

Approved By Associate Dean:

Jan 2, 2025

Signature

COURSE SECTION INFORMATION

Foundations of Data Management Applied A.I. Solutions Development

Note: All academic inquiries will be replied to within three business days.

COURSE DESCRIPTION:

This course will provide an introduction to data management principles. The focus of this course will be on the policies, standards, and processes of a data governance framework. Students will apply data management best practices in areas such as metadata, master data and data quality management, root cause analysis, process design, data modelling and design, data integrity, and data privacy.

COURSE OUTCOMES:

Upon successful completion of this course the students will have reliably demonstrated the ability to:

- 1. Explain the data management process in a data-driven organization.
- 2. Build a data governance framework for an organization.
- 3. Design a data architecture for efficient storage and operations.
- 4. Model and design the data required for a use-case.
- 5. Build data quality measures.

LIST OF TEXTBOOKS AND OTHER TEACHING AIDS:

Reference:

Recommended Resources:

COURSE DELIVERY MODE:

Refer to the topical outline table for the delivery mode.

Important Note on the Use of Generative AI:

Students must review the "Generative AI Usage Guidelines" document, available on D2L, or consult with the instructor for details on how generative AI tools may be used in this course.

Generally, use of AI is allowed and encouraged in most of the courses of this program, this include projects and assignments. However use of AI are not allowed in exams and quizzes unless specified otherwise by the instructor.

Students must consult their instructor when unsure.

Misuse of AI in assessments where it is not permitted or failure to adequately disclose its use will be treated as a violation of academic integrity. According to college policy, consequences may include failing the assignment or the course or more severe disciplinary actions. Students must also download the AI Usage Declaration form from D2L, complete it, and submit it with their assignments where AI use is permitted. Adherence to these guidelines is mandatory to maintain academic integrity.

Detailed Evaluation System

Assessment Tool:	Description:	Outcome(s) assessed:	EES assessed:	Date / Week:	Final Grade:
Participation	Attendance and in-class participation in various activities	1, 2, 3, 4, 5	1, 2, 4, 5, 6, 7, 8, 9, 10, 11	1 - 3	10
Lab Exercises 3 @ 10%	Group Assignment Hands-on exercises	1, 2, 3, 4, 5		1 - 3	30
Lab quizzes 5 @ 2%	Questions to evaluate students' pace on keeping up with the class			1-3	10
Project	Group Assignment			3	30

Presentation and/or Questionnaire	Project presentation and/or Q&A to evaluate the overall knowledge of the students	1, 2, 3, 4, 5	1,2,4,5,6,7,8,9, 10,11	3	20
				TOTAL	100%

GRADING SYSTEM the passing grade for this course is: <u>D (50%)</u>

A +	90- 100	4.0	B+	77-79	3.3	C+	67- 69	2.3	D+	57- 59	1.3	Below 50	F	0.0
Α	86-89	4.0	В	73-76	3.0	С	63- 66	2.0	D	50- 56	1.0			
Α-	80-85	3.7	B-	70-72	2.7	C-	60- 62	1.7						

Excerpt from the College Policy on Academic Dishonesty:

The *minimal* consequence for submitting a plagiarized, purchased, contracted, or in any manner inappropriately negotiated or falsified assignment, test, essay, project, or any evaluated material will be a grade of zero on that material.

To view George Brown College policies please go to www.georgebrown.ca/policies

Learning Schedule / Topical Outline (subject to change with notification)

TOPICAL OUTLINE:

Week	Topic Task	In-person / Online	Outcomes	Content / Activities	Resources
1	1	Monday Online	1, 2, 3	- Introduction to Data Management	Resource material available on Brightspace/D2L
1	2	Wednesday Online	1, 2, 3	- Data Governance	Resource material available on Brightspace/D2L
1	3	Friday In-person	1, 2, 3	Reference and Master DataManagementMetadata management	Resource material available on Brightspace/D2L
					Week 1 Tasks: Lab Exercise 1 Lab Quiz 1, 2

2	4	Monday In-person	1, 2, 3, 4	-	Data Architecture Data Modeling and Design	Resource material available on Brightspace/D2L
2	5	Wednesday Online	1, 2, 3, 4	-	Data Integration and Interoperability	Resource material available on Brightspace/D2L
2	6	Friday In-person	1, 2, 3, 4		Data Storage and Operations Data Virtualization architecture – Cloud Services	Resource material available on Brightspace/D2L
						Week 2 Tasks: Lab Exercise 2 Lab Quiz 3, 4

3	7	Monday In-person	1, 2, 3, 4, 5	- -	Data Quality Data Security	Resource material available on Brightspace/D2L
3	8	Wednesday Online	1, 2, 3, 4, 5	-	Document and Content Management Data Privacy	Resource material available on Brightspace/D2L
3	9	Friday In-person	1, 2, 3, 4, 5	-	Project Due Presentation and/or Questionnaire	Resource material available on Brightspace/D2L
						roject Due

Please note: this schedule may change as resources and circumstances require. For information on withdrawing from this course without academic penalty, please refer to the College Academic Calendar: http://www.georgebrown.ca/Admin/Registr/PSCal.aspx