



# C. U. SHAH UNIVERSITY, WADHWAN CITY.

Faculty of: **Computer Science**

Course: **Master of Computer Applications**

Semester: **III**

Subject Code: **5CS03CMC1**

Subject Name: **Mobile Computing**

Sr. No	Subject Code	Subject Name	Teaching hours/ Week			Credit hours	Credit Points	Evaluation Scheme/ Semester									
			Th	Tu	Pr			Theory				Practical				Total	
								Internal Assessment		End Semester Exams		Internal Assessment		End Semester Exams			
								Marks	Duration	Marks	Duration	Marks	Duration	Marks	Duration		
1	5CS03CMC1	Mobile Computing	4	--	4	8	6	30	1½	70	2½	--	--	50	1½	150	

**AIM:**

- 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.

**Course Outline:**

SNo.	Course Content	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, Rating Bar, Spinner, Chronometer, Displaying Date & Time, Options & Context Menu, Handling Events.	5
5	Working with Dialog – Alert Dialog, Progress Dialog, Customize Dialogs. Life Cycle of Dialog.	2
6	Creating Layout Programmatically, Layout Classes – FrameLayout, LinearLayout, RelativeLayout, TableLayout.	2

7	TabHost & TabWidget, Animation – Frame-by-Frame and Tweened Animation. ShapeDrawable – Rectangle, Squares, Ovals, Arc, and Lines. Moving Object on the Screen.	4
8	ListView, GridView, GalleryView	2
9	Working with Canvases & Paints, Gradients, Fonts & Typefaces, Bitmap, Matrices, Draw using Finger Touch	2
10	Working with Files & Directories, Read & Write files to SD Card.	3
11	Working with SQLite Databases, Content Providers, and Cursor.	4
12	WebView and Web Settings.	2
13	Multimedia APIs – Camera, Playing Audio, Playing Video, Send Email.	3
14	Telephony APIs – Requesting Call State, Read SMS, Send SMS, Display Contacts.	3
15	Getting Phone Information, Battery status, Manufacturer, Model, SDK Version, SD Card Free Space, Display Matrices, Memory Information,	4
16	Active Network Connection, Mobile Vibrate, Sharing Information to Social Media, Push Notification, Keyboard Input Types, Flashlight Torch, Blinking Background Color.	4
<b>Total</b>		<b>48</b>

**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.