COURSE OUTLINE

Department/ Faculty:	Information Systems, Faculty of Computing	**Page:**	1 of 5	
Course code:	SCSD 2613	**Academic Session/Semester:**		20182019/1
Course name:	System Analysis & Design	**Pre/co requisite (course name and code, if applicable):**		-
Credit hours:	3			

Course synopsis	The main focus of this course is to provide a practical approach of systems analysis and designing skills for the students using structured methodology. Hence the course enables students to study information system requirements for any system application within an organizational context. The contents are sequentially organized directly from planning, analysis, designing and implementation phases. From the resulting output of the planning and analysis phase shall enable students to form input, output and interface design. Hence a prototype design can be demonstrated.			
Course coordinator (if applicable)				
Course lecturer(s)	**Name**	**Office**	**Tel (07-55)**	**E-mail (@utm.my)**
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Mapping of the Course Learning Outcomes (CLO) to the Programme Learning Outcomes (PLO), Teaching & Learning (T&L) methods and Assessment methods:

No.	CLO	PLO (ICGPA CODE)	Weight (%)	*Taxonomies and **generic skills	T&L methods	***Assessment methods
CLO1	Apply the concepts of system development life cycle in an information systems project.	PLO1 (KW)	25	C3	Lecture, active learning	HW, T, F
CLO2	Identify problems and requirements of an information system based on real-world case study.	PLO2 (A) PO7 (TW)	30 5	P3 TW1,TW2	Project-based learning	T, F
CLO3	Construct analysis & design phase based on requirement in real-world case study using structured methodology.	PLO3 (PS) PO7 (TW)	22 10	P4, A5 TW1,TW2	Project-based learning	F, GR
CLO4	Demonstrate the prototype design of an information system project.	PLO3 (PS) PO7 (TW)	3 5	C5 TW1,TW2	Project-based learning	GR

Refer *Taxonomies of Learning and **UTM's Graduate Attributes, where applicable for measurement of outcomes achievement
***T – Test; Q – Quiz; HW – Homework; L – Lab, GR – Group Project; PR – Personal Report; F – Final Exam etc.

Prepared by:	Certified by:
Name: Dr. Norasnita binti Ahmad (Course Owner)	Name: PM. Dr. Roliana binti Ibrahim (Head of Department)
Signature:	Signature:
Date: 23 August 2017	Date:

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Details on Innovative T&L practices:

No.	Type	Implementation
1.	Active learning	Conducted through in-class activities
2.	Project-based learning	Conducted through case study project. Tasks are given in sequential steps throughout the semester. Students in a group of 3/4 are require demonstrating the prototype design based on analysis and design method using structured methodology approach. The report must comply to the case study be given in the form of written report.

Weekly Schedule:

Week	Module	Activity
Week 1 10/9	**PART I SYSTEMS ANALYSIS FUNDAMENTAL** • Organizational impact on Information System • Types of Information Systems • Systems analyst role • Types, trend and approach towards developing information system	
Week 2 17/9	**PART II PROJECT PLANNING PROCESS** • Project Feasibility Studies • Project Management Overview • Project Initiation • Scope definition and Work Break Down Structure • Project schedules and scheduling techniques (Gantt Chart, PERT Chart)	
Week 3 24/9	• Basic principles of project cost management (CBA)	P1- Project Proposal & Planning
Week 4 1/10	**PART III INFORMATION REQUIREMENT TASK** • Information Gathering – Interactive Methods • Information Gathering – Unobtrusive Methods	
Week 5 8/10	**PART IV THE ANALYSIS PROCESS** • Systems Analysis Tools & Techniques • Introduction to Data Flow Diagrams (DFD)	P2- IS Gath & Requirement
Week 6 15/10	**MID-SEMESTER BREAK**	
Week 7 22/10	**PART IV THE ANALYSIS PROCESS (continue)** • Design logical DFD of current system	**MID TERM 27/10/2017 9-11 am**
Week 8 29/10	• Design logical DFD of To-Be system	

Week 9 5/11	**PART IV THE ANALYSIS PROCESS (continue)** • Design physical DFD	DROP 2/11
Week 10 12/11	• Design logical DFD of To-Be system • Design physical DFD	
Week 11 19/11	• Describing Process Spec (decision trees, table, structure English)	P3- System Analysis & Design
Week 12 26/11	**PART V THE DESIGN TASK** • Design Structure Chart	
Week 13 3/12	• Designing User Interfaces • Designing Effective Output • Designing Effective Input • Design data storage	
Week 14 10/12	**PART VI SYSTEMS IMPLEMENTATION** • User Testing and acceptance test • Training plan & strategies • Implementation plan & strategies	
Week 15 17/12	• Project assessment and group presentation	P4- Prototype System Design

Transferable skills (generic skills learned in course of study which can be useful and utilised in other settings):

Team working, Writing technical report

Student learning time (SLT) details:

Distribution of student Learning Time (SLT) Course content outline	Guided Learning (Face to Face)				Teaching and Learning Activities: Guided Learning Non-Face to Face	Teaching and Learning Activities: Independent Learning Non-Face to face	TOTAL SLT
CLO	**L**	**T**	**P**	**O**			
CLO1	10h					17	27h
CLO2	8h	2h	5h		5	19.5	39.5
CLO3	7h	2h	6h		5	17.4	37.4
CLO4	1h		1h			7.6	9.6
Total SLT	**26h**	**4h**	**12h**		**10h**	**61.5h**	**113.5h**

Continuous Assessment		PLO	Percentage	Total SLT
1	Assignment	KW	5	**1h**
2	Mid-Term Exam	KW	10	**2h30m**
		A	10	
3	Group Project	PS	20	As in CLO3,

				CLO4
		TW	20	
Final Assessment			Percentage	Total SLT
1	Final Examination	KW	10	**3h**
		A	20	
		PS	5	
Grand Total SLT				**120h**

Special requirement to deliver the course (e.g: software, nursery, computer lab, simulation room):

Computer Lab

Learning resources:

Main references

Kendall & Kendall. (2014). *System Analysis & Design*, 9th edition, Essex: Pearson Education Limited.

Additional references

Valacich, George & Hoffer (2012).*Essentials of Sstems Analysis & design*, 5th Edition, Essex: Pearson Education Limited.

Online

http://elearning.utm.my

Academic honesty and plagiarism:

Assignments are individual tasks and NOT group activities (UNLESS EXPLICITLY INDICATED AS GROUP ACTIVITIES) Copying of work (texts, lab results etc.) from other students/groups or from other sources is not allowed. Brief quotations are allowed and then only if indicated as such. Existing texts should be reformulated with your own words used to explain what you have read. It is not acceptable to retype existing texts and just acknowledge the source as a reference. Be warned: students who submit copied work will obtain a mark of **zero** for the assignment and exams and disciplinary steps may be taken by the Faculty. It is also unacceptable to do somebody else's work, to lend your work to them or to make your work available to them to copy.

Other additional information (Course policy, any specific instruction etc.):

1. Attendance is compulsory and will be taken in every lecture session. Student with less than 80% of total attendance is not allowed to sit for final exam.
2. Students are required to behave and follow the University's dressing regulation and etiquette all the time.
3. Exercises and tutorial will be given in class and some may be taken for assessment. Students who do not do the exercise will lose the coursework marks for the exercise.
4. Assignments must be submitted on the due dates. Some points will be deducted for late submissions. Assignments submitted three days after the due date will not be accepted.
5. Make up exam will not be given, except to students who are sick and submit medical certificate confirmed by UTM panel doctors. Make up exam can only be given within one week of the initial date of exam.

	Program Learning Outcome	**PO1**	**PO2**	**PO3**		**PO7**			
	Course Learning Outcome	CO1	CO2	CO3	CO4	CO2	CO3	CO4	**Total (%)**
1	Assignment (PR)	5							**5**
2	PROJECT (P1-P4):								**40**
	P1- Project Proposal & Planning			5		5			
	P2- IS Gath & Requirement			5			5		
	P3- System Analysis & Design			4	3			5	
	P4- Prototype System Design			3			5		
3	Mid-Term Exam	10	10						**20**
4	Final Exam	10	20	5					**35**
	TOTAL (%)	**25**	**30**	**22**	**3**	**5**	**10**	**5**	**100**