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

SE430 Software Testing - JNQF Level: 7

First Semester 2023-2024

Course Catalog
3 Credit Hours. This course teaches quantitative, technical, practical methods that software engineers and developers can use to test their software, both during and at the end of development. Concepts and techniques for testing and modifying (correcting problems or debugging) software in evolving environments. Topics include software testing at the unit, module, subsystem, and system levels; developer testing; automatic and manual techniques for generating test data; designing and implementing software to increase maintainability and reuse; evaluating software for change; and validating software changes. Also, It covers the various subjects, including test models, test design techniques (black box and white-box testing techniques), integration, regression, and system testing methods.
Teaching Method: On Campus

Text Book	
Title	Software Testing: An ISTQB-ISEB Foundation Guide, Second Edition
Author(s)	Brian Hambling,
Edition	2nd Edition
Short Name	Software Testing, An ISTQB-ISEB Foundation Guide
Other Information	

Instructor	
Name	**Dr. HAMZA ALKOFAHI**
Office Location	N2-L0
Office Hours	Sun : 10:30 - 11:30 Sun : 12:30 - 13:30 Tue : 10:30 - 11:30 Tue : 12:30 - 13:30 Wed : 12:30 - 13:30 Thu : 10:30 - 11:30
Email	hoalkofahi@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Tue, Thu : 11:30 - 12:30 Room: M2008

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1763200	SE320 System Analysis And Design	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Weeks 1, 2, 3	Principles	
Weeks 4, 5, 6, 7	Dynamic Testing Techniques	
Weeks 8, 9	Static Testing	
Weeks 10, 11, 12	Testing in life cycle	
Weeks 13, 14	Test Management	
Week 15	Tool support for testing (CAST)	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand established testing concepts, the fundamental test process, test approaches, and principles at all test levels for systems to support test objectives. [1C2] [1L7K1]	15%	Homework, Final, First, Second
Apply various white box testing techniques in an effective and efficient manner, compute test coverage, and yield according to a variety of criteria [1C13] [1L7S1]	35%	Homework, Final, First, Second

Design and implement comprehensive test based on black box testing techniques [1C5, 1C10] [1L7S1]	25%	Homework, Final, Second
Conduct software reviews and apply inspections using various static testing techniques [1C13] [1L7S3]	10%	Homework, Final, First, Second
Identify the needs of software test automation, and employ test tools to support test automation. [1C13] [1L7C2]	10%	Homework, Final, Second
Create and manage test strategies and plans [1C14] [1L7C1]	5%	Final, First

Relationship to Program Student Outcomes (Out of 100%																							
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%)				
L7K1	L7S1	L7S3	L7C1	L7C2
15	60	10	5	10

Evaluation	
Assessment Tool	**Weight**
Homework	15%
Final	40%
First	15%
Second	30%

Policy	
HW	1. Late work will not be accepted. 2. All work has to be done independently within the team 3. Use your e-learning account to submit a softcopy of your work with your Name, Section#, and ID
Exams	1. Exam?s format is generally (but NOT always) divided into three parts: Basic Concepts, Program Analysis, and Programming. 2. Makeup exam should not be given unless there is a valid excuse accepted by the university policies.
Attendance	1. If you miss a class, it is your responsibility to find out about any announcements, quizzes, or assignments you may have missed. 2. University policies will be applied regarding attendance (check your student book). 3. Your attendance/absence is updated weekly into your student account.

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