



**FLORIDA INTERNATIONAL UNIVERSITY
UNIVERSITY CURRICULUM COMMITTEE**
Proposal for a Course Change

DO NOT TYPE IN THIS BOX
Bulletin #: _____
Academic Year: _____

PART I. FILL OUT THIS SECTION COMPLETELY

1. School/College _____
Div./Dept. in Which Taught _____

2. _____
Alpha Prefix 1st Digit Last 3 Digits "C"-lec-lab "L"-Lab Cr. Hrs.

3. Present Course Title _____

PART II. FILL OUT CHANGE INFORMATION ONLY

Change Effective ____ / ____ / 20__

4a. New Course Title _____

b. New Abbreviated course Title (for computer class schedules, transcripts)
LIMITED TO 25 Characters (including spaces)

5a. _____
New Alpha Prefix New 1st Digit New Last 3 Digits Change "C"-lec-lab "L"-Lab

5b. Change Credit Hours: From ____ To ____

6. New Catalog Description/Major Topics (not to exceed 200 characters including spaces)
College of Medicine and College of Law: Attach description not exceeding 1,000 characters including spaces.

7. New Prerequisite(s): _____

8. New Corequisite(s): _____

9. Explain Reclassification Request:

10. Does this proposed change impact the assessment process of a program or certificate? If yes, then send notification to assessment@fiu.edu.

PROPOSAL REQUESTED BY:

Faculty Contact _____ / ____ / 20__
(Type name) (Signature)

(Email address) (Phone number)

Chairperson (Dept./Div.) _____ / ____ / 20__
(Type name) (Signature)

Chairperson (Curr. Comm.) _____ / ____ / 20__
(Type name) (Signature)

College/School Dean _____ / ____ / 20__
(Type name) (Signature)

Submit one original form. Attach one copy of the course justification and course syllabus: course description, objectives, learning outcomes, major topics and textbooks.

COP-4655 Mobile Application Development

Course Change Justification

This course was initially designed for IT majors with prerequisite as “CEN-3721 and COP-4814”. However, several CS majors are interested in taking this course as an elective since this course provides expertise in mobile computing that is of high demand for job placement.

To facilitate CS majors enrolling in this course, SCIS proposes to change the prerequisite by adding appropriate CS courses to the prerequisite list as “(CEN-3721 and COP-4814) or (CAP-4104 and CEN-4010)”.

School of Computing and Information Sciences

Course Title: Mobile Application Development

Date: 10/4/19

Course Number: COP-4655

Number of Credits: 3

Subject Area: Mobile Computing	Subject Area Coordinator: Kip Irvine email: irvinek@cs.fiu.edu
Catalog Description: Design and development of mobile applications. Introduction to the mobile application frameworks, including user interface, sensors, event handling, data management and network interface. This course requires an additional fee.	
Textbook: iOS Programming: The Big Nerd Ranch Guide (6th Edition) by Christian Keur, Aaron Hillegass ISBN-10: 0134682335	
References: Apple iOS Reference Library Apple Developer Website http://developer.apple.com	
Prerequisites Courses: (CEN-3721 and COP-4814) or (CAP-4104 and CEN-4010)	
Corequisites Courses: None	

Type: Elective

Prerequisites Topics:

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

Course Outcomes:

1. Master the mobile applications framework
2. Master the development of mobile user interfaces.
3. Master controller management.
4. Be familiar with data management techniques
5. Be familiar with network communications and sensors

School of Computing and Information Sciences
COP-4655
Mobile Application Development

Relationship between Course Outcomes and Program Outcomes

BS in IT: Program Outcomes	Course Outcomes
a) Demonstrate practical hands-on expertise in selection, installation, customizing and maintenance of the state-of-the-art computing infrastructure.	
b) Demonstrate practical proficiency in selection, installation, customizing and maintenance of the state-of-the-art software systems.	1,2
c) Demonstrate general understanding of at least one field where Information Technology plays a central role.	1, 2, 3, 4, 5
d) Demonstrate understanding of the social and ethical concerns of the practice of Information Technology.	
e) Demonstrate the ability to work cooperatively in teams.	
f) Demonstrate effective communication skills.	
g) Demonstrate familiarity with fundamental ideas and issues in the arts, humanities and social sciences.	

Assessment Plan for the Course & how Data in the Course are used to assess Program Outcomes

Student and Instructor Course Outcome Surveys are administered at the conclusion of each offering, and are evaluated as described in the School's Assessment Plan:
<http://www.cis.fiu.edu/programs/undergrad/it/assessment/>

School of Computing and Information Sciences
COP-4655
Mobile Application Development
Outline

Topic	Number of Lecture Hours	Outcome
1. Mobile application framework a. Object oriented language concepts b. Model View Controller c. Core OS functions and APIs d. Specialized Devices and Sensor e. Application packaging and execution	3	1
2. Mobile Software Development a. Interactive Development Environment Overview b. Desktop Simulator introduction c. Debugging process d. Application Deployment to device	3	1
3. Views and Drawing a. View controller b. Drawing objects c. Controlling object behavior	6	1,2,3
4. Event Management a. Event controller b. Touch and Multi-touch handling c. Optimization	6	1,2,3
5. Navigation, Scroll and Tabs a. U/I interface management techniques b. API extensions	3	1,2,3
6. Data management a. Database storage techniques b. Simple file management	3	4
7. Images, Audio and Video a. Audio management b. Image and Camera control c. Video record and playback	3	3,4,5
8. Web and Social Networking a. Networking API b. Web browsing API c. Social Networking API	3	3,5
9. Controlling Sensors a. Managing the Accelerometer b. Managing the Gyroscopes	3	5
10. Gaming Aspects a. 2D/3D Animation b. User interface controls c. Sensor integration	3	2

School of Computing and Information Sciences
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Mobile Application Development

Course Outcomes Emphasized in Laboratory Projects / Assignments

	Outcome	Number of Weeks
1	User Interface Development and Design Outcomes: 1, 2	2
2	Complex Event Handling w/ Touch Outcomes: 1, 2	2
3	Audio/Visual Storage Management Outcomes: 2, 3, 4	2
4	Social networking using Web APIs Outcomes: 3, 5	2
5	Social Game Development Outcomes: 3, 4, 5	2

Oral and Written Communication: No significant coverage

Number of written reports:

Approximate number of pages for each report:

Number of required oral presentations:

Approximate time for each presentation:

Social and Ethical Implications of Computing Topics
No significant coverage

School of Computing and Information Sciences
COP-4655
Mobile Application Development

Estimate Curriculum Category Content (credit hours)

Fundamental IT Area	Core	Advanced
Human computer interaction	0.5	
Information management	0.5	
Web systems and technologies	0.5	
System administration and maintenance		
Programming	0.5	
Networking	0.5	
Information assurance and security	0.5	
System integration and architecture		

Theoretical Contents
No Significant Coverage

Problem Analysis Experiences
No Significant Coverage

Solution Design Experiences

1.

Implementation of mobile applications

2.

Real-time Device Control

3.

User Interface Design
