

**OBJECTIVES:**

1. To understand the difference between mobile based application and conventional application
2. To learn to design user interface for Mobile applications
3. To learn to develop simple Android based mobile applications
4. To learn to integrate database with an Android Application
5. To be familiar with mobile frame works like IOS, windows and blackberry

**PRE-REQUISITE:**

- Object Oriented Programming System
- Software Engineering

**UNIT I INTRODUCTION 9**

Brief History of Mobile Software Development - Mobile Web Vs. Mobile App - Hardware and Software for different Mobile frameworks - Difference between Mobile and Desktop applications.

**UNIT II USER INTERFACE DESIGN 9**

Mobile Application users - Basic Design principles - Mobile Information Design - Mobile Platforms: Android, IOS, BlackberryOS, WindowsPhone.

**UNIT III APPLICATION DEVELOPMENT FOR ANDROID-I 9**

Android Platform - Different SDKs and their growth - Android Architecture - Android Development Environment Setup - Anatomy of Android Application - Views & Layouts - List View - Adapters - HTTP Connection initiation.

**UNIT IV APPLICATION DEVELOPMENT FOR ANDROID-II 9**

Database Integration - Android Preferences - Broadcast Receivers - Content providers - Usage of different sensors – Services - intent filters.

**UNIT V OTHER MOBILE FRAMEWORKS 9**

IOS - Objective C Basics - a simple App in IOS - Windows Phone basics - Simple Application in Windows Phone - Blackberry basics - Simple Application in Blackberry - Introduction to Cross- platform Mobile Application development.

**Total: 45 Periods**

**TEXT BOOK(S):**

1. Jeff McWherter and Scott Gowell, "Professional Mobile Application Development", Wrox, 2012

**REFERENCE BOOK(S):**

1. Joseph Annuzzi, Jr., Lauren Darcey, Shane Conder "Introduction to Android™ Application Development, Addison-Wesley, Fourth Edition, 2014
2. Charlie Collins, Michael Galpin and Matthias Kappler, "Android in Practice", DreamTech, 2012

**WEB RESOURCE(S):**

1. <https://searchapparchitecture.techtarget.com/definition/mobile-application-development>
2. [https://www.tutorialspoint.com/mobile\\_development\\_tutorials.htm](https://www.tutorialspoint.com/mobile_development_tutorials.htm)

**COURSE OUTCOME(S):**

Upon completion of the course, the students will be able to

CO510.1 Explore the differences between mobile based application and conventional application

CO510.2 Design UI in the context of mobile application

CO510.3 Develop mobile applications for Android

CO510.4 Write Android application involving integration of sensors, connectivity to database, etc.

CO510.5 Write simple App for IOS, blackberry and Windows phone.

**PO Vs CO MAPPING**

CO No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	3											
2			2									
3		2	2									
4	3	2	1									
5		2	1									

1→Low 2→Medium 3→High

