Jordan University of Science and Technology
Faculty of Computer & Information Technology
Software Engineering Department

SE230 Fundamentals Of Software Engineering - JNQF Level: 6

Summer Semester 2023-2024

Course Catalog
3 Credit Hours. This course is 3 credit hours. It provides students with a broad perspective of Software Engineering discipline. It highlights the theories, methods, and tools used in professional software developments. The covered topics include the main concepts, software development cycle, software products, agile software engineering, requirements, software architecture, cloud-based software, reliable programming, and testing.
Teaching Method: On Campus

Text Book	
Title	Engineering Software Products: An introduction to modern software engineering
Author(s)	Ian Sommerville
Edition	1st Edition
Short Name	Ref #1
Other Information	

Instructor	
Name	**Dr. KHALDOON ALZOUBI**
Office Location	M2L2
Office Hours	
Email	ktalzoubi@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Mon, Tue, Wed : 10:00 - 11:30 Room: C2011 Section 2: Lecture Time: Sun, Mon, Tue, Wed : 11:30 - 13:00 Room: C2011

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
822112	HSS211CS Data Structures	Prerequisite / Study
1732112	CS211 Data Structures	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Weeks 1, 2	Introduction to Software Engineering Fundamentals	From **Ref #1**
Week 3	Software Products	From **Ref #1**
Weeks 4, 5	Agile Software Engineering	From **Ref #1**
Week 6	Requirements: Features, scenarios and stories	From **Ref #1**
Week 7	Software Architecture	From **Ref #1**
Weeks 8, 9	Cloud-based software	From **Ref #1**
Weeks 10, 11	Design and Programming	From **Ref #1**
Week 12	Software Testing	From **Ref #1**
Weeks 13, 14	DevOps and Code Management	From **Ref #1**
Weeks 15, 16	Review	From **Ref #1**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method

Differentiate between various software engineering terminologies and their application in different stages of the software development cycle. [1C8, 1B8] [1L6K2]	20%	
List the stages of product-based software engineering to understand their significance and inter-dependencies. [1C8, 1B8] [1L6K2]	10%	
Interpret agile software engineering methods and concepts to comprehend their applicability in different project scenarios. [1C11, 1B11] [1L6K2]	15%	
Identify software requirements concepts, including features, scenarios, and user stories. [1C11, 1B11] [1L6K2]	15%	
Explain the significance of Software Architecture principles, including their adaptation in cloud-based environments. [1C11, 1B11] [1L6K2]	15%	
Describe the importance of Reliable programming, DevOps practices, and effective code management strategies in software development projects. [1C11, 1B11] [1L6K2]	15%	
Elaborate on the main concepts of Software Testing principles, understanding their importance in ensuring software quality. [1C11, 1B11] [1L6K2]	10%	

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SM1p	SM2p	SM3p	EA1p	EA2p	EA3p	EA4p	D1p	D2p	D3p	D4p	D5p	D6p	ET1p	ET2p	ET3p	ET4p	ET5p	ET6p	EP1p	EP2p	EP3p	EP4p	EP5p	EP6p

Relationship to NQF Outcomes (Out of 100%)
L6K2
100

Evaluation	
Assessment Tool	**Weight**
Quizzes	10%
First Exam	25%
Second Exam	25%
Final Exam	40%

Policy	
Exams	* The format for the exams is generally (but NOT always) as follows: general definitions, Multiple-choice, and short essay questions. * Makeup exam should not be given unless there is a valid excuse.
Attendance	* If you miss a class, it is your responsibility to find out about any announcements or assignments you may have missed. * University policies will be applied regarding attendance.

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