

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**IV B. TECH – I SEMESTER**

**Mobile ApplicationDevelopment**

<b>Course Code</b>	19CS3701	<b>Year</b>	IV	<b>Semester</b>	I
<b>Course Category</b>	Program Core	<b>Branch</b>	CSE	<b>Course Type</b>	Theory
<b>Credits</b>	3	<b>L-T-P</b>	3-0-0	<b>Prerequisites</b>	Java, Database Management Systems, Advanced Java and Web Technologies
<b>Continuous Internal Evaluation :</b>	30	<b>Semester End Evaluation:</b>	70	<b>Total Marks:</b>	100

**Course Outcomes**

Upon successful completion of the course, the student will be able to:

<b>CO1</b>	Understand the basic concepts of android studio development environment	<b>L2</b>
<b>CO2</b>	Apply UI components to develop applications and make an effective report.	<b>L3</b>
<b>CO3</b>	Apply Database APIs to develop applications	<b>L3</b>

**Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3: Substantial, 2: Moderate, 1: Slight)**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>CO1</b>	2				2								2	
<b>CO2</b>	2		2	2	2	2	2		3	3			2	2
<b>CO3</b>	2		2	2		2	2						2	2

**Course Content**

<b>UNIT-1</b>	Beginning Android and Java: Introduction to Android Platform, Android vs. other mobile platforms, Android Stack, Android Versions, Why Java in Android?, How Java and Android work together, The structure of Android's Java code, Android emulator, Sample programs on emulator	<b>CO1</b>
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<b>UNIT-2</b>	<b>Java, XML, and the UI Designer:</b> Examining the logcat output, Exploring the project Java and the main layout XML, Working with common widgets, Writing our first Java code, Activity life cycle demo app	<b>CO1, CO2</b>
<b>UNIT-3</b>	<b>Getting Started with Layouts:</b> Introducing layouts, Building a precise UI with Constraint Layout, Laying out data with TableLayout, <b>Android Dialog Windows:</b> Dialog windows, Coding the Fragment classes and their layouts	<b>CO1, CO2</b>
<b>UNIT-4</b>	<b>Data Persistence and Sharing:</b> Android intents, Switching Activity, Passing data between activities, Persisting data with Shared Preferences, Reloading data with Shared Preferences, What is JSON?	<b>CO1, CO3</b>
<b>UNIT-5</b>	<b>Android Databases:</b> What is a database?, What is SQLite?, SQL syntax primer, Android SQLite API, Coding the database class	<b>CO1, CO3</b>

### Learning Resources

#### Text Books

1. Android Programming for Beginners: Build in-depth, full-featured Android apps starting from zero programming experience, John Horton ,3rd Edition, 2021, PACKT Publishers.

#### Reference Books

1. Head First Android Development: A Brain-Friendly Guide, Dawn Griffiths, David Griffiths,2015, O'Reilly
2. Android 9 Development Cookbook, Rick Boyer, 3rd Edition, 2018, Packt Publishers
3. Android Programming: Pushing the Limits Paperback – Illustrated, Erik Hellman, 2013, Wiley
4. Professional Android, Reto Meier, Ian Lake, 4th Edition, 2018, Wrox