# ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING, CERTIFICATE

# **Certificate in Artificial Intelligence and Machine Learning (346010C)**

This certificate program is designed for both degree and non-degree seeking students who have an interest in computing and AI techniques and skills.

The program offers both core coursework in artificial intelligence (AI) and a range of electives. The core courses provide skills and training necessary for students to start or progress in the growing field of AI, while the electives allow students to focus their studies within the field.

The program is designed to help students prepare for the many careers and industries in which employers are looking for AI experience. This AI certificate provides recognition of their AI experience.

### **Requirements for Admission**

Admission to this certificate program requires that students have completed the following two introductory programming courses or their equivalents with a GPA of 2.5 or better.

Code	Title	Hours
CPSC 209	Computer Science I	4
CPSC 210	Computer Science II	4

Students must also complete this computer science core course or its equivalent before or near the beginning of their study for the certificate program:

Code	Title	Hours
CPSC 316	Data Structures	3

While not required for the certificate directly, this course is a prerequisite to a required course for the certificate program.

Please note that some of the required and elective courses for this certificate have additional prerequisites that must be met.

The following information has official approval of **The Department** of **Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Computer Science" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. The credits earned in the certificate program cannot be counted towards the Computer Science minor program.

#### Summary

Code	Title	Hours
Required Courses		6
Electives		6
Total Hours		12

# **Required Courses**

Code	Title	Hours
CPSC 435	Algorithms	3
CPSC 460	Artificial Intelligence & Heuristic Programming	3
Total Hours		6

## **Electives**

Code	Title	Hours
Complete six credits:		6
CPSC 411	Human-Computer Interaction	
CPSC 415	Big Data Programming	
CPSC 436	Applied Machine Learning	
CPSC 438	Interactive Game & Game Engine Design	
CPSC 445	Introduction to Bioinformatics	
CPSC 477	Introduction to Parallel Processing	
CPSC 489	Topics in Computer Science <sup>1</sup>	
Total Hours		6

Must be on a related topic approved by the Department of Computer Science.