MULTIMEDIA UNIVERSITY®

COURSE INFORMATION

1 .	**Name of Course**	Systems Analysis and Design
2 .	**Course Code**	TSE2251
3 .	**Type of Course** **(e.g. : Core, major, elective etc.)**	Specialization Elective for BCS (IS) and Elective for all other specializations
4 .	**Synopsis**	1. System Development approach and steps: This part will describe various methods such as traditional system development life cycle, prototypind, RAD and eXtreme programming. The analysis phase will include methods for requirements determination, process modeling, logic modeling and data modeling. The design phase will comprise the designing databases, user interfaces, forms and reports. 2. Implementation and maintanence: Describe the process of coding, testing, and system conversion. Prepare a test plan for an information system, Installation strategies. Key activities in the maintenance phase, types of maintanence, factors affecting the maintainability are described.
5 .	**Version** **(State the date of theSenate's approval - previous and the current approval date)**	Current: January 2018 Previous: June 2016
6 .	**Name(s) of Academic Staff**	Chikkannan Eswaran, Ho Chiung Ching, Goh Hui Ngo
7 .	**Semester and Year Offered**	Trimester 2 (Gamma level); Trimester 1 (Delta Level)
8 .	**Credit Value**	4 credit hours
9 .	**Pre-Requisite**	Nil

10 . **Objective of the course in the programme:**

To equip students with concepts and skills needed to analyze and design information systems covering major steps of a complete system development life cycle.

11 . **Justification for including the course in the programme:**

To provide students with general knowledge on information systems development.

12 . **Course Learning Outcomes (CLO)**

		Domain	Level
CLO1:	Identify the activities involved in developing information systems.	Cognitive	2
CLO2:	Apply the different information requirements gathering and feasibility analysis techniques.	Cognitive	3
CLO3:	Produce process, logical, and data models to represent information requirements collected.	Cognitive	3
CLO4:	Produce effective design specification with focus on system architecture, input/output design, user and system documentation.	Cognitive	3

13 . **Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment:**

Course Learning Outcomes (CLO) (Must tally with CLOs in item 12)	Programme Learning Outcomes (PLO)												Teaching Methods	Assessment Method
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12		
CLO1							✓						Lecture/Practical	Quizzes/Test/Final Exam
CLO2								✓	✓				Lecture/Practical	Assignment
CLO3								✓	✓				Lecture/Practical	Assignment/Quizzes/Test/Final Exam
CLO4								✓	✓				Lecture/Practical	Assignment/Test/Final Exam
Total							**1**	**3**	**3**				*Indicate the relevancy between the CLO and PLO by ticking "✓" the appropriate relevant box (This description must be read together with standards 2.1.2, 2.2.1, and 2.2.2 in Area 2 – pages 16 & 18 of COPPA 2.0)*	

14 . **Transferable Skills:**

- Team leadership
- Design skills
- Analysis

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 **Fundamentals for Systems Development** Assuming the Role of a Systems Analyst, Understanding Organizational Style and Its Impact on Information Systems, Determining Feasibility and Managing.	**1**	4		4			8	16
2 **Information Requirements Analysis** Information Gathering: Interactive Methods, Information Gathering: Unobtrusive Methods, Prototyping, RAD and Extreme Programming	**2**	4		4		8	8	24
3 **The Analysis Process** Using Data Flow Diagrams, Analyzing Systems Using Data Dictionaries, Describing Process Specifications and Structured Decisions, Preparing Systems Proposal	**3**	6		6			12	24
4 **Essentials of Design** Designing Effective Output, Designing Effective Input, Designing Databases, Designing User Interfaces	**4**	6		6			12	24
5 **Implementation and Maintenance** Describe the process of coding, testing, and system conversion. Prepare a test plan for an information system, Installation strategies.	**3**	4		4			8	16

6	**Analysis and Design Realization** A discussion on developing an example application using the systems analysis and design techniques.	**4**	2		2			4	8
								Total SLT	**112**

SUMMATIVE ASSESSMENT

1. Continuous Assessment	**Percentage %**	**Total SLT**
Assignment	20%	12
Quizzes	10%	4
Test	20%	10
Total SLT for Continuous Assessment		**26**

2. Final Assessment	**Percentage %**	**Total SLT**	
		F2F	**ILT**
Final Exam	50%	2	20
Total SLT for Final Assessment (F2F + NF2F)		**22**	
Grand Total	**100%**	**160**	

****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:**
Jeffrey A. Hoffer, Joey F. George, and Joseph .S. Valacich, Modern Systems Analysis and Design, Pearson, sixth Edition, 2011.

18 . **Additional References:**
John W. Satzinger, Robert L. Jackson, and Stephen D. Burd, Systems Analysis and Design in a Changing World, Course Technology, First Edition, 2008.

Note:
Cells shaded light grey contain formulas / fixed values. Edit these formulas only if needed.