Course Description Form

1. *Course Name:*
Software Engineering

2. *Course Code:*

3. *Semester / Year:*
2024-2025

4. *Description Preparation Date:*
2024

5. *Available Attendance Forms:*
(google.com) هندسة برامجيات

6. *Number of Credit Hours (Total) / Number of Units (Total):*
4

7. *Course administrator's name (mention all, if more than one name)*
Name: Iman Qays Abduljaleel Email: iman.abduljaleel@uobasrah.edu.iq

8. *Course Objectives*	
Course Objectives	• What is Software Engineering, and how does it differ from Information Systems and Computer Engineering? • Explanation of the components of Software Engineering. • Explanation of the types of models, how to configure them, their disadvantages, and benefits. • Ethics of software engineers and designers. • How to manage and work on systems. • Knowing how to configure a software system.

- The process of configuring requirements and linking them to the system.
- Understanding the process of designing the system interface and linking it to processing and requirements.
- Understanding how to develop an existing system and make changes to it.

9. Teaching and Learning Strategies

Strategy	Daily exams and interaction with students through question and answer

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	*2*	Understanding the Fundamentals Of software engineering, also, the concepts of Different Methods are Utilized to Develop software Projects	Introduction to software engineering, The Nature of Software, Defining Software	Laptop, Screen to pres the lecture slide White board elaboration	Interactive discussi during lecture, Every week quiz, and 3-to-4exams Throughout the year
2	*2*		Software Application Domains, Software Characteristics, Programmer & Software Engineer		
3	*2*		A software system consists of, the characteristic of software engineer, The Attributes of Good Software, The Goals of Software Engineering, Legacy Software		
4	*2*		Defining the Discipline, The Software Process, The Process Framework, Umbrella Activities, Process Adaptation		
5	*2*		Code of Ethics, Computer-Based System Engineering and Systems Engineering		
6	*2*		Emergent properties, Reliability relationships		
7	*2*		System components and Component types		
8	*2*		Software Processes , Generic software process models		

9	2		Formal systems development		
10	2		Extreme programming, Spiral development		
11	2		Spiral model of the software process, The requirements engineering process		
12	2		System evolution		
13	2		Automated process support (CASE)		
14	2		Case technology, CASE classification		
15	2		*First* **Semester Exam**		
16	2		Project Managements, Software project management		
17	2		Software management distinctions		
18	2		Risk Management		
19	2		Project planning process		
20	2		Project plan structure		
21	2		Activity organization		
22	2		Bar charts and activity networks		
23	2		Task durations and dependencies		
24	2		Activity network, Activity timeline, Staff allocation software		
25	2		Requirements, Requirement's engineering		
26	2		What is a requirement'		
			Non-functional requirement types, Requirements measures, User requirements		
27	2		Problems with natural language		
28	2		Requirement, Requirements Engineering Processes		
29	2		Requirements Engineering Processes		
30	2		Software Security Engineering		

11.Course Evaluation

6 marks- interaction score and regular Quizzes all over the year.
10 marks for preparing reports, presenting them and discussing their topic.

Exam1 out of 17
Exam2 out of 17
Effort score: collecting the above-mentioned points out of 50
Final exam scores out of 50

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	• Software Engineering eighth edition Ian Sommervi 2004, 2008, 2014, and 2017 • Classical and Object-Oriented Software Engineer 3rd Edition • R. Pressman and D. Lnce , "Software Engineerin Practitioner approach 4TH European ,Mergraw 1997. • Somerville," Software Engineering "5 TH, Addis Wesley 1996 • Software Engineering: A Practitioner's Approach Edition, by Roger S. Pressman, Bruce Maxim, 2020
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	