UNIVERSITI TEKNOLOGI MARA
ASM653: SYSTEMS DESIGN AND DEVELOPMENT

Course Name (English)	SYSTEMS DESIGN AND DEVELOPMENT `APPROVED`
Course Code	ASM653

MQF Credit	3

Course Description	The focus of the course is the study of office systems, and the principles of systems analysis and design. Students will analyze office system requirements, propose system solutions and build an office system that meets an organization's needs. In addition, students will also investigate implementation and evaluation issues pertaining to standard project methodology. The course also emphasizes on various standard project methodologies and systems concepts.

Transferable Skills	Demonstrate ability to apply creative, imaginative and innovative thinking and ideas to problem solving. Demonstrate analytical skills using technology. Demonstrate ability to investigate problems and provide effective solutions.

Teaching Methodologies	Lectures, Blended Learning, Lab Work, Web Based Learning

CLO		
	CLO1	Explain the concept of planning, analysis and design of information system software
	CLO2	Assess the methodology and life cycle of system development and the related issues
	CLO3	Design and develop information system software

Pre-Requisite Courses	No course recommendations

Topics
1. 1 The Systems Development Environment 1.1) 1.1 Introduction 1.2) 1.2 A Modern Approach to Systems Analysis and Design 1.3) 1.3 Types of IS and Systems Development 1.4) 1.4 Developing IS and the Systems Development Life Cycle
2. 2 The Origins of Software 2.1) 2.1 Introduction 2.2) 2.2 Systems Acquisition 2.3) 2.3 Reuse
3. 3 Identifying and Selecting Systems Development Projects 3.1) 3.1 Introduction 3.2) 3.2 Identifying and Selecting Systems Development Projects 3.3) 3.3 Corporate and Information Systems Planning
4. 4 Initiating and Planning Systems Development Projects 4.1) 4.1 Introduction 4.2) 4.2 The Process of Initiating and Planning Systems Development Projects 4.3) 4.3 Assessing Project Feasibility 4.4) 4.4 Building and Reviewing the Baseline Project Plan

5. 5 Determining System Requirements
5.1) 5.1 Performing Requirements Determination
5.2) 5.2 Requirement Determination Methods
5.3) 5.2.1 Traditional
5.4) 5.2.2 Contemporary
5.5) 5.2.3 Radical
5.6) 5.2.4 Agile

6. 6 Structuring System Process Requirements
6.1) 6.1 Introduction
6.2) 6.2 Logic Modeling: Object-Oriented Approach (Use Case Diagram & Decision Table)

7. 7 Forms and Reports Design
7.1) 7.1 Introduction
7.2) 7.2 Formatting Forms and Reports
7.3) 7.3 Assessing Usability

8. 8 Interfaces and Dialogue Design
8.1) 8.1 Introduction
8.2) 8.2 Interaction Methods and Devices
8.3) 8.3 Designing Interfaces and Dialogues
8.4) 8.4 Designing Interfaces and
8.5) 8.5 Dialogues in Graphical Environment

9. 9 Systems Implementation
9.1) 9.1 Introduction
9.2) 9.2 Software Application Testing
9.3) 9.3 Installation
9.4) 9.4 Documenting the System
9.5) 9.5 Training and Supporting Users
9.6) 9.6 Project Closedown

10. 10 Systems Maintenance
10.1) 10.1 Introduction
10.2) 10.2 Maintaining IS
10.3) 10.3 Conducting System Maintenance

Assessment Breakdown	%
Continuous Assessment	60.00%
Final Assessment	40.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment 1 - Role play (e.g. JAD session during requirements determination in Topic 5)	10%	CLO1
	Assignment	Assignment 2 - based on Topic 6: Structuring System Logic Requirements. There are 2 questions. The students need to construct Logic Modeling: Object-Oriented Approach (Use Case Diagram & Decision Table).	10%	CLO2
	Group Project	It is a group project which consists of 6 to 8 students per group. Objective of the project is to apply theories and methodologies that relate to information systems analysis and design. Each group must produce a compilation of project work. Students will be evaluated based on a standard evaluation: - Project proposal : 5% - Final Report : 10% - Presentation : 15% : - Prototype : 10% - Student presentation : 5%	30%	CLO3
	Test	ONE test related to the concept of computer, communication and security require students to gain knowledge.	10%	CLO2

Reading List	Recommended Text	• Joseph S. Valacich, Joey F. George 2017, *Modern Systems Analysis and Design*, 8th Edition Ed., Pearson England [ISBN: 1-292-15414-4]
	Reference Book Resources	• Connolly, T. & Begg C. 2010, *Database Systems. A Practical Approach to Design, Implementation and Management*, 5th Edition Ed., Addison Wesley
		• Harris 2009, *Essentials of Systems Analysis and Design.*, 4th Edition Ed., Prentice Hall
		• Kendall et al. 2010, *Systems Analysis and Design*, 8th Edition Ed., Prentice Hall
		• Shelly et al. 2010, *Systems Analysis and Design Methods*, 8th Edition Ed., Cengage Learning
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	