

# Course Alignment Matrix

**Originating College:** Collin College

**Course Title:** Introduction to iOS Mobile Development: Human Interface, Frameworks, Data, and Distributing Apps

**Course Number:** ITSE1370AC

**Recommended Text/Materials:** Mac with OS (Lion or Mountain Lion) capable of running XCode

Competencies (these can be from the institution, national standards, industry standards, etc.)	Lesson(s)/Modules presented & assessed	Associated Open Resources & Development Ideas (Optional - this column is helpful when the document is used as a course design worksheet for new development)
1.0 Create basic template-based iOS applications using current iOS SDK.	1, 2, 3	
2.0 Create user interfaces for the iPhone/iPod Touch and iPad that follow Apple Human Interface Guidelines.	1, 2, 3	
3.0 Create multi-view applications using storyboards.	2, 3, 4	
4.0 Describe development cycle and approval process for iOS applications.	5	
6.0 Experience in foundation of developing appropriately using Objective-C and Cocoa Touch	4	
9.0 Prioritize and handle multiple tasks	1, 2, 3, 4, 5	
10.0 Excellent analytical and creative problem-solving skills	1, 2, 3, 4, 5	



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11.0 Work independently on assigned tasks	1, 2, 3, 4, 5	
13.0 Design a user interface	1, 2	
14.0 Incorporate the principles of visual design	1, 2	



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Lesson/ Module	Topics	Lesson Objectives	Assessment & Points	Competencies/Learning Outcomes
1	iOS Human Interface Guidelines, Part 1	<ol style="list-style-type: none"> <li>1. Describe the application definition statement and what is included in the statement.</li> <li>2. Identify the ways that users hold their devices.</li> <li>3. Identify reasons to follow principles outlined in the Human Interface Guidelines document.</li> <li>4. Identify the differences between points and pixels for standard resolution and for retina resolution.</li> <li>5. Discuss when to create custom controls.</li> <li>6. Explain saving documents and the HIG preference for user generated content to be saved automatically.</li> <li>7. Recognize guidelines presented within the UI Design Basics section of the HIG.</li> <li>8. Identify the standard meaning of a pinch, swipe, drag and tap.</li> </ol>	Exercise - Creating an Application Definition Statement (20 pts) Quiz 10 (5 pts)	01, 02, 09, 10, 11, 13, 14
2	iOS Human Interface Guidelines, Part 2	<ol style="list-style-type: none"> <li>1. Identify the function of the available iOS technologies.</li> <li>2. Identify the content view that will appropriately display data given a design scenario.</li> <li>3. Identify views that are used primarily for interaction and are temporary.</li> <li>4. Differentiate the use guidelines between a navigation bar, toolbar and a tab bar.</li> </ol>	Practice —Tab It (10 pts) Quiz 11 (5 pts)	01, 02, 03, 09, 10, 11, 13, 14



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		<ol style="list-style-type: none"> <li>5. Demonstrate how to add a tab with an icon and title that is associated with a scene to the tab bar.</li> <li>6. Create an application that uses the Tab Bar template.</li> </ol>		
3	Frameworks	<ol style="list-style-type: none"> <li>1. Define framework.</li> <li>2. Add a framework to a project.</li> <li>3. Identify Core Location and MapKit frameworks.</li> <li>4. Identify the different ways to get a location on an iOS device.</li> <li>5. Define longitude, latitude and altitude.</li> <li>6. Identify which location method is the most accurate.</li> <li>7. Identify the effect of using a lesser degree of accuracy in designing iOS apps.</li> <li>8. Add annotations to a map app.</li> </ol>	<p>Practice—Map It (10 pts)</p> <p>Practice—Where Is This (10 pts)</p> <p>Quiz 12 (5 pts)</p>	01, 02, 03, 09, 10, 11
4	Handling Data	<ol style="list-style-type: none"> <li>1. Define data persistence.</li> <li>2. Identify and differentiate among the different methods discussed for handling data persistence on the iPhone.</li> <li>3. Identify the subfolders in the iOS applications folder and purpose of each.</li> <li>4. Explain the purpose of an application’s sandbox and how this purpose impacts the application’s design and functionality.</li> <li>5. Differentiate between single-file persistence and multiple-file persistence.</li> <li>6. Discuss two protocols used in archiving data persistence and identify which of these protocols is required and which is</li> </ol>	<p>Practice—Handling Data (10 pts)</p> <p>Quiz 13 (6 pts)</p>	03, 06, 09, 10, 11



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		<p>optional.</p> <p>7. Discuss the advantages and disadvantages of using SQLite3.</p> <p>8. Discuss the advantages and disadvantages of using Core Data.</p>		
5	Distributing Apps	<ol style="list-style-type: none"> <li>1. Identify the purpose of iTunes Connect.</li> <li>2. Identify when beta testing should occur once development of app is complete.</li> <li>3. Identify the steps required to distribute an app using iTunes Connect.</li> <li>4. Identify the income percentage that Apple receives from any app.</li> <li>5. Explain the way price levels work with iOS apps.</li> <li>6. Identify how to determine if an app contains encryption.</li> <li>7. Identify the purpose of the application description.</li> <li>8. Recognize the type of information needed to set the primary category and secondary category for an app.</li> <li>9. Identify tips for improving app ratings and requirements for submitting an app in iTunes.</li> </ol>	<p>Practice—My Gallery (10 pts)</p> <p>Quiz 14 (5 pts)</p>	04, 09, 10, 11
6	Final Exam		Final Exam (100 pts)	



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