

Branch Name:	MCA
Program Code:	CS201
Course Name:	Mobile Applications Development
Course Code:	4CS2010303T
Pre-requisite Course:	Knowledge of the Core Java Programming, database concepts

Course Objectives:

1. To understand the process of developing software for the mobile.
2. To be able to create mobile applications on the Android Platform.
3. To be able to create mobile applications involving data storage in SQLite database.
4. To be able to create mobile applications to call and message via Android APIs.
5. Learn to deploy the Android Application to the world via Play Store.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
3	-	-	3	60	40	-	-	100

Subject Contents				
Sr. No	Topic	Total Hours	Weight (%)	
1	Introduction to Android: ❖ History of Mobile Software Development ❖ The Open Handset Alliance ❖ Download and install Android Studio 3.4.1 for Windows 10 64 Bit. ❖ Life Cycle of Android Application ❖ Architecture of Android, Exploring Android SDK ❖ Testing Your Development Environment ❖ The Lifecycle of an Android Activity ❖ Android File and Directories, AVD, Android Components	9	25	
2	Android Application Design Essentials: ❖ Application Context, Activities, Services, Intents ❖ Intent and It's Types ❖ Receiving and Broadcasting Intents ❖ Using Permissions ❖ Managing Application resources in a hierarchy ❖ Working with different types of resources ❖ Android Manifest File and it's usage with different features ❖ Android Manifest File and it's different configuration tags ❖ Working with String and String Array resources	9	25	

3	Android User Interface Design Essentials: ❖ User Interface Screen elements ❖ Designing User Interfaces with Layouts ❖ Drawing and Working with Animation ❖ Introduction to Android View, Layout and Control	6	15
4	Using Common Android APIs: ❖ Displaying Text with Text View ❖ Retrieving Data from Users ❖ Auto Complete Text View and Multi Auto Complete Text View Spinner Controls ❖ Using Buttons, Check Boxes and Radio Groups ❖ Getting Dates and Times from Users ❖ Using Indicators to Display Data to Users - Providing Users with Options and Context Menus - Handling User Events - Working with Dialogs - Working with Styles & Themes	9	25
5	Android Networking Fundamentals Application: ❖ Understanding Mobile Networking Fundamentals - Accessing the Internet (HTTP) - Browsing the Web with WebView - Building Web Extensions using WebKit ❖ SQL Lite Database Fundamental	5	10

Text Books: Lauren Darcey and Shane Conder, “Android Wireless Application Development”, Pearson Education, 2nd ed. (2021).

Reference Books:

1. Reto Meier, “Professional Android 2 Application Development”, Wiley India Pvt Ltd (2023).
2. Mark L Murphy, “Beginning Android”, Wiley India Pvt Ltd (2023).
3. Sayed Y Hashimi and Satya Komatineni, “Pro Android”, Wiley India Pvt Ltd (2019).

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand the importance of mobile application for solving real world problems	1 Remembering 2. Understanding 5. Evaluate
CLO2	Develop mobile applications using Android Platform.	6. Creating
CLO3	Understand the mechanism of database structure with Android Programming using SQLite Database.	2. Understanding 5. Evaluate
CLO4	Install and configure Android Platform	2. Understanding 6. Creating

		3. Applying
CLO5	Explain and use key Android programming concepts	4. Analyze 3. Applying
CLO6	Deploy the Android application	6. Creating

Mapping of CLOs with POs & PSOs

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes (PSOs)	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CLO1	-	H	H	-	-	-	M	-	-	-	-	M	H	H
CLO2	-	H	H	-	-	L	-	M	-	H	-	-	H	H
CLO3	-	M	M	H	M	H	-	M	-	-	-	-	H	M
CLO4	-	M	M	M	-	M	-	M	M	-	-	-	-	M
CLO5	H	-	-	M	H	M	H	H	H	-	-	-	-	-
CLO6	-	H	H	-	H	H	-	-	-	L	-	M	H	H

H: High, M: Medium, L: Low