

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
APPLICATION DEVELOPMENT for MOBILE DEVICES	COE4167950	Fall Semester	3+0	3	6
Prerequisites Courses	VERİ TABANLARI				
Recommended Elective Courses	Human Machine Interaction				
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Elective				
Course Coordinator	Prof.Dr. Mehmet Kemal ÖZDEMİR				
Name of Lecturer(s)	Assist.Prof. Muhsin Zahid UĞUR				
Assistant(s)					
Aim	You will not be able to learn programming just by reading books, following tutorials or watching videos. While these activities are important, you will also need to have a lot of hands-on experience. This class has intensive programming work involved and students will receive hands-on experience for building cross-platform apps with Dart programming language and the Flutter UI toolkit. Lectures will introduce basic to advanced-level topics. Throughout the semester, students will build several small-scale mobile apps in assignments.				
Course Content	This course contains; Flutter Installation, Dart Basics (Variables, Functions),Flutter Basics – Scaffold, AppBar, ElevatedButton, Text, AlertDialog,Stateful Widgets, TextField, DropDownButton,Asynchronous Programming, Navigation,Retrieving Data from Web Services, Parsing JSON Data, ListViews,TabBar, ListView,Firestore (Part 1),Midterm ,Firestore (Part 2),Firestore (Part 3),Firestore (Part 4),2D Animations and Gestures (Part 1),2D Animations and Gestures (Part 2),Review of all the topics.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1. Build beautiful, fast and native-quality apps with Flutter .			2, 9	E, F	
2. Build iOS and Android apps with just one codebase.			2, 9	E, F	
3. Understand all the fundamental concepts of Flutter development.			2, 9	E, F	
4. Build applications that can access online and local data sources.			2, 9	E, F	
Teaching Methods	2: Project Based Learning Model, 9: Lecture Method				
Assessment Methods	E: Homework, F: Project Task				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Flutter Installation, Dart Basics (Variables, Functions)	Tutorial materials			
2	Flutter Basics – Scaffold, AppBar, ElevatedButton, Text, AlertDialog	Tutorial materials			
3	Stateful Widgets, TextField, DropDownButton	Tutorial materials			
4	Asynchronous Programming, Navigation	Tutorial materials			
5	Retrieving Data from Web Services, Parsing JSON Data, ListViews	Tutorial materials			
6	TabBar, ListView	Tutorial materials			
7	Firestore (Part 1)	Tutorial materials			
8	Midterm	All topics covered until Week 8			
9	Firestore (Part 2)	Tutorial materials			
10	Firestore (Part 3)	Tutorial materials			
11	Firestore (Part 4)	Tutorial materials			
12	2D Animations and Gestures (Part 1)	Tutorial materials			
13	2D Animations and Gestures (Part 2)	Tutorial materials			
14	Review of all the topics	All topics covered in the semester			
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources
No need for a textbook. However, this textbook can be checked : Flutter Projects by Simone Alessandria, 2020, Packt PublishingNo textbook necessary. Class materials will be shared.