## COURSE INFORMATION

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| Course Prefix/Number: | **COP2658** | Course Title: | **iPHONE APPLICATION DEVELOPMENT** |
| Number of Credits: | 4.00 | Clock Hours: | |

Course Type: ☐ Lecture ☐ Lab ☒ Lecture/Lab Combo ☐ Internship ☐ Clinical ☐ College Prep.

Degree Type: ☐ B.A.S. ☐ B.S. ☐ A.A. ☒ A.S. ☐ A.A.S.
☐ C.P.P. ☐ A.T.C. ☐ C.C.C. ☐ C.T.C.

## COURSE DESCRIPTION

This course is designed for students majoring 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 XCode for development. Emphasis will be placed on learning the underlying iPhone framework and components in order to create quality mobile applications. Laboratory fee.

| Prerequisite(s): COP2654 | Co-requisite(s): |
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## COURSE COMPETENCIES

**Learning Outcomes Legend:**

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| 1. Communication | 4. Information Literacy | 7. Ethical Issues |
| 2. Numbers / Data | 5. Cultural / Global Perspective | 8. Computer / Technology Usage |
| 3. Critical Thinking | 6. Social Responsibility | 9. Aesthetic / Creative Activities |
| | | 10. Environmental Responsibility |

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| **Competency 1:** The student will demonstrate an understanding of the iPhone Integration Development Environment (IDE) by: | **9** |
| 1. Setting up a project using XCode and manipulating the settings to create an iPhone application.<br>2. Utilizing the Interface Builder in XCode to generate NIB or XIB user interface files.<br>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: | **3** |
| 1. Utilizing the application delegate class to launch the application.<br>2. Describing the application delegate's lifecycle methods and when they are called.<br>3. Using the defaults 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.<br>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.<br>2. Animating a view by resizing it and applying animations.<br>3. Setting up resize logic for landscape and portrait orientation.<br>4. Loading and animating images within the view.<br>5. Enabling zooming and scrolling within a single view. | |
| **Competency 5:** The student will demonstrate knowledge of advanced views by: | **2** |
| 1. Creating a page control that scrolls between multiple views.<br>2. Utilizing progress and activity indicators to show the user how much of the task has been performed.<br>3. Displaying an Alert message utilizing an alert view.<br>4. Utilizing an action sheet to obtain a response from the user.<br>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: | **8** |
| 1. Utilizing the appropriate class to create a toolbar within the application.<br>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.<br>2. Implementing a custom slider control that allows the user to select from a range of value.<br>3. Implementing a custom segmented control that allows the user to pick from a set of values. | |