

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AIGC)

Start an in-demand career and help drive the artificial intelligence boom

Artificial intelligence (AI) and machine learning (ML) are changing the world. The technologies are everywhere and are pushing what's possible in fields like health care, finance, and more. Start an innovative career where you'll use these technologies to identify patterns, automate processes, and support decision-making in public and private sectors. Equipped with mathematical and computational foundations, you'll delve into deep and modern machine learning technologies and gain hands-on experience in the training, validation, and testing phases of AI and ML systems. From data collection to preprocessing, modeling, and final production, you will learn to manage and effectively communicate each stage of an AI project.

Program highlights

- Only program of its kind in northern Ontario
- Gain hands-on experience in a culminating Applied Project
- Complete in as little as 8 months
- FLEX Delivery

Program of study for 2024-25 Academic Year

Semester 1		Credits
AIE 1001	Intro to AI and ML	2
AIE 1002	Programming for AI	2
AIE 1003	AI Cloud Frameworks	3
AIE 1004	Math and Algorithms for AI	3
AIE 1005	Full Stack Data Science	3
ANA 1007	Data Engineering	3
DBA 1003	Data Collection and Analysis	3
Credits		19
Semester 2		Credits
AIE 1006	Deep Learning	3
AIE 1007	Natural Language Processing	3
AIE 1009	Machine Learning	3
AIE 1010	AI Project Management	3
AIE 1011	AI Ethics	3
AIE 1014	AI Applied Project	4
Credits		19
Total Credits		38

Admission requirements

Applicants must be graduates of a diploma, advanced diploma, or degree program from an Ontario College or equivalent with a focus in computer programming, software engineering, computer science, data analytics, mathematics or statistics.

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 (any and all postsecondary transcripts must still be submitted).

Program delivery

2024-2025

Fall term start

SEMESTER 1: Fall 2024

SEMESTER 2: Winter 2025

Specific program pathways

College/university degree opportunities

Graduates from this program may continue their studies at college/university and may receive credit for their prior College education.

Refer to (<https://cambriancollege.ca/supports-services/articulation-agreements/>) **College/University Agreements** (<https://cambriancollege.ca/supports-services/articulation-agreements/>) for further information.

Cambrian College currently offers four related diploma programs:

- Computer Programming – Internet of Things (CPIN)
- Computer System Technician (CETN)
- Computer System Technology (CETY)
- Game Design (GAME)

Graduates from these programs, as well as Ontario College diploma programs such as Computer Engineering Technology, Computer Programmer, Computer Programming and Analysis, Computer Systems Technology, and degree programs such as Honours Bachelor of Data Science and Analytics, Honours Bachelor of Technology - Informatics and Security, and Honours Bachelor of Technology – Software Development, may apply and be considered for admission.

There is also the opportunity for credential bundling between other Cambrian graduate certificate programs including:

- Business Analytics (BAPG)
- IT Business Analysis (BAGC)
- Health Analytics (HAGC)
- Crime Analytics (CAGC)
- Mobile Application Development (MAPD)
- Cybersecurity (CSEC)