Course Description

COP2658 | iPhone Application Development 2 | 4.00 credits

This intermediate iOS course teaches the principles of iPhone application development for majors in Computer Science, Computer Information Systems, and related disciplines. Students will learn how to create mobile applications that can be deployed to iPhone smartphones, tablets or simulators utilizing Cocoa and X Code for development. Emphasis will be placed on learning the underlying iPhone framework and components in order to create quality mobile applications. Prerequisite: COP2654.

Course Competencies:

Competency 1: The student will demonstrate an understanding of the iPhone Integration Development Environment (IDE) by:
1. Setting up a project using X Code and manipulating the settings to create an iPhone application
2. Utilizing the Interface Builder in X Code to generate NIB or XIB user interface files
3. Changing attributes within the user interface file to customize the user interface files

Competency 2: The student will demonstrate an understanding of the application framework and configuration by:
1. Utilizing the application delegate class to launch the application
2. Describing the application delegate's lifecycle methods and when they are called
3. Use the default system class to change application settings

Competency 3: The student will demonstrate an understanding of inter-application communication by:
1. Demonstrating how to launch one application from another application programmatically
2. Utilizing the pasteboard to pass information from one application to another

Competency 4: The student will demonstrate knowledge of views by:
1. Utilizing the UI View class to create a frame within the window of the main application
2. Animating a view by resizing it and applying animations
3. Setting up resize logic for landscape and portrait orientation
4. Loading and animating images within the view
5. Enabling zooming and scrolling within a single view

Competency 5: The student will demonstrate knowledge of advanced views by:
1. Creating a page control that scrolls between multiple views
2. Utilizing progress and activity indicators to show the user how much of the task has been performed
3. Displaying an alert message utilizing an alert view
4. Utilizing an action sheet to obtain a response from the user
5. Creating a simple picker view that utilizes a spin type of control for user input

Competency 6: The student will demonstrate knowledge of toolbars by:
1. Utilizing the appropriate class to create a toolbar within the application
2. Adding buttons to the toolbar with methods that are called when it is pressed

Competency 7: The student will demonstrate knowledge of controls by:
1. Creating a default button type programmatically and assigning them custom images
2. Implementing a custom slider control that allows the user to select from a range of value
3. Implementing a custom segmented control that allows the user to pick from a set of values

Learning Outcomes:
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively