

1.	Name of Course/Module	Systems Analysis and Design
2.	Course Code	TIS 2211
3.	Status of Subject	Core for B. Sc Medical information technology
4.	MQF Level/Stage	Bachelor Degree – MQF Level 6
5.	Version (state the date of the last Senate approval)	August 2011
6.	Requirement for Registration	Database Systems (TDB 2111)
7.	Name(s) of academic/teaching staff	Liew Tze Hui Goh Kah Ong Michael Dr. Ong Thian Song
8.	Semester and Year offered	Trimester 1 (Gamma level)
9.	Objective of the course/module in the programme :	
	To provide students with concepts and skills needed to analyze and design information systems covering major steps of a complete system development life cycle.	
10.	Learning Outcomes :	
	At the completion of the subject, students should be able to:	
	LO1: Define the processes/ phases that carry out in system analysis and design (SAD) (Cognitive, Level 1).	
	LO2: Explain the structured work and processes in planning, analysis, design and implementation (Cognitive, Level 4).	
	LO3: Apply the techniques and methods used in system development environment (Cognitive, Level 3).	
	LO4: Create documentation for software project that used the SAD practices (Cognitive, Level 6).	
11.	Synopsis:	
	The subject describes the concepts and skills needed to analyze and design information systems covering major steps of a complete systems development life cycle.	
	Subjek ini menerangkan konsep and kemahiran yang diperlukan untuk menganalisis dan rekabentuk sistem maklumat yang merangkumi fasa-fasa kitar hayat pembangunan sistem	
12.	Mapping of Subject to Programme Outcomes :	
	Programme Outcomes	<b>% of Contribution</b>
	PO1: Apply soft skills in work and career related activities	27.27
	PO2: Demonstrate knowledge and understanding of fundamental concepts, principles and best practices	18.18
	PO3: Analyse the requirements to address problems or opportunities in relevant domains or organisations	36.36
	PO5: Blend innovative mind and entrepreneurial skills	18.18

13.	Assessment Methods and Types :		
	Method and Type	Description/Details	Percentage
	Test	Written Exam	20%
	Project	Report	15%
	Quiz	Written Exam	5%
	Final Exam	Written Exam	60%
14.	Details of Subject		
	Topics	Mode of Delivery	
		Lecture	Tutorial
	<b>1. Foundation for Systems Development</b> The system development environment. The origins of software, managing the information systems project, determining feasibility and managing analysis and design activities	4	2
	<b>2. Information Requirements and Planning</b> Information gathering, identifying and selecting systems development projects, initiating and planning systems development projects, assessing project feasibility, determining project benefits and costs	6	3
	<b>3. Analysis Process</b> Determining system requirements, structuring system process requirements, using data flow diagrams, structuring system logic requirements, structuring system data requirement, conceptual data modeling and E-R model, business rules	8	4
	<b>4. Design Phase</b> Designing databases, designing forms and reports, designing interfaces and dialogues, finalizing design specifications, designing distributed and internet systems	6	3
	<b>5. Implementation and Maintenance</b> System implementation, software application testing, documenting the system, maintaining information systems, conducting systems maintenance	4	2
<b>Total</b>	<b>28</b>	<b>14</b>	
15.	Laboratory		
	<ul style="list-style-type: none"> <li>• Descriptions of Systems Development</li> <li>• Descriptions of Information Requirements Analysis and Planning</li> <li>• Implementation using data flow diagrams, conceptual modeling and E-R model</li> <li>• Designing databases, forms, reports and interfaces</li> <li>• Implementation of system documentation and maintenance</li> </ul>		
16.	Total Student Learning Time (SLT)	Face to Face (Hour)	Total Guided and Independent Learning
	Lecture	28	28
	Tutorials	14	14
	Laboratory/Practical		
	Presentation		
	Project	-	10
	Mid Term Test	1	5

	Final Exam	2	20
	Quizzes	2 times	2
	Sub Total	45	79
	Total SLT	124/40 = 3.1 => 3	
17.	Credit Value	3	
18.	Reading Materials :		
	Textbook	Reference Materials	
	1. J.A Hoffer, J.F. George, & J.S. Valacich, "Modern Systems Analysis and Design", 5/E, Prentice Hall, 2007, ISBN: 0132240769.	1. Kendall & Kendall, "System Analysis and Design", 7/E, Prentice Hall, 2010. ISBN: 013608916X. 2. Whitten & Bentley, "System Analysis and Design Methods", 7/E, Irwin Publishing, 2007, ISBN: 0073052337.	
2.	Appendix (to be compiled when submitting the complete syllabus for the programme) :		
	<ol style="list-style-type: none"> <li>1. Mission and Vision of the University and Faculty</li> <li>2. Mapping of Programme Objectives to Vision and Mission of Faculty and University</li> <li>3. Mapping of Programme Outcome to Programme Objectives</li> <li>4. Programme Objective and Outcomes (Measurement and Descriptions)</li> </ol>		