UNIVERSITY OF TORONTO
SCHOOL OF CONTINUING STUDIES

COURSE OUTLINE

COURSE CODE: SCS 4096_001

COURSE TITLE: Foundations of Data Architecture & Governance

INSTRUCTOR: Chris Kemp, B.Sc (Hons.)

(905) 510-8845

chris.kemp@utoronto.ca

E-mail is preferred and usually responded to within a day, please phone for more urgent matters.

DATES:

January 22, 2024 to April 15, 2024

WEBINAR SCHEDULE:

Wednesday, January 24, from 6:00PM - 9:00PM

Wednesday, January 31, from 6:00PM - 9:00PM

Wednesday, February 7, from 6:00PM - 9:00PM

Wednesday, February 14, from 6:00PM - 9:00PM

Wednesday, February 21, from 6:00PM - 9:00PM

Wednesday, February 28, from 6:00PM - 9:00PM

Wednesday, March 6, from 6:00PM - 9:00PM

Wednesday, March 13, from 6:00PM - 9:00PM

Wednesday, March 20, from 6:00PM - 9:00PM

Wednesday, March 27, from 6:00PM - 9:00PM

Wednesday, April 3, from 6:00PM - 9:00PM

Wednesday, April 10, from 6:00PM - 9:00PM

REQUIRED TEXT(S): DAMA International (2017). *DAMA-DMBOK: Data Management Body of Knowledge: 2nd Edition*. Technics Publications. ISBN-10: 1634622340

PREREQUISITE(S)/ RECOMMENDATIONS: None

CERTIFICATE(S): None

COURSE DESCRIPTION:

Accelerate your career in data management with this overview course designed to help you align digital assets with organizational strategy. You'll learn the basics of data architecture, management, and governance and master the vocabulary used to design, execute, and communicate data strategy effectively. You'll acquire tools and skills to manage data responsibly and emerge ready to manage data assets through the lifecycle and take on larger, more strategic projects.

LEARNING OUTCOMES:

- Define guiding principles and best practices for data management and how these can be applied to functional areas and roles of data management.
- Explain how data modeling, storage, data mapping and lifecycle management allow organizations to best structure and store data with consistent processes.
- Discuss how integration and interoperability can be used to maintain privacy and confidentiality.
- Apply techniques related to master data, reference data, and metadata to utilize and organize different versions of data and descriptions of the data.
- Apply the foundations of data warehousing and business intelligence and analyze how staging and storing data can be used to present useful organizational insights.
- Explain how data quality and controls help an organization ensure that the data assets retain the highest quality and accuracy.
- Consider different data governance and security policies to provide ownership and oversight for an organization to manage data as an asset in a sustainable manner.

COURSE FORMAT:

Course Format	Definition
Online with Real Time Meetings	Instructor-led online learning that may include: • Synchronous learning activities such as webinars that are also recorded • Asynchronous learning activities • Peer to peer interaction, group work

	• Pre-defined schedule with firm start and end dates

COURSE PLAN:

MODULES	DATE	TOPIC	READINGS, ASSIGNMENTS, ACTIVITIES, ETC.
1	Jan 24	**General Course Information** Data Management & Data Architecture	DMBOK, 2nd. Ed., Chapter 1 ("Data Management", p. 17-48) Chapter 4 ("Data Architecture", p. 97-120)
2	Jan 31	Data Governance	Chapter 3 ("Data Governance", p. 67-96)
3	Feb 7	Data Modeling and Design	Chapter 5 ("Data Modeling & Design", p. 121-164)
4	Feb 14	Data Storage & Operations	Chapter 6 ("Data Storage & Operations", p. 165-208)
5	Feb 21	Data Security, Privacy, & Handling Ethics	Chapter 7 ("Data Security", p. 209-255) Chapter 2 ("Data Handling Ethics", p. 49-66)
6	Feb 28	Data Integration & Operability	Chapter 8 ("Data Integration & Operability", p. 257-286)
7	Mar 6	Document & Content Management **Case Study Assignment Distributed**	Chapter 9 ("Document and Content Management", p. 287-326) Case Study Assignment Handout
8	Mar 13	Reference & Master Data and Data Quality	Chapter 10 ("Reference and Master Data", p. 327-358) Chapter 13 ("Data Quality", p. 423-467)
9	Mar 20	Data Warehousing, Data Lakes, and Business Intelligence	Chapter 11 ("Data Warehousing and Business Intelligence", p. 359-391)
10	Mar 27	Metadata Management, Big Data, & Data Science	Chapter 12 ("Metadata Management", p. 393-421)

			Chapter 14 (“Big Data and Data Science”, p. 469-500)
11	Apr 3	Applied Data Architecture	DAMA-DMBOK 2nd ed. - chapter 15 (“Data Management Maturity Assessment”, p. 501-518) Chapter 16 (“Data Management Organization and Role Expectations”, p. 519-538) Chapter 17 (“Data Management Organizational Change Management”, p. 539-574) **Assignment Due Before Class**
12	Apr 10	Wrap-up **Final Exam**	

QUERCUS and ONLINE RESOURCES

Quercus is a learning management engine, and is the University of Toronto’s main online teaching and learning environment. It is web-based software which gives you and your instructor a shared learning space online to receive and exchange course content as well as to communicate using a range of tools. More information about online learning in Quercus can be found here: https://help.learn.utoronto.ca/hc/en-us/sections/115000462414-Online-learning-in-Quercus

GRADING AND EVALUATION:

Individual Case Study	50%
Final Exam	35%
Participation	15%

A note about Participation Marks:
Marks for participation are for filling out and submitting the weekly questionnaire in Quercus to give the instructor feedback on your experience (i.e. what you found the most useful/valuable, what was difficult to understand or confusing, and what you would change to improve the course.) Constructive contributions to class discussion and the Quercus discussion board are strongly encouraged, but not a part of the participation mark.

Learners can expect to receive feedback and marks, if applicable, before the course end date, for their submitted assignment(s) and test(s) other than the final exam, project or course paper. However, it is the sole responsibility of learners to make sure that they get these marks from their instructor and have all related questions answered before the course ends.

A note about Final Exams:

If you are unable to write it due to a scheduling conflict (e.g. medical, work conflicts, family emergencies) you can write an Alternate Examination at the next exam sitting. The Alternate Examination Application form is located here: http://learn.utoronto.ca/how-to-register/forms-applications. Please note there is a $150 fee associated with Alternate Examinations. It is the student's responsibility to download all course material from Quercus during the regularly scheduled course duration in the event they will need it for an alternate exam.

MISSED TEST/ASSIGNMENT GUIDELINES
If you miss a test or assignment, please work directly with your instructor to make alternate arrangements. There may be penalties for missed or late assignments and tests.

FINAL EXAM - ONLINE UNPROCTORED
Exams within this course will not be proctored and will be delivered fully online on Quercus. Refer to the course plan for dates and availability. Information about writing an exam online in Quercus can be found here: https://help.learn.utoronto.ca/hc/en-us/articles/360011214853-How-do-I-take-an-exam-in-Quercus-

SCS GRADING SCALE:

A 80% to 100% Excellent

B 70% to 79% Good

C 60% to 69% Adequate

D 50% to 59% Marginal

FX Less than 50%

INC Incomplete

DNW Did not write

FINAL GRADE:

To view your final grade, please login to "My Access – Student Login" at: https://learn.utoronto.ca/login. Please note that your final grade will not be posted on Quercus.

More information regarding Academic Policies and Guidelines is located here: https://help.learn.utoronto.ca/hc/en-us/sections/207314307-Academic-Policies-and-Guidelines

CODE OF STUDENT CONDUCT AND CODE OF BEHAVIOUR ON ACADEMIC MATTERS:

All School of Continuing Studies learners are required to comply with the University of Toronto Academic Policies including, but not limited to the Code of Student Conduct and the Code of Behaviour on Academic Matters.

Information regarding University of Toronto Academic Policies can be reviewed here: https://help.learn.utoronto.ca/hc/en-us/articles/235279047-Academic-Policies-and-Student-Code-of-Conduct

ACADEMIC HONESTY:

Course work that is not appropriately cited may be in violation of the Code of Behaviour on Academic Matters (see above).

For guidelines about plagiarism and properly citing your sources, please visit:

https://help.learn.utoronto.ca/hc/en-us/articles/115006427548-Academic-Honesty

AUDIO/VIDEO RECORDINGS:

You are not permitted to record lectures without the written consent of your instructor(s).

ACADEMIC ACCOMMODATIONS:

If you require accommodation for a disability, please contact Enrolment and Learner Services at 416-978-2400, email scs.accessibility@utoronto.ca or fill out the form at the following link to arrange this service. https://learn.utoronto.ca/help/forms-and-applications/accommodation-request-form