

Course Title: Mobile Application Development
Course Number: COP 4655 (U01)
Course Times: M/W 1825-1940
Room: ECS 138
Syllabus: <http://users.cis.fiu.edu/~luiss/class/2012/spring/cop4655/Syllabus-COP4655-Spr12.pdf>

Instructor: Steve Luis
Office Number: ECS 282
Office Hours: M/W: 17:30 – 18:15 or by appt. Friday afternoon
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Prerequisite: IT Majors: COP 4814 Component-Based Software Development
CS Majors: COP 4338 Programming III and advisor permission

Prerequisites:

- Master the design and implementation of classes using inheritance and polymorphism.
- Master the use and implementation of Application Programming Interfaces.
- Master analyzing problems and writing programs in an object oriented language providing solutions to those problems using the above features.

Course Outcomes:

- Master mobile application framework (Cocoa Touch, Foundation, ...)
- Master the development of mobile user interfaces (UIKit,...).
- Master controller management (MVC, Delegation, ...).
- Be familiar with data management techniques (Property Lists, Core Data,...)
- Be familiar with device network and sensor related API services (CoreMotion,...)

Required Textbooks:

Programming in Objective-C (Third Edition)

An introduction to the Objective-C language for iOS and Mac OS X development

Author: Stephen G. Kochan ISBN 0321711394

Publisher's Website: <http://www.informit.com/store/product.aspx?isbn=0321711394>

Author's Website: <http://classroomm.com/objective-c/>

iOS Programming: The Big Nerd Ranch Guide. (Second Edition)

Author: Joe Conway ISBN 03-21773772

Publisher's Website: <http://www.informit.com/store/product.aspx?isbn=0321773772>

Author's Website:

http://www.bignerdranch.com/book/ios_programming_the_big_nerd_ranch_guide_nd_edition_

Required Resource: <http://developer.apple.com/> -- obtain a free developer account.

Recommend Textbooks:

See class moodle site for recommendations

Online LMS: <https://moodle.cis.fiu.edu/v2.1/course/view.php?id=140>

Policies:

<u>Evaluation:</u>	3x Exams	(40%)
	7x Prog. Assignments	(30%)
	Quizzes	(15%)
	Team Project	(10%)
	Participation	(5%)

NOTE: All assignments will be posted on Moodle.

Scale: A:90 | A-:87 | B+:84 | B:80 | B-:75 | C+:70 | C:65 | C-:60 | D+:55 | D:50 | D-:40

Grading: Your lowest exam and programming assignment score is dropped. Participation, quizzes, and Team Project scores are not dropped.

Examinations: Must be taken at the published times. No make-up exams will be offered.

Participation: You will be asked to share knowledge about course subject matter online and in class.

Attendance: I expect you to attend all classes. If you miss a class it is your responsibility to obtain lecture notes from a classmate and review class material on Moodle.

Classroom Environment: Entering class late, texting and cell phone use is disruptive to the learning environment. Please be on time and mute your cell phones. Tardiness and cell phone use will have a negative impact to your participation grade.

Lab: Please use the iMacs in ECS 237 and 241 that are running Mac OS 10.6.x Snow leopard and Xcode 4.1 with iOS 4.3 SDK.

Equipment Assignment: You will be assigned an iPad to develop applications on. You will be required to complete an equipment loan form and return the equipment if you drop, withdraw or at the end of the term. You will be financial responsible for the return of the iPad and will receive an Incomplete grade if it is not returned on time.

Personal Equipment: If you use your personal equipment to complete the assignment it is your responsibility to test your programs on the lab equipment to verify it runs properly.

Debugging: I don't debug your programs since this is an important part of your learning experience. Please refer to Xcode documentation, built-in programming debugger and assistant, Apple Developer Site, and a multitude of developer forums for information.

Submitting Assignments: Do not submit programs with warning or errors. Submit your assignment by uploading a zip file of your assignment directory on Moodle in the Week section the program is due. Assignments must be turned in by the published due dates. Assignments will not be accepted late for any reason. No make-up assignments will be offered.

Course Assessment: <http://www3.cis.fiu.edu/services/CES/>

Team Project: (1) Two or three person teams will be assigned by ranking each student based on their current grade then pairing students from the highest to lowest scoring. You will be paired with a student who performed as well as you have in the class. (2) Each team must make an appointment to review the final project on Demo Day.

Academic misconduct: please refer to the FIU Policy. This applies in particular to examinations and assignments. <http://www2.fiu.edu/~oabp/misconductweb/1acmisconductproc.htm>

Incomplete grades: please refer to FIU Policy: <http://carta.fiu.edu/Incompletes.pdf>

Academic Affairs General Policy Statement: Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

Important Academic Dates for Spring 2012

http://registrar.fiu.edu/fileadmin/templates/Registration/images/Forms/Records/2011-2012_Academic_Calendar.pdf

Monday, January 9: Classes Begin
Monday, January 16: University Closed – Martin Luther King Holiday
March 12-17: Spring Break
Monday, March 19th: Deadline to drop course with DR grade.
April 23-28th : Final Exam Week

Spring 2012 Final Exam Schedule:

<http://classroom.fiu.edu/forms/Spring%202012%20Final%20Exam%20Matrix.pdf>

Wednesday, April 25th, 2012 at 5-7pm

Tentative Class Schedule: 16 Weeks:

1	M	1/9		Course Overview & Syllabus
2	W	1/11		Xcode and Objective-C Intro
3	W	1/18		More Objective-C and Debugger
4	M	1/23	P1 Due	Foundation Classes
5	W	1/25		More Foundation Classes
6	M	1/30	P2 Due	Memory Management
7	W	2/1		Protocols and Views
8	M	2/6	P3 Due	Application & View Controller Life Cycle, Navigation

9	W	2/8		Exam 1
10	M	2/13		Controllers, iPad, Universal Apps
11	W	2/15		Gestures
12	M	2/20	P4 Due	Image View, Web View, Scroll View
13	W	2/22		Table View
14	M	2/27		Persistence
15	W	2/29		Core Data and Table Views
16	M	3/5	P5 Due	Blocks and Multithreading
17	W	3/7		Exam 2
18	M	3/19		Modal Views, Text input
19	W	3/21		Web APIs
20	M	3/26	P6 Due	Team Project Overview
21	W	3/28		Animation
22	M	4/2	P7 Due	Segmented Control Alerts
23	W	4/4		Media A/V
24	M	4/9		Core Motion: Accelerometer and Gyros
25	W	4/11		U/I Design
26	M	4/16		Core Location & Map Kit
27	W	4/18		Review
28	M	4/23		NO CLASS --- EXAM WEEK
29	W	4/25		5-7PM -- Exam 3
30	TH	4/26		Project Demo Day (Appt. necessary)

Program Submission Procedure: Upload your .zip file using your FIU computer username followed by program assignment number, eg: smith01-p1.zip. Always name your Xcode projects in the same manner. When you save the project name, use: Smith01P1.

Grading procedure:

1. Does the program compile without errors or serious warnings (30%)? No, then stop.
2. Does the program behave according to the specification of the assignment (30%)? No, then stop.
3. Does the coding meet requirements and does the program display good design practice? (25%)
4. Is the program well documented and follows the Programming Style Guide? (15%)

Programing Identification: Please include the following comment at the top of each program file you submit.

```
// PROGRAMMER:      John Smith
// PANTHERID:       1234567
// CLASS:           COP 465501 TR 5:00
// INSTRUCTOR:     Steve Luis ECS 282
// ASSIGNMENT:     #1 Sample Program
// DUE:            Thursday 09/12/11
//
```