AIDI 1006: ARTIFICIAL INTELLIGENCE INFRASTRUCTURE AND ARCHITECTURE

Course outlines are reviewed annually as part of continual quality improvement. This course was last updated for the effective term below.

Effective Term
Fall 2020

Full Course Title
Artificial Intelligence Infrastructure and Architecture

Academic Level
Post Graduate

Is this a new Ontario Learn course?
No

Subject Code
AIDI - PG Artifical Intelligence

Course Number
1006

Division
Liberal Arts, DAVA, and University breadth crs.

Grade Mode
Numeric

PLAR Applicable
Yes

Total Hours
42

Course Description
There are numerous technology options to choose from when implementing an Artificial Intelligence (AI) system. Selecting the correct framework, architecture and supporting infrastructure play a key role in a successful implementation of an AI solution. Students evaluate different AI infrastructure and architecture options and learn how to make decisions around processing requirements, data capacity and network latency.

Course Content
- AI workstations
- AI servers
- Cloud AI
- Edge AI devices
- Embedded devices
- AI processing (CPU, GPU, ASIC)
- Storage solutions
- Networking
- AI benchmarking
- Capacity planning

Course Evaluation

The passing grade for this course is 60%, evaluation is comprised of:

- Assignments 60%
- Test(s) 40%

Tests/examinations/assignments must be written/submitted at the time specified. Requests for adjustments to that schedule must be made before the test/exam/assignment date to the faculty member. Failure to do so will result in a mark of "0", unless an illness/ emergency can be proven with appropriate documentation at no cost to the College.

Academic Appeal
Students at Georgian College can appeal the following:
· A mark on an assignment, test, examination or work-integrated learning term
· Missing or incorrect assessment information on a grade report and/or transcript
· A charge of academic misconduct
Note: Students cannot appeal a final grade. It is the academic work that is appealable leading to the final grade i.e. final test, exam or assignment.
Refer to Academic Regulations 9.2 Academic Appeal for further details.

To graduate from graduate certificate level programs, a student must attain a minimum of 60% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester. The passing weighted average for promotion through each semester and to graduate is 60%.

Course Learning Outcomes

Upon successful completion of this course, the student has reliably demonstrated the ability to:

1. identify an optimal Artificial Intelligence (AI) framework and/or methodology to solve a given challenge;

Evaluation

Introduced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

2. perform benchmarking and capacity planning of AI solutions;

Evaluation

Introduced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

2. evaluate different architecture models to build an optimal and/or cost-effective AI solution;

Evaluation

Introduced
Assessed

Upon successful completion of this course, the student has reliably demonstrated the ability to:

4. prepare a budget and implementation plan for an AI solution.

Evaluation

Introduced
Assessed

Key: 30161