MULTIMEDIA UNIVERSITY®

COURSE INFORMATION

1 .	**Name of Course**	Systems Analysis and Design
2 .	**Course Code**	DCS5128
3 .	**Type of Course** **(e.g. : Core, major, elective etc.)**	Core/Major
4 .	**Synopsis**	This course introduces the skills and knowledge for a students to determine client business requirements and to support a project team in the analysis and redesign of systems to ensure they meet client needs. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.
5 .	**Version** **(State the date of theSenate's approval - previous and the current approval date)**	Current: Senate Jan 2018 Previous: ADC June 2017
6 .	**Name(s) of Academic Staff**	Rashidah Ahmad, Julie Yew, Norihan Hamzah
7 .	**Semester and Year Offered**	Trimester 3 Year 1
8 .	**Credit Value**	3
9 .	**Pre-Requisite**	-
10 .	**Objective of the course in the programme:** To provide students with concepts and skills needed to analyse and design information systems covering major steps of a complete system development life cycle.	
11 .	**Justification for including the course in the programme:** This subject focusses on various processes involved in developing new and existing information systems. All these processes require a unique set of skills and knowledge of both the technical and business domains. Relevant to the program, this subject provides students with an understanding of various approaches for information systems development; and in-depth knowledge and experience with the requirements analysis, modelling aspects and system design.	
14 .	**Transferable Skills:** Problem solving and communication skills.	

15 . **Distribution of Student Learning Time (SLT)**

Course Content Outline	**CLO	Teaching and Learning Activities – Guided Learning (F2F)* *L	*T	*P	*O	Guided Learning (NF2F)*	Independent Learning (NF2F)*	Total SLT
1 Chapter 1: The Systems Development Environment Introduction to system development environment: Systems development life cycle (SDLC), Modern approaches in system development: CASE Tools, Rapid Application Design (RAD), Prototyping, Service-Oriented Architecture (SOA), Agile Methodologies: eXtreme Programming and OO analysis and design.	**CLO 1, CLO 2, CLO 3**	1	1				2	4
2 Chapter 2: The Origins of Software Outsourcing and 6 sources of software: IT Services Firms, Packaged Software Providers, ERP providers, Cloud-computing, Open source and In-house development. Evaluate off-the-shelf software.	**CLO 1, CLO 2, CLO 3**	1	1				2	4
3 Chapter 3: Managing the Information Systems Project Managing IS Project – the 4 steps, Project Manager skills, Scheduling project plan technique: Gantt chart, PERT chart and network diagram, software packages to assist project scheduling.	**CLO 1, CLO 2, CLO 3**	3	2				5	10
4 Chapter 4 – Identifying and Selecting Systems Development Projects Three activities of identifying and selecting IS project, Techniques in evaluate and compare projects (Project evaluation criteria, Value-chain analysis), Corporate strategic planning, IS planning.	**CLO 1, CLO 2, CLO 3**	2	1				3	6
5 Chapter 5 – Initiation and Planning Systems Development Projects Steps in project initiation and planning, Assessing Project Feasibility (cost-benefit analysis), Technical risks, Structured walkthrough.	**CLO 1, CLO 2, CLO 3**	2	1			1	4	8

6	**Chapter 6 – Determining and Structuring System Requirements** Traditional methods for determining requirements: Interview, Observation, Analysing procedures and documents. Contemporary methods: JAD session, Using prototyping, Business process reengineering (BPR). Process modelling (CD, DFD), Logic Modelling (Decision Table and tree), Data modelling (ERD), Intro to Use-case diagrams.	**CLO 1, CLO 2, CLO 3**	7	4			1	12	24
7	**Chapter 7 – Design: Database, Forms and Reports, Interface and Dialogue.** Relational database model, Guidelines for designing forms and reports, Interaction methods, Guidelines for designing interfaces and dialogues.	**CLO 1, CLO 2, CLO 3**	6	1				7	14
8	**Chapter 8: Implementation and Maintenance** Process of Coding, Types of Testing, Types of Installation, Documenting the system, Training and Supporting Users, Process of Maintenance and Four types of Maintenance.	**CLO 1, CLO 2, CLO 3**	3	1			1	5	10
								Total SLT	**80**

SUMMATIVE ASSESSMENT

1. Continuous Assessment	**Percentage %**	**Total SLT**
Tutorial	10%	4
Midterm	15%	6
Quiz	10%	4
Project	15%	8
Total SLT for Continuous Assessment		**22**

2. Final Assessment	**Percentage %**	**Total SLT**	
		F2F	**ILT**
Final Exam	50%	2	16
Total SLT for Final Assessment (F2F + NF2F)		**18**	
Grand Total	**100%**	**120**	

****Indicate the CLO based on the CLO's numbering in Item 12.**
***L= Lecture, *T= Tutorial, *P= Practical, *O= Others, F2F*= Face to Face, NF2F*= Non Face to Face**

16 . **Identify Special Requirement to Deliver the Course (e.g., software, nursery, computer lab, simulation room):**

17 . **Main References:**

Hoffer, Jeffrey A., George, Joey F., Valacich, Joseph S., "Modern Systems Analysis and Design, 8th Edition, Prentice Hall, 2017

18 . **Additional References:**

Kendall & Kendall, System Analysis and Design, 9th Edition, Prentice Hall, 2014
J. Rosenblatt and Thomas J. Cashman, System Analysis and Design, International Edition, 10th Edition, Course Technology Cengage Learning, 2014
Roberta M. Roth, Alan Dennis, Barbara Haley Wixom, System Analysis and Design, International Student Version, 6th Edition, Wiley, 2014.