

COS 497 - Independent Study Mobile Application Development

Course Overview

This independent study will follow the Stanford CS193P course materials, developing expertise in Apple iOS or Android mobile device application development.

Attached are the syllabus and course overview for Stanford's CS193P course. The only significant changes are administrative in nature and discussed in this document.

Timeline

The syllabus from Stanford will be used as the basis for study. The course dates will be adjusted to match USM's term. We will meet regularly, tentatively once per week on Friday afternoon, to discuss the week's materials, lecture, and assignment(s).

Instructor

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Prerequisites

Instructor approval. Students should have completed introductory COS course sequence, COS 160, COS 161, COS 250, etc. and be very familiar with Object Oriented programming, Java being our instruction language at USM. The course will require learning Objective-C and an entirely new API for development.

For iOS: Students will need access to a Macintosh computer with Xcode development environment. An iPhone or iPod Touch, though not required, is highly recommended. The iPhone SDK provides a simulator that can be used for all assignments.

We are enrolled in the iPhone Development University program and can provide certificates for testing on a limited number of devices. This program is for academic development and cannot be used to deploy or sell applications. If you want to sell applications or distribute them you can enroll as an individual iPhone developer in Apple's program at <http://developer.apple.com>.

For Android: Students will need access to a computer with the Java/Eclipse development environment. An Android device, though not required, is highly recommended. The Android emulation environment is very slow, building and testing on an actual device will be much more rewarding.

All the development tools for Android development are free via Google and the Eclipse Project at <http://developer.android.com/sdk/index.html> and <http://www.eclipse.org>.

Lecture

There will be no local lecture. Students are required to follow the video lectures and slides from Stanford's course for completing the work. These are available through iTunes and are free. We will be discussing the lectures at our weekly meetings.

The videos are useful for Android development to understand the assignments and the developer interviews and insights. They are not useful for the Objective-C and iOS SDK information. Material on the Android equivalents will be developed with the students through the course for future use.

Web Site & Handouts

The vast majority of handouts and information are from Stanford's site for the class, <http://cs193p.stanford.edu>. In addition, local materials will be hosted and available from the instructor's site for the course, <http://people.usm.maine.edu/houser/cos497>.

Assignments

Assignments will be due on Friday afternoon as per the modified schedule unless otherwise altered. Use the Stanford syllabus as a guide.

Grading

Grading will be based on the same check model used in the Stanford course with a final grade based on the same 60%/40% model. Roughly 0 = F, v- = C, v = B, v+ = A.

Frequently Asked Questions

Acknowledgements

This class would not be possible without the materials provided on-line and free from Stanford University and the faculty/staff there that made the original version. <http://cs193p.stanford.edu>.