İZMİR UNIVERSITY OF ECONOMICS

Faculty of Engineering
Computer Engineering
SE 380 - Mobile Application Development

COURSE INTRODUCTION AND APPLICATION INFORMATION

Course Name	**Mobile Application Development**

Code	Semester	Theory (hour/week)	Application/Laboratory (hour/week)	Local Credits	ECTS
SE 380	Fall/Spring	3	0	3	5

Prerequisites	None
Course Language	English
Course Type	Elective
Course Level	First Cycle
Mode of Delivery	-
Teaching Methods and Techniques	-
Course Coordinator	* Dr. Öğr. Üyesi Gazihan ALANKUŞ
Course Lecturer(s)	* Dr. Öğr. Üyesi Gazihan ALANKUŞ
Course Assistants	-

Course Objectives	The objective of this course is to inform students on application development on mobile devices and the differences in application development for mobile devices and other programmable devices, become familiar with mobile application development frameworks and gain practical experience in a team project.
Course Learning Outcomes	The students who succeeded in this course; * will be able to analyze requirements of mobile applications * will be able to design user interfaces and interactions for mobile applications * will be able to develop secure mobile applications that actively interacts with databases

Course Description	Mobile devices, mobile applications and their requirements, developing mobile applications, using web services and databases in mobile applications.

Course Category	Core Courses	
	Major Area Courses	X
	Supportive Courses	
	Media and Managment Skills Courses	
	Transferable Skill Courses	

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week16	Subjects	Related Materials
1	Introduction	Slides and lecture notes
2	Introduction to mobile applications	Slides and lecture notes
3	Declarative programming	Slides and lecture notes
4	Introduction to Dart language and Flutter UI framework	Slides and lecture notes
5	Widgets and state	Slides and lecture notes
6	Widget tree and UI Layouts	Slides and lecture notes
7	State management	Slides and lecture notes
8	MIDTERM	
9	State management	Slides and lecture notes
10	Backend technologies	Slides and lecture notes
11	Project workshop	Slides and lecture notes
12	Project workshop	Slides and lecture notes
13	Project workshop	Slides and lecture notes
14	Project workshop	Slides and lecture notes
15	Course Review	
16	Project presentations	

SOURCES

Course Notes / Textbooks	https://flutter.dev/
Suggested Readings/Materials	https://developer.android.com/ https://developer.apple.com/

EVALUATION SYSTEM

Semester Activities	**Number**	**Percentage of Grade**
Participation	-	-
Laboratory / Application	-	-
Field Work	-	-
Quiz/Studio Critic	-	-
Portfoilo	-	-
Homework Assignment	4	30
Presentation/Jury	-	-
Project	1	40
Seminar/Workshop	-	-
Oral Exam	-	-
Midterm	1	30
Final	-	-
Total	6	100

WEIGHTING OF SEMESTER ACTIVITIES ON THE FINAL GRADE	**11**	**100**
WEIGHTING OF END-OF-SEMESTER ACTIVITIES ON THE FINAL GRADE	**-**	**-**
Total	11	100

ECTS / WORKLOAD TABLE

Semester Activities	Number	Duration (Hours)	Total Workload
Course Hours (Including Exam Week: 16 x Total Hours)	16	3	48
Laboratory / Application Hours	16	-	-
Study Hours Out of Class	16	1	16
Field Work	-	-	-
Quiz / Studio Critique	-	-	-
Portfolio	-	-	-
Homework / Assignment	4	4	16
Presentation / Jury	-	-	-
Project	1	45	45
Seminar / Workshop	-	-	-
Oral Exam	-	-	-
Midterm	1	25	25
Final	-		-
		Total Workload	**150**

THE RELATIONSHIP BETWEEN COURSE LEARNING OUTCOMES AND PROGRAM QUALIFICATIONS

#	Program Qualifications / Outcomes	* Level of Contribution				
		1	2	3	4	5
1	To have adequate knowledge in Mathematics, Science and Computer Engineering; to be able to use theoretical and applied information in these areas on complex engineering problems.				X	
2	To be able to identify, define, formulate, and solve complex Computer Engineering problems; to be able to select and apply proper analysis and modeling methods for this purpose.			X		
3	To be able to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the requirements; to be able to apply modern design methods for this purpose.				X	
4	To be able to devise, select, and use modern techniques and tools needed for analysis and solution of complex problems in Computer Engineering applications; to be able to use information technologies effectively.				X	
5	To be able to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or Computer Engineering research topics.					
6	To be able to work efficiently in Computer Engineering disciplinary and multi-disciplinary teams; to be able to work individually.			X		
7	To be able to communicate effectively in Turkish, both orally and in writing; to be able to author and comprehend written reports, to be able to prepare design and implementation reports, to present effectively, to be able to give and receive clear and comprehensible instructions.					
8	To have knowledge about global and social impact of Computer Engineering practices on health, environment, and safety; to have knowledge about contemporary issues as they pertain to engineering; to be aware of the legal ramifications of Computer Engineering solutions.					
9	To be aware of ethical behavior, professional and ethical responsibility; to have knowledge about standards utilized in engineering applications.					
10	To have knowledge about industrial practices such as project management, risk management, and change management; to have awareness of entrepreneurship and innovation; to have knowledge about sustainable development.					
11	To be able to collect data in the area of Computer Engineering, and to be able to communicate with colleagues in a foreign language. ("European Language Portfolio Global Scale", Level B1)					
12	To be able to speak a second foreign language at a medium level of fluency efficiently.					

13	To recognize the need for lifelong learning; to be able to access information, to be able to stay current with developments in science and technology; to be able to relate the knowledge accumulated throughout the human history to Computer Engineering.					

*1 Lowest, 2 Low, 3 Average, 4 High, 5 Highest