MIE 1505
ENTERPRISE MODELLING
2021

Instructor: Dr. M. Gruninger, BA8122, 416-946-8853, gruninger@mie.utoronto.ca
Times: TBD
Location: TBD

Prerequisite: A data modelling course

Course Description: To remain competitive, enterprises must become increasingly agile and integrated across their functions. Enterprise models play a critical role in this integration, enabling better designs for enterprises, analysis of their performance, and management of their operations. This course motivates the need for enterprise models and introduces the concepts of generic enterprise models and enterprise ontologies. It reviews research to date on enterprise modelling, including emerging standards and implementation technologies.

Project: Each student must complete a project of his or her choice (subject to the instructor’s approval). The project may consist of
- the design and evaluation of a new enterprise model in some domain;
- extension of existing enterprise models;
- analysis of existing enterprise models.

Grading:
- Research paper reviews: 20%
- Project: 80%

Deadlines.
- 9 February: Project proposals
- 16 February: Project progress reports
- 6 April: Project final reports
Course Outline

Week 1: Introduction to Enterprise Modelling. (5 January)

Week 2: UML: Use Cases and Class Diagrams. (12 January)

Week 3: UML: State Charts and Sequence Diagrams. (19 January)

Week 4: Introduction to SysML (Systems Modelling Language). (26 January)

Readings:

Week 5: IDEF. (2 February)

Readings:

Week 6: Process Modelling: IDEF3 and UML Activity Diagrams. (9 February)

Week 7: Project Progress Report Presentations. (23 February)

Week 8: Introduction to BPMN (Business Process Modelling Language). (2 March)

Week 9: BPMN. (9 March)

Week 10: Enterprise Modelling Ontologies. (16 March)

Readings:
Week 11: Model-Driven Architectures. (23 March)
Readings:

Week 12: Final Project Presentations. (30 March)

Week 13: Challenges in Enterprise Modelling. (6 April)