*Pace University*

Spring 2015

**CS3xx Mobile Application Development**

**Instructor**

**Class Meeting**

**Office Hours**

**Prerequisites:**  Grade of   C or better in CS 122, git and GitHub basics, familiar with developing in an IDE and using the command line

**Course Credits 4**

**Description**

This course gives an overview of native mobile development, focusing on both iOS and Android platforms. We will discuss development for various mobile devices including: phones, tablets, tele-health devices, and sensors. The software/hardware co-design approach of application development including time and performance optimization and tradeoff will be emphasized. Students will learn IDE basics and app functionalities like app navigation, interface design, information display, persistent data, lists and tables, integrating APIs, features like location awareness, data storage and retrieval. The distribution of mobile applications and business models for monetization will be covered. Students will develop an application for their chosen platform.

**Textbooks (optional):**

*Learning Mobile App Development, A Hands-on Guide to Building Apps with iOS and Android*

By Jakob Iversen, Michael Eierman

ISBN-13: 978-0-321-94786-4 edition December 2013

**Recommended readings:**

* developer.apple.com
* developer.android.com

**Recommended readings:**

* developer.apple.com
* developer.android.com

Recommended Readings:

* developer.apple.com
* developer.androis.com

**Recommended readings:**

* developer.apple.com
* developer.android.com
* [~~http://www.codelearn.org/android-tutorial#tutorial~~](http://www.codelearn.org/android-tutorial#tutorial)

**Learning Outcomes and Major Topics**

After taking this course, the students should be able to：

o understand the software/hardware approach in mobile application design;

o understand mobile interface, architecture, and hardware;

o understand operating systems and compilers for mobile systems;

o understand how to store and retrieve date for distributed mobile systems;

o understand how to handle network and web access for mobile applications;

o understand how to write applications on mobile systems.

**Assignments Submission**

Assignments will be posted on the class webpage and announced in class.  Open discussions in the class google group is encouraged. But, the work and submission is individual. Your submission will be checked for evidence of original effort, but not necessarily for correct answers. A penalty of 10% deduction each day for late submission of assignment will be given and after 5 days, 0 point will be given. Assignments should be submitted through GitHub. Students are encouraged to participate in Open Source contributions.

**Course Projects**

Submission:

**Grading Scheme**

|  |  |
| --- | --- |
| Assignments and Quizzes | 25% |
| Course Project | 25% |
| Exams | 50% |