References

CS193P iPhone Application Development Course Lecture notes, Tuesday Jan 5, 2010 by Cannistraro & Shaffer, Stanford University from iTunes University
Course Mechanics

http://blackboard.sdsu.edu/

Crashing
Screencasts & Lecture videos
Prerequisites
Blackboard
In-class verses on-line course
Grading
Project
Xcode & Macs
Blackboard Demo
How to ask questions on-line

Use Backboard Discussion Board

Only send email if personal in nature
Grading

Course has 1000 points

7 assignments (400 points)
   See syllabus for due dates

1 exam (250 points) October 25

Semester project (350 points)
Semester Project

iPhone or iPad app

Teams of 1 or 2

Start thinking about project ideas

Grading

Originality (5% or 17.5 points)

Size of project (15% or 52.5 points)

Quality of UI (40% or 140 points)

Working code (30% or 105 points)

Quality of code (10% or 35 points)
Xcode 3, 4.1

Xcode 3
Free for Mac OS 10.6
Download from Apple developer site
See course links in Blackboard

Xcode 4.1
Better than Xcode 3
Interface changed
Future
Xcode 4.2

Due in Fall with iOS 5

Major change

Must have upgrade
  ARC
  Storyboard
  Greatly simplifies iOS development

Beta available if paid developer

We will use Xcode 4.2 when available

So save time and start with Xcode 4.1

Monday, August 29, 2011
Goal

Learn how to create iPhone/iPod Touch/iPad apps
Mobile World

5 billion mobile phones

Mobile space changing rapidly
Scale Changes Things
Relative Screen Sizes - Pixels

- iPhone: 480 * 320
- iPad: 768 * 1024
- 20 inch monitor: 1680 * 1050
Relative Screen Sizes - Actual Dimensions

iPhone
1 7/8 * 3

iPad
5 3/4 * 7 3/4

20 inch monitor
17 1/4 * 10 3/4
Restrictions
## iPhone

<table>
<thead>
<tr>
<th></th>
<th>iPhone</th>
<th>iPhone 3G</th>
<th>iPhone 3GS</th>
<th>iPhone 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor Speed</td>
<td>412 MHz</td>
<td>412 MHz</td>
<td>600 MHz</td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td>128 MB</td>
<td>128 MB</td>
<td>256 MB</td>
<td>512 MB</td>
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Mobile Phone Application Developers & money

Lots of jobs now
Ways to create Mobile "apps"

Native Apps
  Objective-C - iPhone
  Java - Android

HTML 5, CSS, & Javascript Apps
  Apps installed on Device

Web Apps
  Web pages from Network
Stanford iPhone Course


Video & Audio of lectures
## What we have to Learn

<table>
<thead>
<tr>
<th>Language</th>
<th>Objective-C</th>
<th>UI</th>
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<tbody>
<tr>
<td>Frameworks</td>
<td>Foundation</td>
<td>UIKit</td>
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<tr>
<td>Tools</td>
<td>Xcode</td>
<td>Interface Builder</td>
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Language

Objective-C

Super set of C

Used for iPhone & Mac development

Classes & objects

Some odd syntax
Tools

Xcode, Interface Builder, Simulator

Require Mac OS 10.6.x

Free download at Apple iPhone Dev Center

Part of iOS download
Simulator

Part of iOS SDK

Runs iPhone apps on Mac

No need for iOS device
Running Apps on Device

Simulators are not perfect

Real development requires testing on devices

Need certificate to run on a device

SDSU is an Apple University Developer

So can generate certificates for class