

# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE - PROGRAM PLAN

## 2 YEAR - ONTARIO COLLEGE GRADUATE CERTIFICATE JAN 2023 INTAKE (WINTER)

All courses have a minimum passing grade of 50%. A minimum of 60% GPA is required for graduation.

### WINTER 2023 SEMESTER 1 (JANUARY - APRIL) - 7 COURSES

**TOTAL HOURS: 280**

AISC 1000 Python  CREDIT VALUE: 5	AISC 1001 Statistical Modelling and Inference  CREDIT VALUE: 3	AISC 1002 Maths for Data Science  CREDIT VALUE: 3	AISC 1003 Machine Learning 1  CREDIT VALUE: 3	AISC 1004 Deterministic Models and Optimization  CREDIT VALUE: 3	AISC 1005 AI Principles and Best Practices in Canada  CREDIT VALUE: 2	AISC 1006 Step Presentation (Step 1)  CREDIT VALUE: 1
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### SPRING 2023 SEMESTER 2 (MAY- AUGUST) - 7 COURSES

**TOTAL HOURS: 280**

AISC 2000 Machine Learning 2  CREDIT VALUE: 3	AISC 2001 Data Visualization  CREDIT VALUE: 4	AISC 2002 Data Warehousing and Business Intelligence  CREDIT VALUE: 3	AISC 2003 Advanced Analytics  CREDIT VALUE: 3	AISC 2004 Data Storytelling Techniques  CREDIT VALUE: 3	AISC 2005 Business Communications in Canada  CREDIT VALUE: 3	AISC 2006 Step Presentation (Step 2)  CREDIT VALUE: 1	AISC 2016 Co-op and Canadian Career Search Prep 1  CREDIT VALUE: 1
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### FALL 2023 - ACADEMIC BREAK (SEPTEMBER -DECEMBER)

### WINTER 2024 SEMESTER 3 (JANUARY - APRIL) - 8 COURSES

**TOTAL HOURS: 294**

AISC 2007 Deep Learning  CREDIT VALUE: 4	AISC 2008 Computer Vision  CREDIT VALUE: 3	AISC 2009 Natural Language Processing  CREDIT VALUE: 3	AISC 2010 Programming and Deployment of IoT Devices  CREDIT VALUE: 3	AISC 2011 Data Science Project Management and Requirement Gathering CREDIT VALUE: 1	AISC 2012 Tools for AI  CREDIT VALUE: 3	AISC 2013 Deployment of AI Solutions  CREDIT VALUE: 3	AISC 2017 Co-op and Canadian Career Search Prep 2  CREDIT VALUE: 1
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To be eligible for CO-OP or AIP, you must have passed all your courses and have a weighted GPA of 60% or higher.

### SPRING 2024 SEMESTER 4 (MAY - AUGUST) - 2 COURSES

**TOTAL HOURS: 490**

KAGGLE COMPETITION OR PROFESSIONAL CERTIFICATION		CO-OP PLACEMENT OR APPLIED INDUSTRY PROJECT	
AISC 3001 Kaggle Competition	AISC 3002 Professional Certification Preparation	COOP 3000 Industry Co-op	AISC 3000 Applied Industry Project - AI and Data Science
This course allows you to find and publish data sets, explore and build models in a web-based data-science environment, work with other data scientists and machine learning engineers, and enter competitions to solve data science challenges.	You will work toward certification in the most in-demand proprietary certifications to enhance your employability attributes upon graduation.	Co-op is a work integrated experience built into post-secondary programs to allow you to get hands on experience in your field of study while applying your academic studies. The integration of formal learning practices with developmental learning opportunities helps to enhance and consolidate the knowledge, skills, abilities and attitudes of emerging professionals. This is also an opportunity to interact and demonstrate your skills to potential employers.	This option is only available under extenuating circumstances and students will need the approval of the Academic Vice-President.  The integration of formal learning practices with developmental learning opportunities helps to enhance and consolidate the knowledge, skills, abilities and attitudes of emerging professionals. The industry project will be performed on the College campus under the guidance of the College faculty.