



Course Syllabus

Course Instructor	Lecturer Ameer Al Shammaa					
E-mail	Ameer.alshammaa@uokufa.edu.iq					
Title	Software engineering					
Course Description	This course reviews the techniques and approaches to creation of software products. It follows a structured approach associated with software engineering disciplines.					
Course Objective	<p>Provide students with the ability to develop software using the software engineering methodology. Student should be able to:</p> <ol style="list-style-type: none"> 1. Create software requirements and specification documents. 2. Create dependable/reliable software using the methodology and techniques presented in the text. <p>In addition, the student will prepare a paper detailing the steps required to integrate the software engineering methodology in a software development project.</p>					
Textbook	Roger s. Pressman, "Software Engineering, A practitioner's approach", 7th edition McGraw-Hill, 2010					
References	<ol style="list-style-type: none"> 1- Somerville, "Software Engineering 7th edition". 2- Douglas Bell, "Software Engineering for Students, A Programming Approach", Fourth Edition, 2005. 					
Course Assessment	Tests	Laboratory	Quizzes	Project	Assignments	
					Team	individual
	50%		15%	15%	10%	10%
General Notes						



Course weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	Week 1	Provide students with the ability to develop software using the software engineering methodology. Student should be able to:		
2	Week 2	1. Create software requirements and specification documents.		
3	Week3	2. Create dependable/reliable software using the methodology and techniques presented in the text. In addition, the student will prepare a paper detailing the steps required to integrate the software engineering methodology in a software development project.		
4	Week 4	2- Requirements Analysis : Overview <ul style="list-style-type: none"> • What is a requirement? • Requirements Definition and Specification. • What are requirements engineering? • The requirements engineering process. • Types of requirements. 		
5	Week 5	continue		
6	Week 6	Functional & NoN-Functional Requirements <ul style="list-style-type: none"> • What is Functional Requirements (FR)? - The major attributes of FR. - Examples of FR. • What is Non-Functional 		

		requirements(NFR)? - The major attributes of NFR. - Non-Functional requirements types. - The measurement metrics.		
7	Week 7	continue		
8	Week 8	Exam1		
9	Week 9	Requirements and Design • The Software Requirements Document (SRD) - Requirements Definitions		
10	Week 10	Document (RDD) - Requirements Specification Document (RSD) • The major attributes of natural language (NL) • The alternative approaches to the use of NL:		
11	Week 11	- Structured natural language (SNL). - Design description language. - Requirements specification language.		
12	Week 12	Exam2		
13	Week 13	Project Management • What is Software project management? • Software management structure.		
14	Week 14	• The major management activities: - Proposal writing. - Project costing. - Project planning and scheduling. - Project monitoring and reviews. - Personnel selection and evaluation. - Report writing and presentations.		
15	Week 15	• Software planning: - Project plan structure. - Types of project plan.		
16	Week 16	• The project scheduling process: - Bar charts and activity networks. - Task duration and dependencies.		
17	Week 17	• What is risk management? - Risk management process. - Risks and risk types.		
18	Week 18	4- Software Design • Design concepts.		
19	Week 19	• Architectural design: - Data flow oriented design (DFD). - Data structure oriented design. - Object oriented design. • Detailed design. • Design quality assurance.		
20	Week 20	5-Testing and "Debugging" • Introduction.		

21	Week 21	• White –Box testing.		
22	Week 22	• Black –Box testing.		
23	Week 23	• Testing strategy. • Approaches to "Debugging"		
24	Week 24	Exam3		
25	Week 25	Project1		
26	Week 26	Project2		
27	Week 27	Project3		
28	Week 28			
29	Week 29			
30	Week 30	Final exam		

Instructor Signature:

Dean Signature: