

Vocational School / Computer Programming
2024 - 2025 Academic Year
SOFTWARE DEVELOPER PLATFORMS and TOOLS
Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
SOFTWARE DEVELOPER PLATFORMS and TOOLS	BPR2160530	Fall Semester	1+2	2	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. Özkan SARI				
Assistant(s)					
Aim	This course aims to introduce the concepts and principles of software engineering, software processes, software quality, software development methods, and the use of UML for system modeling.				
Course Content	This course contains; Software development concepts and integrated software development environments, Introduction to Configuration Management Systems and How to use GIT, Design (UML) Diagrams, Software development models and process steps, Software test techniques and unit tests, Software test tools, Requirement Engineering, Software project management and tools, Object oriented design and solution, Design models, Design modelling tools, Design process and principles, Software quality and its measures, Software quality tools.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Defines various design principles			10, 12, 13, 14, 16, 17, 2, 4, 5, 8, 9	A, D, E, F, G	
Understands the importance of software development approach.			10, 12, 14, 2, 8	A, E, F	
Understands the basic concepts and principles of software development.			12, 14, 2, 6	A, E, F	
Understands software development processes.			12, 14, 2, 6, 8	A, E, F	
Defines software quality concepts and techniques.			10, 12, 14, 2, 6, 8, 9	A, E, F	
Knows various software development tools and techniques.			12, 14, 2, 6, 9	A, E, F	
Fundamental modeling using UML			12, 14, 2, 6, 8, 9	A, E, F	
Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 13: Case Study Method, 14: Self Study Method, 16: Question - Answer Technique, 17: Experimental Technique, 2: Project Based Learning Model, 4: Inquiry-Based Learning, 5: Cooperative Learning, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, D: Oral Exam, E: Homework, F: Project Task, G: Quiz				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Software development concepts and integrated software development environments				
2	Introduction to Configuration Management Systems and How to use GIT				
3	Design (UML) Diagrams				
4	Software development models and process steps.				
5	Software test techniques and unit tests				
6	Software test tools				
7	Requirement Engineering				
8	Software project management and tools				
9	Object oriented design and solution				
10	Design models				
11	Design modelling tools				
12	Design process and principles				
13	Software quality and its measures				
14	Software quality tools				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources	