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	Resources
Aug 27	Introduction to iOS Xcode 10 Overview, Git		
Aug 29	Introduction to Cocoa Touch, iOS devices, device capabilities, OS versions and differences.		LiveStream
Sept 3	Intro to Swift . Views and View Controllers (classes, variables, properties, ARC, class vs instance methods)	Assignment 1 Due	Chapter 1
Sept 5	Swift Advanced, View Controllers and UIKit		LiveStream
Sept 10	Layout Constraints, UIKit, Apple announcements	Assignment 2 Due	
Sept 12	Collections, Optionals, planning an app, prototyping apps		SwiftUI Tutorials
Sept 17	Optionals, additional view controllers	Assignment 3 Due	EA Tutorial
Sept 19	Workspaces and CocoaPods		Live Stream
Sept 24	Data persistence (Plists, JSON, User Defaults)		
Sept 26	Web Services (ReST, JSON, APIs)		Live Stream
Oct 1	TableViewControllers	Assignment 4 Due	Recorded
Oct 3	Core Data		Live Stream
Oct 8	Core Data		EA Tutorial
Oct 10	Guest Speaker		Live Stream
Oct 15	Core Data Review App		

Oct 17	Location and Maps, Permissions		Live Stream
Oct 22	Camera and Images		
Oct 24	WebViews	Assignment 5 Due Oct 27.	Live Stream
Oct 29	Swift Advanced		
Nov 5	TBD		Live Stream
Nov 7	TBD		
Nov 12	TBD		Live Stream
Nov 14	TBD		
Nov 19	TBD		Live Stream
Nov 21	TBD		
Nov 26	TBD		Live Stream
Nov 28	TBD		
Dec 3	TBD		Live Stream
Dec 5	TBD		
Dec 10	TBD		Live Stream
Dec 12	TBD		
	TBD		

Attendance	10%
Assignments	70%
Final Project	20%

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