TED UNIVERSITY, COURSE SYLLABUS

Faculty	Engineering	**Department**	CMPE

Course Code & Number	CMPE 317	**Course Title**	Mobile Application Development
Type of Course	☐Compulsory ☑ Elective	**Semester**	☑ Fall ☐Spring ☐ Summer
Course Credit Hours	(2+0+2) 3	**Number of ECTS Credits**	5
Pre-requisite	N/A	**Co-requisite**	N/A
Mode of Delivery	☑ Face-to-face ☐ Distance learning	**Language of Instruction**	☑ English ☐ Turkish
Course Coordinator		**Course Lecturer(s)**	Dr. Bilgin Avenoğlu
Required Reading	Head First Android Development, Dawn Griffiths and David Griffiths, O'REILLY, 2015	**Recommended Reading**	• Hello, Android Introducing Google's Mobile Development Platform, Ed Burnette, Fourth Edition, The Pragmatic Bıkshelf, 2015 • Android Programming The Big Nerd Ranch Guide, Bill Phillips, Chris Stewart, Brian Hardy and Kristin Marsicano, 2015

Course Catalog Description	Mobile development frameworks. Design considerations. Blackberry OS. Blackberry development tools. Java ME. Android OS. Android development tools. User interface and event management for Blackberry OS and Android OS. Networking. GPS. Accelerometer. Storage. SQLite.
Course Objectives	• Understand history of mobile application development. • Compare and contrast native and cross-platform development. • Design and develop mobile applications using Android SDK. • Use Android development tools.

Course Learning Outcomes	• Identify the Android platform and architecture. • Set up Android SDK, Emulators and Development Environment. • Develop mobile and tablet applications using the Android Application Framework. • Explore the User Interface elements of the Android Framework. • Create Services for background processing. • Use Content Providers. • Leverage SQLite Database for Persistence of data. • Implement Android applications to make use of Location based services. • Practice Packaging and Publishing Android applications. • Access cloud based services from the Android applications. • Discover advanced topics like Google APIs, Graphics capabilities, Native capabilities.
Course Contents	Android SDK and Android Development Tools.

Teaching Methods & Learning Activities	☑ Telling/Explaining ☑ Discussions/Debates ☑ Questioning ☑ Reading ☑ Peer Teaching ☐ Scaffolding/Coaching ☑ Demonstrating ☑ Problem Solving ☐ Inquiry ☑ Collaborating ☐ Think-Pair-Share ☐ Predict-Observe-Explain ☐ Microteaching ☐ Case Study/Scenario Analysis	☐ Simulations & Games ☑ Video Presentations ☑ Oral Presentations/Reports ☐ Concept Mapping ☐ Brainstorming ☐ Drama/Role Playing ☐ Seminars ☐ Field Trips ☐ Guest Speakers ☐ Hands-on Activities ☐ Service Learning ☑ Web Searching ☐ Experiments ☐ Other(s): .....
Assessment Methods (Formal & Informal)	☑ Test/Exam ☑ Quiz/Homework ☑ Oral Questioning ☑ Performance Project ☑ Written ☐ Oral	☐ Observation ☐ Self-evaluation ☐ Peer Evaluation ☐ Portfolio ☑ Presentation (Oral, Poster) ☐ Other(s): .....

Student Workload (Total 150 Hrs)	☑ Lectures .....**28**.. hrs ☑ Course Readings .....**14**.. hrs ☐ Workshop ..... hrs ☐ Online Discussion ..... hrs ☐ Debate ..... hrs ☐ Work Placement ..... hrs ☐ Field Trips/Visits ..... hrs ☐ Observation ..... hrs ☐ Lab Applications .....**28** hrs ☐ Hands-on Work ..... hrs ☐ Quizzes .....**8**..hrs ☑ Midterm I.....**10**. hrs ☐ Midterm II..... hrs ☑ Final.....**20**. hrs	☐ Resource Review ..... hrs ☐ Research Review ..... hrs ☐ Report on a Topic ..... hrs ☐ Case Study Analysis ..... hrs ☐ Oral Presentation ..... hrs ☐ Poster Presentation ..... hrs ☐ Demonstration ..... hrs ☐ Web Designs ..... hrs ☐ Mock Designs ..... hrs ☐ Team Meetings..... hrs ☐ Project .....**42**. hrs ☐ Other ..... hrs

COURSE POLICIES

I. Attendance

Attendance to the course is necessary but not mandatory.

II. Missed Work

Make-ups for midterm and final exams will be provided if the student can provide a legal document confirming a life threatening health issue at the time of the examination, or with the consensus of the CMPE faculty.

III. Late Assignment Submission Policy

Late assignments will have 10% of the maximum score deducted for each 24-hour period after the due date that the assignment is late, except under extenuating circumstances. No assignment will be accepted more than 3 days late.

IV. Extra Credit

Extra credits will not be offered.

V. Assignment Rules

A student can submit only one work. In case of multiple submissions, only the latest submission will be considered. Students cannot submit work on other students' behalf.

VI. Plagiarism

"All of the following are considered plagiarism:

- turning in someone else's work as your own
- copying words or ideas from someone else without giving credit
- failing to put a quotation in quotation marks
- giving incorrect information about the source of a quotation
- changing words but copying the sentence structure of a source without giving credit
- copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not" (www.plagiarism.org)

Plagiarism is a very serious offense and will be penalized accordingly by the university disciplinary committee. The best way to avoid accidentally plagiarizing is to work on your own before you ask for the help of other resources.

VII. Cheating

Cheating has a very broad description which can be summarized as "acting dishonestly". Some of the things that can be considered as cheating are the following:

- Copying answers on examinations, homework and laboratory works,
- Using prohibited material on examinations,

- Lying to gain any type of advantage in class
- Providing false, modified or forged data in a report
- Plagiarizing
- Modifying graded material to be re-graded.
- Causing harm to colleagues by distributing false information about an examination, homework or laboratory.

Cheating is a very serious offense and will be penalized accordingly by the university disciplinary committee.

VIII. Class Participation

Participation in class is necessary but not mandatory. By actively participating in class, you can improve your learning process and immediately confirm what you have learned and what you have not. Do not forget that you are not expected to know the material being discussed in class. Actually, you are expected not to know it. Therefore, there is no point in being hesitant to join a conversation or ask a question.

IX. Class Readings

Class readings are necessary but not mandatory. The material covered in class by your instructor will only provide a fundamental understanding of the general context. If you are willing to effectively learn something, you must actively work on it yourself. Reading is one of the most successful ways of learning about a topic.

COURSE ASSIGNMENTS

A. Mid-term [15%]

15% for mid-term exam.

B. Quizzes [10 %]

There will be two quizzes.

C. Labs [25 %]

There will be 10 lab tasks.

D. Project [30%]

Students will develop a mobile application. This application will be uploaded to the Google Play store. If the students don't upload the application, they will get FX grade.

E. Final [20%]

There will be one final exam.

GRADING

A. The course will be graded on a curve.

TENTATIVE COURSE OUTLINE

W	Day	Topics	Readings	Assignments

1		History of Mobile Application Development		
2		Native vs. Cross Platform Development		
3		Introduction to Android		
4		Interactive Android Applications		
5		Multiple Activities, Intents and the Activity Lifecycle		
6		The User Interface		
7		List Views and Adapters		
8		Fragments and Nested Fragments		
9		Action Bars		
10		Navigation Drawers		
11		SQLite Databases		
12		Cursors and Asynctasks		
13		Services		
14		Material design		
		FINAL EXAMS WEEK, 02/01/2017- 14/01/2017		

COURSE ASSESSMENTS & LEARNING OUTCOMES MATRIX	
Course Learning Outcomes	**Assessment Methods**
LO1	Quiz, Lab, Midterm, Final, Project
LO2	Quiz, Lab, Midterm, Final, Project
LO3	Quiz, Lab, Midterm, Final, Project
LO4	Quiz, Lab, Midterm, Final, Project
LO5	Quiz, Lab, Midterm, Final, Project
LO6	Quiz, Lab, Midterm, Final, Project
LO7	Quiz, Lab, Midterm, Final, Project
LO8	Quiz, Lab, Midterm, Final, Project
LO9	Quiz, Lab, Midterm, Final, Project
LO10	Quiz, Lab, Midterm, Final, Project

Prepared By & Date	Dr. Bilgin Avenoğlu 01/10/2016	**Revision Date**	01/10/2016