

COURSE OUTLINE FRSI 1013 PQI

NO	UTM Razak School in Engineering and Advanced Technology							Page : 1 of 3		
1	Name of Course Process and Quality Improvement									
2	Course Code FRSI 1013									
3	Name(s) of academic staff: Prof. Dr. Nooh b. Abu Bakar e mail: noohab@ic.utm.my									
4	Rationale for the inclusion of the course in the programme To expose students with quality principles, techniques and practices in meeting organizational objectives. The course is useful for reinforcing quality competencies and satisfies section 6.2 Resource Management requirements for the ISO 9001:2008 Standard.									
5	Semester and Year offered Sem 2, Year 2									
6	Total Student Learning Time (SLT)									
	Total Student Learning Time (SLT)			Face to Face (20h)			Independent Learning		Total SLT	
	L=Lecture T=Tutorial P=Presentation O1=Test LS=Literature Search O2=Others (Revision and Report)			L 12	T	P 5	O1 4	LS 39	O2 60	120 hours
7	Credit Value : 3									
8	Prerequisite (if any): Nil									
9	Learning outcomes By the end of the course, students should be able to:									
	No.	Course Learning Outcome	Program Learning Outcome	Program Outcome MQA	Taxonomies (C, P, A)	Transferable Skill	Assessment Methods			
	1	Explain basic quality tools	PO1, PO2	PO1, PO2	C2, P2		Test			
	2	Apply quality standards and management principles	PO1 PO3	PO2 PO6	C3,P3	CTPS2	Test			
	3	Demonstrate quality standards and quality tools in industry's application	PO3 PO7	PO6 PO7	P3, A2	LL1	Presentation and PMA			
10	Transferable Skills: Skills and how they are developed and assessed, project and practical experience and Internship									
	Transferable Skills		How they are developed				Assessment			
	Critical Thinking and Problem Solving		Developed through guided response and test				Quiz, Test			
	Life- Long Learning		Developed through class discussion, generate concept				Assessed through PMA eport			

11	Teaching-learning and assessment strategy <u>Teaching-learning strategy:</u> Lectures, guided response, Independent learning <u>Assessment strategy :</u> Presentation, Test, Post-course Assignment(PMA)																																				
12	Synopsis The course introduces QMS concept and tools, provides fundamental quality practices and principles. Application of quality principles and practices designed to improve and maintain the highest level of quality excellence within an organization.																																				
13	Mode of Delivery: Lecture, discussion																																				
14	Assessment Methods and Types <table><tr><th>No</th><th>Assessment</th><th>Number</th><th>% each</th><th>% total</th><th>Hour</th></tr><tr><td>1.</td><td>Presentation</td><td>1</td><td>20</td><td>20</td><td>2hr</td></tr><tr><td>2.</td><td>Test</td><td>2</td><td>15</td><td>30</td><td>1hr/each</td></tr><tr><td>3</td><td>PMA Report</td><td>1</td><td>50</td><td>50</td><td></td></tr><tr><td></td><td>TOTAL</td><td></td><td></td><td>100</td><td></td></tr></table>							No	Assessment	Number	% each	% total	Hour	1.	Presentation	1	20	20	2hr	2.	Test	2	15	30	1hr/each	3	PMA Report	1	50	50			TOTAL			100	
No	Assessment	Number	% each	% total	Hour																																
1.	Presentation	1	20	20	2hr																																
2.	Test	2	15	30	1hr/each																																
3	PMA Report	1	50	50																																	
	TOTAL			100																																	
15	Mapping of the course to the Programme Aims Course Learning Outcomes (CLO) are shown in item 9 above. Refer Programme Educational Outcomes (PEO) in Appendix 1.2. Key: PO 1,2,3 = PEO 1 ; PO 4 and 5 = PEO 2 ; PO6 = PEO 3 ; PO7,PO8 = PEO 4 <table><tr><th>CLO</th><th>PEO</th></tr><tr><td>CLO1, CLO2</td><td>PEO1</td></tr><tr><td>CLO3</td><td>PEO1, PEO4</td></tr></table>							CLO	PEO	CLO1, CLO2	PEO1	CLO3	PEO1, PEO4																								
CLO	PEO																																				
CLO1, CLO2	PEO1																																				
CLO3	PEO1, PEO4																																				
16	Mapping of the course to the Programme Learning Outcomes Refer to Appendix 1.3																																				
17	Lecture	Student Learning Time (SLT)																																			
		Face to Face				Independent Learning																															
		L	T	P	O																																
	Definition and importance of Standards and Quality in business	0.5		0.5																																	
	Benefits of Quality Standards to employees, organizations, customers and society	0.5		0.5																																	
	Total Quality Management (TQM): Key components, philosophies	1																																			
	Approaches to TQM	1		0.5																																	
	Team in TQM, QCC, QIT	1		0.5																																	
	Process Management Definition, Principles of process management	2																																			
	Test				1																																

	7 QC tools: Benchmarking	1		0.5		
	Design of Experiments	0.5				
	Failure Mode and Effects Analysis	1				
	Quality Deployment					
	Quality culture	0.5		0.5		
	Quality strategy and Plan	1				
	Case Study and Presentation				2	
	Quality function	1		0.5		
	Documentation: Quality Process and Procedures (Example and discussion)	1		1		
	Test 2				1	
	PMA Discussion			0.5		
	Total	12		5	4	99
	Total SLT	21 + 99 = 120				
	Subject Credit: 3					

18	Main references supporting the course 1. Dale H. Besterfield (2008), Quality Control. 7 th edition Prentice-Hall, Inc. 2. Micheal L.George, John Maxey (2005).The Lean Six Sigma Pocket Toolbox: A Quick Reference Guide to 100 tools for Improving Quality and Speed. McGraw Hill. 3. David Hoyle (2006), Quality Management Essentials, Butterworth Heinemann
19	Other additional information: NIL