CompSci 497: Mobile App Development - Spring 2014

Course Description

A project-intensive course on mobile development using iOS as a platform. Overview of mobile platforms and their characteristics, mobile interface design and best practices using such technologies as GPS, camera, persistence, notifications and others. Software used for course assignments requires a Mac so students must have their own.

PREREQS: COMPSCI 321

Objectives

1. Become proficient in the major technologies and paradigms of mobile application development using iOS.
2. Develop experience creating real world mobile applications.

Requirements

The following items are required for this class:

- Intel-based Mac
- Xcode
- Github Account

Recommendations

The following items are not required but will help in developing mobile applications

- An iOS device (iPad, iPhone or iPod Touch)
- iOS developer account

Schedule

Date	Description	Assignment Due	Reading
Aug	Introduction to iOS Xcode 10 Overview, Git		
	Introduction to Cocoa Touch, iOS devices, device capabilities, OS versions and differences.		
Sept 3	Intro to Swift . Views and View Controllers (classes, variables, properties, ARC, class vs instance methods)	Assignment 1 Due	Chapter 1
	Swift Advanced (categories, protocols, selectors, blocks, delegates)		
	Architecting iOS Apps	Assignment 2 Due	
	GPS and MapsView		
	Designing iOS Apps	Assignment 3 Due	
	CoreData		
	TBD		
	View Controllers, Xibs and storyboards		
	Push Notifications		
	Camera & Popovers		
	TBD		
	TBD		
	TBD		
	Instruments and debug tools		

	Saving State and Prefs, Archiving, Encoding		
	App Store Submission		
	TBD		
	TBD		
	App Store Marketing		
	Background tasks, local notifications		
	TBD		
	TBD		
	TBD		
	TBD		
	TBD		
	TBD		
	TBD		
	TBD		
	TBD		
	TBD		

Attendance	10%
Homework	40%
Projects	50%

Course Requirements

- Completing all requirements will yield a grade of 80%. Going above and beyond, adding features not taught in class, being creative, adding additional items to the requirements can yield the remaining 20% or more.
- Attendance is required. Email me prior to absence to get a link to the recorded course.
- Project source code must be in your GitHub repository and shared with BSUMobileDev (MichaelZiray@BoiseState.edu)
- Repositories should be named as such:[LastName]-2019-Fall
- The assignment must be able to be built in Xcode. I will pull your code from Git, open and build it in Xcode. Failure to run or compile could result in a grade of zero.

- Your app must work and appear appropriately on any iPhone Simulator.
- Your app must work in different orientations for both phone and tablet. This means if you rotate the device to landscape that your interface displays in landscape mode (or locks portrait).
- Each assignment requires a git tag or comment your commit to show me it's your final commit
- You will be graded on:
  - If your app compiles properly straight from Git
  - If your app looks and feels like a proper iOS app (ask if you have questions about this)
  - Rotation works
  - If your app functions on both iPhone and iPad sized iOS devices
  - Each assignment will have a grading rubric it will be graded against
- Code quality. It should be obvious to me what your code does. If there's a variable or method name that is confusing, points will be taken off. Your code should be self documenting but feel free to add comments if needed.

Discord

https://discord.gg/qHnsmKG