

Vocational School / Computer Programming

2024 - 2025 Academic Year

SOFTWARE TEST and AUTOMATION

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
SOFTWARE TEST and AUTOMATION	BPR2112607	Fall Semester	3+0	3	5
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	Short Cycle (Associate's Degree)				
Course Type	Elective				
Course Coordinator	Lect. Beyza KOYULMUŞ				
Name of Lecturer(s)	Lect. Emre TÜRNÜKLÜ				
Assistant(s)					
Aim	The aim of this course is to provide students with basic knowledge about test automation, the place of test automation in the testing process, creating a test automation architecture, setting up a sample project and automation coding practices.				
Course Content	This course contains; Fundamentals of software testing, Testing throughout the software development lifecycle, Test case writing, Test case writing application, Static tests, Test design techniques, Risk and testing, TDD and BDD, Service test, Swagger and service test browser reviews, Postman and service test usage information, Postman service test applications, Postman service test execution and automation, User acceptance testing and applications.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Understand the fundamentals of software testing			12, 14, 2, 9	A, E, F	
Performs testing phases throughout the software development lifecycle			10, 16, 9	A, E, F	
Makes test case writing application			14, 16, 17, 2, 6, 9	A, E, F	
Understands test design techniques			12, 16, 2, 8, 9	A, E, F	
Performs service test browser inspections			11, 12, 14, 16, 9	A, E, F	
Knows the use of Postman and service test			10, 12, 16, 2, 6, 9	A, E, F	
Teaching Methods	10: Discussion Method, 11: Demonstration Method, 12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 17: Experiential Learning, 2: Project Based Learning Model, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, E: Homework, F: Project Task				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Fundamentals of software testing				
2	Testing throughout the software development lifecycle				
3	Test case writing				
4	Test case writing application				
5	Static tests				
6	Test design techniques				
7	Risk and testing				
8	TDD and BDD				
9	Service test				
10	Swagger and service test browser reviews				
11	Postman and service test usage information				
12	Postman service test applications				
13	Postman service test execution and automation				
14	User acceptance testing and applications				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			
Resources					
Course presentations					