

CSC 581: Mobile App Development

Spring 2018

See online syllabus: <http://dave-reed.com/csc581> (also on BlueLine)

Course goals:

- to apply existing programming skills to the mobile domain, addressing challenges such as memory restrictions, touch-based interfaces, and rapidly evolving architectures
- to appreciate the wide range of tools and platforms available for mobile development, and be able to identify appropriate tools for various tasks
- to be proficient with the XCode development environment and the Swift programming language
- to design and implement apps that address real-world needs, using best practices in design and software engineering

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General plan

for this course, we will focus on developing native apps for iOS (Apple's mobile operating system, for iPhones & iPads)

- we will touch briefly on Android and Web/hybrid approaches during the semester (e.g., AppInventor, PhoneGap/Adobe Cordova, ...)
- Apple has developed a robust IDE (XCode) and programming language (Swift), with an extensive tool kit (UIKit), for developers

the format of the course will be hands-on

- Apple Education has created a free, tutorial-based book
- we will be following that book, working on exercises and labs in class
- I will augment with additional examples, assignments, and readings
- in the 2nd half of the course, you will propose, design, and implement your own app
- we will have a class demo show in the last week



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Installing software

the Apple IDE, Xcode, only runs on Macs

- if you have a MacBook, bring it to class and use for development
- if not, you will need to use one of the lab computers (or 2nd floor of Hitchcock)

note: you will need an Apple ID to download the software and book

to install Xcode: launch the App Store on your Mac

- ✓ search "XCode" and click the Get button to download

to install the interactive book: launch the iBooks Store on your Mac

- ✓ search "Mobile App Development for Swift" and click the Get button to download

IF YOU HAVE A MAC, INSTALL BOTH BY NEXT CLASS

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Demo

as a sneak peek, let's develop a (really) simple app using XCode

HELLO WORLD APP!

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