



**C. U. SHAH UNIVERSITY**  
**Wadhwan City**

**FACULTY OF:- Computer Science**

**DEPARTMENT OF:- Master of Computer Applications**

**SEMESTER:- IV**

**CODE: - 5CS04MMC1**

**NAME:- MOBILE COMPUTING (MC)**

**Teaching and Evaluation Scheme**

Subject Code	Name of the Subject	Teaching Scheme (Hours)				Credits	Evaluation Scheme							
		Th	Tu	Pr	Total		Theory				Practical (Marks)			Total
							Sessional Exam		University Exam		Internal		University	
							Marks	Hrs	Marks	Hrs	Pr/Vis	TW	Pr	
5CS04MMC1	MOBILE COMPUTING (MC)	4	0	0	4	4	30	1.5	70	3	--	--	--	<b>100</b>

**Objectives:**

- Find tips and tricks to streamline the development process and take advantage of unique features of mobile based application development.
- To provides comprehensive guidance on designing, developing, testing, debugging, and distributing professional mobile based applications.

**Prerequisites:**

- Fundamentals knowledge of Core Java Programming, GUI Controls, Database Terminologies.

**Course Outline:-**

SNo.	Course Contents	No. of Hrs.
1	Overview of Android; Open Handset Alliance, Platform Differences, Setting up Android Development Environments, Androids Tools – SDK and AVD Manager, Emulator, DDMS, ADB, Hierarchy Viewer.	2
2	Android Terminology – Context, Activity, Intent and Service, Lifecycle of an Android Activity, Activity Transitions with Intents, Configuring the Android Manifest file, Registering Activities and Others Application Components, Invoke default browser, Invoke Dialpad.	2
3	Widgets Overview - TextView, Button and EditText. Using AAPT. Managing Application Resources – Accessing Resources Programmatically, Types – String, String Arrays, Colors, Dimensions, Images, Menus, XML files, Raw Files, Style. Reference to Resources, Working with Layouts, Configuring Layout and Sizing, Use of HTML Tags.	4
4	User Interface Screen Elements – Creating Contextual Links in Text, Auto Completion, User Input and Input Filters, Check Boxes, Radio Groups and Radio Buttons, Toggle Button, Image Button,	5



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	Rating Bar, Spinner, Chronometer, Displaying Date & Time, Options & Context Menu, Handling Events.	
5	Working with Dialog – Alert Dialog, Progress Dialog, Customize Dialogs. Life Cycle of Dialog.	<b>2</b>
6	Creating Layout Programmatically, Layout Classes – FrameLayout, LinearLayout, RelativeLayout, TableLayout.	<b>2</b>
7	TabHost & TabWidget, Animation – Frame-by-Frame and Tweened Animation. ShapeDrawable – Rectangle, Squares, Ovals, Arc, and Lines. Moving Object on the Screen.	<b>4</b>
8	ListView, GridView, GalleryView	<b>2</b>
9	Working with Canvases & Paints, Gradients, Fonts & Typefaces, Bitmap, Matrices, Draw using Finger Touch	<b>2</b>
10	Working with Files & Directories, Read & Write files to SD Card.	<b>3</b>
11	Working with SQLite Databases, Content Providers, and Cursor.	<b>4</b>
12	WebView and Web Settings.	<b>2</b>
13	Multimedia APIs – Camera, Playing Audio, Playing Video, Send Email.	<b>3</b>
14	Telephony APIs – Requesting Call State, Read SMS, Send SMS, Display Contacts.	<b>3</b>
15	Getting Phone Information, Battery status, Manufacturer, Model, SDK Version, SD Card Free Space, Display Matrices, Memory Information,	<b>4</b>
16	Active Network Connection, Mobile Vibrate, Sharing Information to Social Media, Push Notification, Keyboard Input Types, Flashlight Torch, Blinking Background Color.	<b>4</b>
<b>Total</b>		<b>48</b>

### **Learning Outcomes:**

- Students learn to develop professional android applications.

### **Teaching & Learning Methodology:**

- Using Whiteboard & Multimedia or OHP

### **Books Recommended:**

1. Android Wireless Application Development, **Lauren Darcey and Shane Conder**, Pearson Education, 2nd Ed.
2. Beginning Android, **Mark L Murphy**, Wiley India Pvt. Ltd.