Course objective: This course is concerned with the development of applications on mobile and wireless computing platforms.

Introduction: Cost of Mobile Application Development, Importance of Mobile Strategies, Challenges, Myths, Third-Party Frameworks, Mobile Web Presence, Applications

Introduction to Mobility: Mobility Landscape, Mobile Platforms, Mobile apps development, Overview of Android Platform, Setting up the mobile apps development environment with emulator.

Building block of Mobile apps: App user Interface Designing, Layout, User Interface elements, Draw-able, Menu, Activity states and lifecycle, Interaction among activities.

App functionality based user interface: Threads, Asynchronous task, Services-states and lifecycle, Notifications, Broadcast receivers, Telephony and SMS API.

Naive Data Handling: On Device File I/O, Shared preferences, Mobile Databases such as SQLite and enterprise data access.

Sprucing up Mobile Apps: Graphics and animation-custom views, canvas, animation API multimedia-audio/video playback and record, location aware.

Testing Mobile apps: Debugging Apps, White and Black Box Testing and test automation of apps.

Creating Consumable Web Services for Mobile Devices: What is a Web Service, Web Services Languages (Formats), Creating an Example Web Service, Debugging Web Services


Mobile Websites: Choosing a Mobile Web Option, Adaptive Mobile Websites, Dedicated Mobile Websites Mobile Web Apps with HTML5

Android: Android as Competition to itself, Connecting to the Google Play, Android Development Practices, Building an App in Android
**iOS:** iOS Project, Debugging iOS Apps, Objective-C Basics, Building the Derby App in IOS

**Windows Phone 7:** Windows Phone 7 Project, Building an App in Windows Phone 7, Distribution

**Laboratory work:** To develop robust mobile applications and work on related tools and technologies. exploring the application development for different mobile platforms like Android, iPhone, Symbian

**Recommended Books:**

1. Professional Mobile Application Development, Jeff Mcwherter, Scott Gowell, Wrox Publisher, 1st Ed. 2012
2. Sams Teach Yourself Android Application Development in 24 Hrs, Lauren Darcy and Shane Conder, 1st ed.