INT405:COMPUTING PRACTICUM-III

L:0   T:0   P:3   Credits:2

Course Outcomes: Through this course students should be able to

CO1 :: use swift programming and the core frameworks to develop iOS applications

CO2 :: differentiate between various controls used in Xcode

CO3 :: manage web services: facebook, twitter, email and maps in iOS applications

CO4 :: develop applications for iOS using Xcode

List of Practicals / Experiments:

Introduction to iPhone and iOS platform with Swift
- Difference between iOS and MAC OS
- Object-oriented programming
- Declaring & defining classes
- Variables
- Arrays
- Dictionary
- Flow control & conditions
- Methods & messages
- Closure

MVC architecture
- Introduction to Xcode
- Workspace window
- Interface-builder
- Attribute inspector
- Simulator & creating project
- Looking at view-controller
- Understanding outlets
- Actions
- Designing UI
- Application-delegate
- Working with navigator pane
- Utility pane

UIKit controls
- Implementing UIButton
- UITextField and customizing inputs
- UITextView & keyboard handling
- UISwitch
- UISlider
- UISegmented control
- UIImageView
- UIAlertView
- UIActionSheet

- Understanding & working with Views
- Concept of segue
- Multi-view applications
- Passing & receiving data in them
- Calling another view-controller without using navigation-controller
- Creating small application with these controls

TableViews
- UITableView basics
- Implementing simple table
- Customizing TableView cells
- Grouped & indexed sections
- Adding header, footer & image
- Displaying item-selected
- Navigating to another view

iPhone Project templates
- Using navigation controllers
- Implementing UIToolbar and UITabBar in applications
- Playing audio & video files
- Implementing UICollectionView
- Concept of auto-layout

Web Services
- UIWebView
- Invoking web services
- Facebook
- Twitter
- e-Mail
- Displaying maps & monitoring changes using MapKitFramework
- Core Data
- Core Location

Text Books: 1. SWIFT IOS PROGRAMMING (24-HOUR TRAINER) by ABHISHEK MISHRA, WILEY

References: 1. IOS 12 APP DEVELOPMENT ESSENTIALS: LEARN TO DEVELOP IOS 12 APPS WITH XCODE 10 AND SWIFT 4 by NEIL SMYTH, AMAZON.COM