

**Course Objectives/Course Outline**  
**Spokane Community College**

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**Course Title: Mobile IV-IOS 1**

**Prefix and Course Number: CIS 221**

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**Course Learning Outcomes:**

**By the end of this course, a student should be able to:**

- Use proper language coding techniques in Swift
- Build iOS smartphone/tablet applications that utilize the native interface
- Test applications using virtual devices as well as physical iOS smartphone/tablet devices
- Utilize native database systems for storing user data and preferences

**Course Outline:**

- I. Introduction to Swift
  - A. Installation and versions
  - B. XCODE Integrated Development Environment (IDE) usage
  - C. Writing a first Swift native application
  - D. Testing application on a virtual mobile device
  - E. Testing application on a physical mobile device.
- II. Responsive Application Design
  - A. Developing screen size agnostic applications for both portrait and landscape modes
  - B. Using native user controls and screen elements
  - C. Aligning and positioning elements dynamically based on screen sizes
  - D. Modifying and interacting with elements dynamically
- III. Introduction to Files and Databases
  - A. Using local file storage
  - B. Storing data in a database on the device
  - C. Using alarms and other notification features on the device
  - D. Graphing data