TEQSA ID PRV:14323
CRICOS Provider Code: 03866C

MIT503 SYSTEMS DEVELOPMENT

Unit Outline

Important Update:	Our aim is to provide you with an optimal learning experience, regardless of how this unit is delivered. Teaching will be delivered in line with the most current COVID Safe health guidelines. This may include a mix of online and face-to-face. Please check the learning management system for announcements and updates. Thank you for your flexibility and commitment to studying with Sydney Institute of Higher Education.
Enrolment Modes:	Year 1, Semester 1.
Credit Point(s):	12.5
EFTSL Value:	0.125
Prerequisites:	Nil.
Typical study commitment:	Students will on average spend 10 hours per week over the teaching period undertaking the teaching, learning and assessment activities for this unit.
Scheduled learning activities:	4 timetabled hours per week, 6 personal study hours per week.
Other resource requirements:	Students will need access to lab computers or will need their own laptops in order to carry out lab exercises and assignments. Students will need to use a UML Diagrams tool such as Lucidchart https://www.lucidchart.com/pages/) and a Project Management tool such as Google Sheets https://www.google.com/sheets/about/) or Microsoft Excel.

Unit description

This unit introduces the techniques, tools, and models for developing information systems. It aims to develop analytical skills for Systems Development Life Cycle (SDLC) including systems requirements analysis, problem identification, feasibility analysis, data modelling, use case analysis and design models. Unified Modelling Language (UML) is explored, and different analysis and design techniques are examined such as structured and object-oriented design methods and tools. Project management techniques and tools for information systems are also studied.

Unit learning outcomes (ULO)

	On the successful completion of this unit student will be able to:
ULO1	Understand and describe various phases of Systems Development Life Cycle (SDLC).
ULO2	Demonstrate knowledge of analysing and designing information systems.
ULO3	Develop skills to solve business problems.
ULO4	Apply appropriate models and techniques to solve business problems.
ULO5	Create reports to analyse a problem and design an appropriate solution.

Topics to be included in the unit

1.	System Development Life cycle (SDLC)
2.	Investigating systems requirements
3.	User stories and identifying use cases
4.	UML domain model class diagram and entity-relationship diagram
5.	UML activity diagram, system sequence diagram, and state machine diagram
6.	Systems design foundations
7.	System architecture
8.	User interface design
9.	Structured and object-oriented analysis and design
10.	Project planning and project management
11.	Project management techniques and tools
12.	Current trends and unit review

Assessment

Assessment Description	**Grading and weighting (% total mark for unit)**	**Due date**
Assessment 1: Class Participation	10%	Weeks 1-12
Assessment 2: Online Quiz	10%	Week 5
Assessment 3: Case Study 1 - Requirements Analysis (Group)	25%	Week 6
Assessment 4: Case Study 2 - Modelling	25%	Week 12
Assessment 5: Final Exam	30%	Final exam week