

# Syllabus

<b>Course Title:</b> Introduction to iOS Mobile Development: Human Interface, Frameworks, Data, and Distributing Apps	<b>Course Number</b> (If applicable): ITSE1370AC
<p><b>COURSE DESCRIPTION:</b> This is the third of a series of three courses that explores developing applications for iOS based devices such as iPhone, iPod Touch and iPad. Course will provide an overview of iOS development from use of current iOS SDK, to design of applications and industry business practices. Prior programming experience in either C or an Object-Oriented Programming language is required for this course.</p> <p><b>Note:</b> There is a “Final Exam” to assess student learning across the three courses (ITSE1370AA, ITSE1370AB, ITSE1370AC) occurs at the end of this course which is the summative assessment of the series of three 3 courses.</p>	
<p><b>PREREQUISITES:</b> ITSE1370AA iOS Mobile Development: Overview, iTunes, Xcode, Objective-C, and Cocoa and ITSE1370AB Introduction to iOS Mobile Development: Layout, Touch &amp; Gestures, Storyboards &amp; Segues, and iPad &amp; Universal Apps</p>	
<p><b>REQUIRED MATERIALS:</b> Mac with OS (Lion or Mountain Lion) capable of running Xcode.</p>	
<p><b>ADDITIONAL RESOURCES</b> (if applicable):</p>	
<p><b>LEARNING OUTCOMES/COMPETENCIES:</b></p> <ol style="list-style-type: none"> <li>1.0 Create basic template-based iOS applications using current iOS SDK.</li> <li>2.0 Create user interfaces for the iPhone/iPod Touch and iPad that follow Apple Human Interface Guidelines.</li> <li>3.0 Create multi-view applications using storyboards.</li> <li>4.0 Describe development cycle and approval process for iOS applications.</li> <li>5.0 Evaluate iOS applications from the iTunes App Store.</li> </ol>	

<p><b>COURSE ASSESSMENT:</b></p> <p><b>Grading Scale</b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="width: 70%;">Category</th> <th style="width: 30%;">Points</th> </tr> </thead> <tbody> <tr> <td>Quizzes</td> <td style="text-align: center;">26</td> </tr> <tr> <td>Practices</td> <td style="text-align: center;">50</td> </tr> <tr> <td>Exercises</td> <td style="text-align: center;">20</td> </tr> <tr> <td>Final Exam</td> <td style="text-align: center;">100</td> </tr> <tr> <td style="text-align: center;"><b>Final Grade</b></td> <td style="text-align: center;"><b>196</b></td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="width: 50%;">Percentage</th> <th style="width: 50%;">Grade</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">90-100</td> <td style="text-align: center;">A</td> </tr> <tr> <td style="text-align: center;">80-99</td> <td style="text-align: center;">B</td> </tr> </tbody> </table>		Category	Points	Quizzes	26	Practices	50	Exercises	20	Final Exam	100	<b>Final Grade</b>	<b>196</b>	Percentage	Grade	90-100	A	80-99	B
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70-79	C	
60-69	D	
Below 60	F	

## COURSE SCHEDULE:

Lesson	Lesson Title & description	Learning Outcomes	Assignment
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 (HIG) 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 Quiz 1
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> <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>	Practice —Tab It Quiz 2
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>	Practice—Map It Practice—Where Is This Quiz 3



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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 optional.</li> <li>7. Discuss the advantages and disadvantages of using SQLite3.</li> <li>8. Discuss the advantages and disadvantages of using Core Data.</li> </ol>	Practice—Handling Data Quiz 4
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>	Practice—My Gallery Quiz 5
6.	Final Exam		Final Exam



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