MOBILE APPLICATIONS DEVELOPMENT

EECS 480Z

COURSE DESCRIPTION: Understanding of the mobile application architecture, operating systems, and platforms. Challenges and opportunities in mobile application development. Evaluation of the leading mobile platform frameworks with respect to their features, functions, libraries, support, and ease of development. Software design for mobile applications in gaming, multimedia, entertainment, and enterprise applications. Development of enhanced user experience in a multi-touch, multi-sensor (accelerometer, gyroscopes, camera, geo-location) environment. Understanding of software development environments and testing tools, and use of wireless connectivity and data in mobile applications. Development of or extension of a modest application based on a major mobile platforms (iOS, Windows Phone 7, or Android). (3 credit hours)

FACULTY: To be announced

TEXTBOOK: Reading references posted on the Blackboard site. There is no suitable, recent textbook.

COURSE OBJECTIVES: This course is designed to provide a strong foundation in development of mobile applications.

COURSE GRADE:
Exams (30%): 3 Exams, 1 every 3-4 weeks
Homework (40%): 4 assignment, ~biweekly
Project (30%): Building on the homework to integrate and instill the learning experience.

WEEKLY COURSE SCHEDULE:
1. Introduction to mobile application architecture
2. Fundamentals of mobile platforms
3. Challenges/opportunities in mobile applications
4. Mobile operating systems
5. Evaluation of major mobile platforms in terms of features, functions, libraries and support
6. Enhanced user experience
7. Software integration with multi-touch, multi-sensor mobile platforms
8. Use of wireless connectivity and data in mobile applications
9. Software development environments
10. Software testing tools
11. Application design for gaming and multimedia
12. Application design for communications, entertainment
13. Application design for enterprise tasks
14. Development/extension of a modest application (in iOS/Android/Windows mobile)
15. Development/extension of a modest application

University Student Ethics Policy
http://studentaffairs.case.edu/ai/policy.html
Violations of the Student Ethics Policy will result in failure in the assignment in question or the course, or referral to the academic integrity board as per university policy.

All forms of academic dishonesty including cheating, plagiarism, misrepresentation, and obstruction are violations of academic integrity standards. Cheating includes copying from another's work, falsifying problem solutions or laboratory reports, or using unauthorized sources, notes or computer programs. Plagiarism includes the presentation, without proper attribution, of another's words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor's consent, an assignment in one class previously submitted in another. Misrepresentation includes forgery of official academic documents, the presentation of altered or falsified documents or testimony to a university office or official, taking an exam for another student, or lying about personal circumstances to postpone tests or assignments. Obstruction occurs when a student engages in unreasonable conduct that interferes with another's ability to conduct scholarly activity. Destroying a student's computer file, stealing a student's notebook, and stealing a book on reserve in the library are examples of obstruction.