

**OSTİM TECHNICAL UNIVERSITY  
COMPUTER ENGINEERING**

**COURSE SYLLABUS FORM  
2020-2021**

<b>Mobile Application Development</b>							
Course Name	Course Code	Term	Hour	Practice	Lab	Credit	ECTS
Mobile Application Development	CENG 403	7	3	0	0	3	4

<b>Language of the Course</b>	English
<b>Type of Course</b>	Compulsory
<b>Course Level</b>	Undergraduate
<b>Method of Teaching</b>	Face-to-face, online
<b>Instructor</b>	
<b>Course Learning and Teaching Techniques</b>	Lecture, Homework, Project

<b>Purpose of the Course</b>
The aim of this course is to explain the general logic of mobile platforms to the participants and to develop applications for the Android platform.

<b>Learning Outcomes</b>
<p>Students who successfully complete this course;</p> <ul style="list-style-type: none"> <li>• Can develop an application from the beginning to the end on the Android platform using java.</li> <li>• Learns how to develop applications on devices with mobile operating systems,</li> <li>• Knows how to design and code a solution corresponding to a problem on mobile devices.</li> <li>• It can manage messaging with HTTP and can prepare applications that can work integrated with web services in Java Application Servers.</li> </ul>

<b>Course Content</b>
The course introduces the participants to the software development processes of today's frequently used mobile devices. Mobile software development methodologies and programming principles are explained. It offers participants the opportunity to design, develop and implement a mobile application. Participants also learn how to debug applications for the Android platform.

<b>Weekly Plan and Related Preparation Studies</b>	
Week	Subjects
1	Introduction to Mobile Computing
2	Android Development Environment
3	Generic UI Development
4	Multichannel and Multimodal UIs
5	Intents and Services
6	Storing and Retrieving Data

7	Communications via Network and the Web
<b>8</b>	Midterm
9	Notifications and Alarms
10	Graphics and UI Performance
11	Android Multimedia
12	Mobility and Location Based Services
13	Packaging and Deploying
14	Performance Best Practices
15	Security & Testing
<b>16</b>	Applications

Resources (Textbook and supplementary book)	
1.	Android Programming: The Big Nerd Ranch Guide (Big Nerd Ranch Guides); Phillips, Bill; Stewart, Chris and Marsicano, Kristin 2021; Amazon
2.	Head First Android Development: A Brain-Friendly Guide; Dawn Griffiths; 2017; O'Reilly UK Ltd.; 2nd editioni

Evaluation System		
Studies	Number	Contribution
Attendance		
Lab		
Application		
Field Study		
Course Specific Internship (if applicable)		
Quizzes/Studio/Critical		
Homework	4	% 20
Presentation		
Projects	1	% 50
Report		
Seminar		
Midterm Exams/Midterm Jury	1	% 30
General Exam/Final Jury		
<b>Total</b>		<b>% 100</b>
<b>Contribution of Mid-Semester Studies to Success Grade</b>		% 40
<b>Contribution of End of Semester Studies to Success Grade</b>		% 60
<b>Total</b>		<b>% 100</b>

Course Category	
Basic Vocational Courses	
Specialization/Field Courses	x
Support Lessons	
Communication and Management Skills Lessons	
Transferable Skills Lessons	

Course Learning Outcomes and Program Qualifications						
No	Program Qualifications / Outcomes	Contribution Level				
		1	2	3	4	5
1	Ability to apply knowledge of mathematics, science, and engineering				x	
2	Analyzing a problem with the eye of a mobile application and producing a solution					

<b>3</b>	Ability to design a mobile system, component and process according to specified requirements.				x	
<b>4</b>	Ability to work in teams in interdisciplinary areas.				x	
<b>5</b>	Ability to identify, formulate and solve engineering problems.				x	

<b>ECTS/Workload Table</b>			
<b>Activities</b>	<b>Count</b>	<b>Duration (Hours)</b>	<b>Total Workload</b>
Lesson hours (Including the exam week: 16 x total lesson hours)	16	3	48
Lab			
Application			
Course Specific Internship			
Field Study			
Out of Class Study Time			
Presentation/Seminar Preparation			
Projects	1	20	25
Reports			
Homeworks	3	5	15
Quizzes/Studio Critic			
Preparation Time for Midterm Exams/Midterm Jury	1	20	20
Preparation Time for the General Exam/General Jury			
<b>Total Workload</b>	<b>(ECTS 108/25 = 4,32)</b>		<b>108</b>