CYBERSECURITY (CSEC)

Train to battle cybercrime and protect businesses

Cybercrime costs the world trillions of dollars each year. Become one of the good guys and train to keep computer systems and wireless networks safe from security risks. As an ethical hacker, you'll learn how to protect computers, applications, and networks from unauthorized and malicious users or software. You'll cover key cybersecurity concepts of infrastructure security configuration, information system security, risk management and cybersecurity policies, as well as legal and ethical aspects of the industry.

As a graduate, you will be prepared to work as part of an IT support or security team.

Program highlights

- Cambrian is a Palo Alto Cybersecurity Academy with curriculum aligned to the National Initiative for Cybersecurity Education (NICE) framework
- Gain a comprehensive understanding of cyberattacks
- Cover key cybersecurity concepts
- Solve real-world problems with a capstone project
- Grads can challenge various industry certifications

Program of study for 2025-26 Academic Year

Semester 1		Credits
CSC 7300	Fundamentals of Information Technology	2
CSC 7305	CSEC Policies and Compliance	3
CSC 7304	Business Contingency Planning	3
CSC 7303	Network Defense	3
CSC 7302	CSEC Infrastructure	3
CSC 7301	Intro to Cybersecurity	3
CSC 7313	Comm for Cybersecurity Prof	3
	Credits	**20**
Semester 2		
CSC 7312	Malware Dev and Analysis	3
CSC 7311	Ethical Hacking	3
CSC 7310	IT Security Forensics	3
CSC 7309	CSEC Tool Development	3
CSC 7308	SysOps and Cloud Security	3
CSC 7307	Cybersecurity Capstone	6
CSC 7306	Mobile Wireless Security	3
	Credits	**24**
	Total Credits	**44**

Note:

Part-time students will be provided with a pathway to complete this program on a part-time basis.

Admission requirements

Applicants must be graduates of an Ontario College (or equivalent) diploma, advanced diploma, or degree program in computer science, information technology, or a related field.

OR

Applicant must possess five years of work experience in a related field (or combination of education and work experience) as judged by the College to be equivalent. Applicants must submit a resume detailing their related experience and a cover letter outlining their competencies and preparedness for the program.

Program delivery

2025-2026
Fall term start

SEMESTER 1: Fall 2025
SEMESTER 2: Winter 2026

Winter term start

SEMESTER 1: Winter 2026
SEMESTER 2: Spring 2026

Spring term start

SEMESTER 1: Spring 2026
SEMESTER 2: Fall 2026

Registration to practice/additional testing

Graduates may challenge the following industry certifications:

- Palo Alto Networks Certified Cybersecurity Entry-level Technician (PCNSA)
- Palo Alto Networks Certified Network Security Administrator (PCNSE)
- EC-Council Certified Ethical Hacker (CEH)
- EC-Council Certified Network Defender (CND)

Specific program pathways

College or university degree opportunities

If you are a graduate of this program, you may continue your studies at a college or university and you may receive credit(s) for your prior college education. Refer to Cambrian's college and university agreement (https://cambriancollege.ca/supports-services/articulation-agreements/universities-in-canada/) details for further information.

Employment opportunities

Graduates of this one-year graduate certificate program will be positioned to pursue positions in a wide range of public and private organizations in roles such as:

- Information Systems Security Analysts
- Advisors
- Consultants
- Specialists
- Educators
- Network Technicians
- Network Administrators

Contacts

Myles Peterson
Program Coordinator
705-566-8101, ext 6431
myles.peterson@cambriancollege.ca

INTERNATIONAL ADMISSIONS

mailboxadmissions@cambriancollege.ca