MULTIMEDIA UNIVERSITY®

COURSE INFORMATION

1 .	**Name of Course**	Software Requirements Engineering
2 .	**Course Code**	TSE2451
3 .	**Type of Course** **(e.g. : Core, major, elective etc.)**	Specialization Core for B.CS (SE)
4 .	**Synopsis**	Software requirements engineering is a critical success factor for each software development project. This course provides a comprehensive requirements engineering framework.
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**	Chan Gaik Yee, Ho Sin Ban, Khairi Shazwan Dollmat, Lim Tek Yong, Nor'ain Mohd Yusoff, Zarina Che Embi
7 .	**Semester and Year Offered**	Semester 2, Year 2
8 .	**Credit Value**	4
9 .	**Pre-Requisite**	TSE2101 Software Engineering Fundamentals

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

To equip students with knowledge and skills of software requirements engineering framework covering context, requirements artifacts, core-activities and cross-sectional activities.

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

To provide students with fundamental knowledge of requirements engineering in order to document the relevant requirements in a systematic approach.

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

		Domain	Level
CLO1:	Comprehend requirements engineering framework.	Cognitive	2
CLO2:	Apply requirements elicitation techniques and documentation guidelines in preparation of requirements specification.	Cognitive	3
CLO3:	Manage requirements change based on the outcome of requirements validation and negotiation.	Cognitive	6

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						
CLO1							✓						Lecture	Test
CLO2								✓					Tutorial	Project Part 1
CLO3:								✓					Tutorial	Project Part 2
Total							**1**	**2**					*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:**

Problem Solving Skills

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

	Course Content Outline	****CLO**	**Teaching and Learning Activities**				**Guided Learning (NF2F)***	**Independent Learning (NF2F)***	**Total SLT**
			Guided Learning (F2F)*						
			***L**	***T**	***P**	***O**			
1	**Introduction to Requirements Engineering and Context** Introduction to the importance of conducting proper software requirements engineering. Definitions of requirements. Framework for Requirements Engineering. System, System Context and Boundaries. Development Context. Requirements Engineering Context.	**1, 2, 3**	4	2			4	6	16
2	**Core Activities** Requirements Sources. Requirements Categorisation according to the Kano Model. Elicitation techniques. Document Design. Documentation Types. Document Structures. Use of Requirements Documents. Quality Criteria for the Requirements Document. Quality Criteria for Requirements. Glossary. Language Effects. Requirements Construction using Templates. Fundamentals of Requirements Negotiation.	**1, 2, 3**	8	6			4	14	32
3	**Requirements Artifacts** Goal Models. Use Cases. Three perspectives on Requirements. Data Modelling. Functional Modelling. Behavioural Modelling. Scenarios. Solution-oriented Requirements. Conceptual Modelling.	**1, 2, 3**	10	6			8	16	40
4	**Cross-sectional Activities** Fundamentals of Requirements Validation. Checking Requirements Quality. Principles of Requirements Validation. Techniques for Requirements Validation. Assigning Attributes to Requirements, Views on Requirements, Prioritising Requirements, Requirements Traceability, Versioning of Requirements, Management of Requirements Changes.	**1, 2, 3**	6	6				12	24
								Total SLT	**112**

SUMMATIVE ASSESSMENT

1. Continuous Assessment	**Percentage %**	**Total SLT**

	Project Part 1	35%	21	
	Project Part 2	35%	21	
	Test	30%	6	
	Total SLT for Continuous Assessment		48	
	2. Final Assessment	Percentage %	Total SLT	
			F2F	ILT
	Total SLT for Final Assessment (F2F + NF2F)		0	
	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): Computer lab			
17 .	Main References: Klaus Pohl (2010) Requirements Engineering: Fundamentals, Principles, and Techniques, Springer.			
18 .	Additional References: Klaus Pohl and Chris Rupp (2015) Requirements Engineering Fundamentals: A Study Guide for the Certified Professional for Requirements Engineering Exam - Foundation Level - IREB compliant, (2nd Edition), Rocky Nook Computing. Phillip A. Laplante (2013) Requirements Engineering for Software and Systems, 2nd Edition, Auerbach Publications.			

Note:

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