

ANDROID SYLLABUS

Duration: 186 hrs

Module1 (Duration: 2 hrs)

- 🕒 Introduction to mobile technologies
- 🕒 Introduction to Android
- 🕒 Android SDK Features
- 🕒 Open Handset Alliance
- 🕒 Android Application Architecture

Module2 (Duration: 2 hrs)

Developing For Android

- 🕒 Android Studio
- 🕒 Emulators – What is an Emulator / Android AVD
- 🕒 My First Android Application
- 🕒 Running and Debugging
- 🕒 Introducing DVM
 - Role and Use of Dalvik Debug Monitor Server (DDMS)
 - Use of Step Filters, Breakpoints, Suspend and Resume
 - How to use LogCat (Verbose, Debug, Info, Warn, Error, Assert)
- 🕒 Adding Library Project and Third Party Libraries into Android Project (Android Studio& Eclipse)

Module3 (Duration: 2 hrs)

- 🕒 Introducing Basic Software Components of Android
- 🕒 Application Manifest Introduction
- 🕒 Android Application Life Cycle

Module4 (Duration: 8 hrs)

- 🕒 Android UI Design
- 🕒 Introducing Views
- 🕒 Introducing Layouts
 - Weight Sum, Padding, Margin, Layout Weight

Module5 (Duration: 16 hrs)

- 🕒 Advanced UI Programming
- 🕒 Android Activity and Activity Lifecycle
- 🕒 Event driven Programming in Android
 - Introducing and programming using Basic Widgets
- 🕒 Creating a splash screen

Module 6 (Duration: 6 hrs)

- 🕒 Menu
 - Popup, Context, Device Menu

🕒 Introduction to Context Class and System Services

🕒 Adapter

Module 7 (Duration: 2 hrs)

Styles and Themes

🕒 Creating and Applying simple Style

- Inheriting built-in Style and User defined style
- Using Styles as themes

Module8 (Duration: 12)

Resources and Assets

- Android Resource
- Using resources in XML and code
- Using Assets

Module9 (Duration: 20 hrs)

🕒 Introducing Intents

- Explicit
- Implicit and Intent Objects
- Intent Flags
- Intent Filter
- Pending Intents

Module10 (Duration: 8 hrs)

🕒 Introducing BroadCast Reciever

🕒 Alarm Manager

Module 11 (Duration: 12 hrs)

🕒 Android Notifications

- Toast
- Dialogs (TimePicker, DatePicker, Progress, Alert)
- Notification Manager and Push Notification

Module12 (Duration: 8 hrs)

🕒 Multimedia Programming using Android

- Multimedia audio formats - Creating and Playing and Recording
- Using Camera
- Multimedia Video formats- Creating and Playing and Recording

Module13 (Duration: 4 hrs)

🕒 Managing Network Connectivity

Module 14 (Duration: 16 hrs)

🕒 Background Threads

- Main Thread and ANR
- Threads running on UI thread (runOnUiThread)
- Handler & Runnable
- AsyncTask

🕒 Introducing Service

Module 15 (Duration: 30 hrs)

🕒 Data Storage in Android

- Shared Preference
 - Internal Storage
 - Introducing SQLite
 - SQLiteOpenHelper and creating a database
 - Opening and closing a database
 - Working with cursors Inserts, updates, and deletes
- 🕒 Content Providers

- Native Content Providers
- Creating Content Providers

🕒 Network Connection

- JSON and Xml parsing

Module16 (Duration :4 hrs)

🕒 Telephony

- Reading Phone device Details
- Reading SIM Details
- Incoming and outgoing call monitoring
- Sending SMS message manually

Module17 (Duration: 10 hrs)

🕒 Fragments

- List Fragment
- Dialog Fragment
- Fragment Transaction
- Preference Fragment

Module18 (Duration: 16 hrs)

- Sensors
- Sensor and Sensor Manager
- Using Accelerometer and Orientation services
- Simple Gestures

Module 19 (Duration :10 hrs)

Location Services

- Location Manager
- Current location and Updates
- Gecoder and Reverse Gecoder

Facilities :

- Modern Lab with Internet Facility.
- Students can do Lab till they pass Online Examination without any extra cost.

Batch Timing: 9 am-5.30 pm / 9 am-1 pm / 1.30 pm-5.30 pm / Saturday Only