Study

Course Code	Course Name	Weekly Hours
<b>Semester 1</b>		
ACS730	Cloud Automation and Control Systems	4
CLO700	Introduction to Cloud Infrastructure	4
CLO745	Cloud Architecture	4
PFC710	Programming for Cloud	3
PMC720	Project Management	3
SEC715	Security Management	4
<b>Semester 2</b>		
CAA900	Capstone Project	4
CLO800	Cloud Integration	4
CLO835	Portable Technologies in Cloud	4
DSM760	Data Storage and Management Technologies	4
ECR775	Ethics, Compliance and Risk Management	3
SEC815	Incident Response and Forensics	4
WTP100	Work Term Preparation *	1

**Work-Integrated Learning Term**

CAA441	Cloud Architecture and Administration, Work Term *	30
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\* Work-Integrated Learning option only

## Program Learning Outcomes

This Seneca program has been validated by the Credential Validation Service as an Ontario College Credential as required by the Ministry of Colleges and Universities.

As a graduate, you will be prepared to reliably demonstrate the ability to:

- Create secure micro-service solutions to support the virtual infrastructure and application development needs of the client.
- Deploy hybrid cloud environments to respond to rapidly changing business requirements.
- Design and implement fault tolerant solutions within cloud computing platforms to maximize the availability and reliability of services.
- Create automated processes to provide accurate, efficient, and adaptable solutions to constantly changing business environments.
- Assess industry standard security practices to design solutions that address issues.
- Assess the viability of developing, deploying, maintaining and securing computing solutions utilizing a variety of resiliency testing.
- Evaluate IT practices and solutions to ensure governance and legal compliance.
- Apply basic project management principles to identify project goals, costs, constraints and deliverables resulting in project success.

## Admission Requirements

- Ontario university/college degree or college diploma or equivalent in Information Technology. Applicants with an equivalent combination

of partial postsecondary and/or three to five years of related work experience may be considered for admission. A relevant resumé and references must be provided.

- English proficiency (<https://www.senecapolytechnic.ca/registrar/canadian-applicants/admission-requirements/english-proficiency.html>) for graduate certificates

Canadian citizens or permanent residents educated outside of Canada must provide a World Education Services (WES) or ICAS Canada credential evaluation.

## International Student Information

International admissions requirements vary by program and in addition to English requirements (<https://www.senecapolytechnic.ca/international/apply/how-to-apply/admission-requirements/english-requirements.html>), programs may require credits in mathematics, biology, and chemistry at a level equivalent to Ontario's curriculum, or a postsecondary degree or diploma, equivalent to an Ontario university or college. Program-specific pre-requisite courses and credentials are listed with the admission requirements on each program page. To review the academic requirements please visit: Academic Requirements - Seneca, Toronto, Canada ([senecapolytechnic.ca](https://www.senecapolytechnic.ca/international/apply/how-to-apply/admission-requirements/academic-requirements.html)) (<https://www.senecapolytechnic.ca/international/apply/how-to-apply/admission-requirements/academic-requirements.html>).

## Pathways

As a leader in academic pathways, we offer a range of options that will allow you to take your credential further in another Seneca program or a program at a partner institution.

To learn more about your eligibility, visit the Academic Pathways (<https://www.senecapolytechnic.ca/pathways.html>) web page.

Last updated: August 5, 2025 at 6:59 p.m.