



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Integrated MSc, 5th Semester

Branch: Information Technology

Subject Name: Mobile Application Development

Subject Code: 1350502

Teaching and Examination Scheme

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE(E)	PA (M)	PA (V)	PA (I)	
3	0	2	4	70	30	30	20	150

Content:

Sr. No.	Content	Teaching Hours	Module Weightage (%)
1.	Introduction to ANDROID ANDROID SDK Features, Introduction to Development Features Basics of ANDROID Developing for ANDROID, developing for mobile and embedded devices, ANDROID development tools Creating Applications using ANDROID Basics of an ANDROID application, introduction to manifest, externalizing resources, application lifecycle, ANDROID activities	5	10%
2.	Building user interfaces Introduction to layouts, introduction to fragments, creating new views, introduction to adapters Intents and broadcast receivers Introduction to intents, creating intents and broadcast receivers Using Internet resources Downloading and parsing internet resources, using the download manager, using internet services	8	20%
3.	Files, saving state and preferences Creating, saving and retrieving shares preferences, including static files as resources, working with the file system Database and content providers Introducing ANDROID databases, content values and cursors, working with SQLite databases, creating content providers, using content providers, native ANDROID content providers Working in background Introducing services, using background threads, using alarms	9	25%



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4.	Enhancing user experience Introduction and addition of action bar, Creating and using menus and Action bars action menus, Introducing dialogs, Let us make toast, Introducing notifications Advanced User experience: Designing for every Screen size and density, Introducing Android Text-to speech, Using speech recognition, Controlling Device vibration, Working with Animations, Enhancing your views, Advanced Drawable resources	10	25%
5.	Audio, video and using the camera Playing audio and video, manipulating raw audio, using camera to take pictures, recording video, adding media to media store Telephony and SMS Hardware support for telephony, using telephony, introducing SMS and MMS Monetizing, promoting and distributing the applications Signing and publishing applications, distributing applications, introduction to monetizing applications	8	20%

Suggested Specification table with Marks (Theory):70

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	30	10	10	5	5

R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Reference Books:

1. Reto Meier, Professional ANDROID 4 Application Development, WROX Latest Edition
2. Android Application Development Black Book by Pradeep Kothari, DreamTech
3. Beginning Android 4 Application Development by Wei Meng Lee, Wrox
4. Android Wireless Application Development By Lauren Darcey, Shane Conder, Pearson
5. Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd(2009)
6. Sayed Y Hashimi and Satya Komatineni, "Pro Android", Wiley India Pvt Ltd(2009)



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Course Outcome:

After learning the course, the students should be able to:

No.	CO statement
CO-1	Understand Android architecture, activities and their life cycle.
CO-2	Apply the knowledge to design user interface using Android UI & Component and understand intents, broadcast receivers and internet resources
CO-3	Understand the concept of different data storage option like SQLite, shares preferences, file and background services.
CO-4	Understand the concept of different designing option for Enhancing user experience with the use of menus, dialogs, notifications, action bar, Text-to speech, Animations
CO-5	Understand the concept of work with Audio, video, camera, SMS and knowledge about Publish and distribute Android Application