BDAT 1002: DATA SYSTEMS ARCHITECTURE

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

Effective Term
Winter 2022

Full Course Title
Data Systems Architecture

Academic Level
Post Graduate

Subject Code
BDAT - PG Big Data Analytics

Course Number
1002

Grade Mode
Numeric

PLAR Applicable
No

Total Hours
42

Course Description
Data intensive applications present unique challenges for systems architects and require specialized technology solutions to support real time and deep data analytics. In this course, students learn how to install, configure and administer common architecture solutions that are used to manage scalable and reliable distributed systems in real time or near real-time.

Transfer Credit Course(s), can be used for credit towards this course
BDAT 1013 - Big Data Tools (ODE)

Course Content
- Hadoop Framework
- Hadoop Installation and Configuration
- Hadoop Distributed File System
- Scalability
- Structured and Unstructured Data
- Apache Hive Architecture
- MapReduce
- Sorting and Shuffling

Course Evaluation

The passing grade for this course is 60%, evaluation is comprised of:
- Assignments 40%
- Mid-Term Project 20%
- Group Final Project 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. describe the common systems architecture components used in big data analysis;

Evaluation

Introduced
Assessed

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

2. install and configure big data system architecture;

Evaluation

Introduced
Assessed

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

3. apply a modeling language to process data statements;

Evaluation

Introduced
Reinforced

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

4. utilize a data warehouse infrastructure to access information;

Evaluation

Introduced
Assessed

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

5. process data using a big data system;

Evaluation

Introduced
Assessed

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

6. employ environmentally sustainable practices within the field of data analytics.

Evaluation

Introduced
Reinforced

Key: 1540