

OAKTON COMMUNITY COLLEGE
Spring 2021 COURSE SYLLABUS

CIS 257 Apps Prog. For Apple-

Credit hours: 4, Lecture: 3 Lab: 2

PREREQUISITE

Recommended: CSC155 (C++) or CSC156 (Java) or ability to write programs using an object-oriented language (e.g. Java, C#, Visual Basic)

II. INSTRUCTOR INFORMATION

Instructor: James Papademas

Office hours (virtual): Tuesday eve. from 9:00-10:00 pm

Link: https://meet.jit.si/OCC_1

III. COURSE (CATALOG) DESCRIPTION

Course covers the fundamentals needed to develop iOS applications for the iPad and iPhone mobile platforms using the Swift programming language, XCode, an Interface Builder, and the Cocoa Touch Framework will be used.

IV. LEARNING OBJECTIVES

Upon completion of this course, the student will be able to:

1. Demonstrate proficiency in coding, compiling, executing, and debugging applications using the Swift programming language
2. Understand the Model, View, Controller (MVC) to build apps
3. Use Cocoa Touch to develop user interfaces
4. Use controls (ex. buttons, toolbars, and sliders)
5. Write code to recognize gestures (swiping, rotation) and detect touches (pinch, drag)
6. Explain memory management
7. Store and retrieve data
8. Incorporate web content within an app
9. Use tables to display text and images
10. Perform simple animations and transformations on a view
11. Learn the basics of Swift Programming
12. Gain knowledge on how to build apps ready for the AppStore

V. ACADEMIC INTEGRITY

Students and employees at Oakton Community College are required to demonstrate academic integrity and follow Oakton's Code of Academic Conduct. This code prohibits:

- ☐ cheating

- ☐ plagiarism (turning in work not written by you, or lacking proper citation)
- ☐ falsification and fabrication (lying or distorting the truth)
- ☐ helping others to cheat
- ☐ unauthorized changes on official documents
- ☐ pretending to be someone else or having someone else pretend to be you
- ☐ making or accepting bribes, special favors, or threats
- ☐ any other behavior that violates academic integrity

There are serious consequences to violations of the academic integrity policy. Oakton's policies and procedures provide students a fair hearing if a complaint is made against you. If you are found to have violated the policy, the minimum penalty is failure on the assignment and, a disciplinary record will be established and kept on file in the office of the Vice President for Student Affairs for a period of three years. Details of the Code of Conduct can be found in the Student Handbook.

VI. OUTLINE OF GENERAL TOPICS

- A. The iOS environment
- B. Components of the iPhone SDK
 - XCode IDE(Integrated Development Environment)
 - Cocoa Touch (UI Views)
 - Memory management
 - Model, view, controllers (MVC framework) to build apps
- C. Swift Language
 - Classes, objects, and methods
 - Data types
 - Numbers, strings, and collections
 - Variables
 - Looping
 - Conditional statements
 - Functions
 - Coding, compiling, executing, and debugging Swift programs
 - Intro to the Swift Playground to test out syntax and algorithm development
- D. Building Applications that involve
 - Working with various User Interface (UI) elements
 - Working with Files
 - Working with Single vs. Multiple Views
 - Control usage
 - View Controllers, Navigation Controllers
 - Table views
 - Navigation techniques
 - Gestures
 - Screen orientations
 - Animations and transformations
 - Web content within an app
 - Data Storage / Retrieval

VII. METHODS OF INSTRUCTION

- A. Labs
- B. Video demonstrations
- C. Thematic projects
- D. App documentation and marketing techniques

VIII. COURSE PRACTICES REQUIRED

The student will be expected to complete appropriate lab assignments and exam(s) to meet the course objectives as determined by the instructor. Labs are graded on coding logic, error trapping, documentation and snapshots of runtime demonstration of your lab objectives being met. Course may be taught as face-to-face, hybrid or as an online course.

XI. METHODS OF EVALUATING STUDENT PROGRESS

Scoring of assignments are as follows:

Lab weight – 50 points/lab

Quiz weight – 50 points/quiz

Final exam weight – 200 points

Grade breakdown is as follows:

A 100-90%

B 80-89 %

C 70-79%

D 60-69 %

F 59% and below

X. INSTRUCTIONAL MATERIALS

Optional text: IOS 10 App Development Essentials: Learn to Develop IOS 10 Apps with Xcode 8, Neil Smyth; Published by CreateSpace; ISBN13: 9781539675037

XI. DISABILITIES

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services. To request accommodations or services, contact the **ASSIST** office in Instructional Support Services. All students are expected to fulfill essential course requirements. The College will not waive any essential skill or requirement of a course or degree program.

XII. Observance of religious holidays

Oakton recognizes the broad diversity of religious beliefs of its student population. It is the College's practice that examinations and major assignments should not be scheduled or due on major religious holidays. Students should inform their instructor of an intended absence for a major religious observance and will not be penalized.

XIII. Responsible use of computers and technology

All users of OCC's computer network are expected to act in a responsible and efficient manner consistent with the instructional, academic, and administrative goals of the college. Check Oakton's website at <http://www.oakton.edu/resource/it/forstu.htm> or in the computer labs for policies and rules for responsible computer use. Lab assistants are available to assist you in the lab regarding general usage of software and hardware.

UNDER NO CIRCUMSTANCES IS ANY OF THE SOFTWARE USED AT OAKTON TO BE COPIED.

OCC has an extensive library of software that you will use for learning purposes. The software you are using in the computer lab is protected under the copyright laws of the United States and is licensed for your use at Oakton Community College. It is both unethical and illegal to make copies of it.

XIV. Late submissions

All graded activities will be submitted via D2L using the DropBox; all graded activities will have a due date and due time. When submitting assignments via D2L, all submissions are date and stamped. If a review assignment is not submitted before the due date/time, you will be subject to a 5% reduction in points for each day your submission is late. Bulk assignments will not be allowed nor graded.

XV. Computer accessibility

To complete your assignments outside of class, you may use any of the computer labs at Oakton at either the Des Plaines campus or Skokie campus or you may use a computer outside of Oakton if you have the appropriate software (MS Office 2013: Word 2013, Excel 2013, Access 2013, PowerPoint 2013 and Visio 2013; Adobe Photoshop CS6; Windows 7).

Oakton Community College has partnered with the **MSDNAA** (Microsoft Developer Network) Academic Alliance to provide credit and non-credit students who are registered for CTIS (CIS and CAB) courses some of Microsoft's software through the DreamSpark Premium program. The software may not be reproduced, redistributed, sold, rented, leased, or transferred to any third party including contractors, other students, other department's personnel, other companies, or consultants performing services. Any reproduction or redistribution of the software is prohibited by law, and may result in severe civil and criminal penalties.

Currently this software includes MS Visual Studio.NET 2013, Microsoft Office Access 2013, Windows 7 Professional, Windows 8.1 Professional, Project Professional 2013, and Microsoft Visio Professional 2013. DreamSpark Premium software is only available for Windows; to run Windows software on Mac OS X you will need to dual-boot or virtualize Windows. This service does not provide installation support, nor does Oakton. The software is downloadable and is free; however, if you want a CD, a minimal fee is charged. Other software is not available, but as a student you qualify for academic pricing on many software packages. Check with the Oakton bookstore or search for "academic priced software" on the web.

To start the process of obtaining the free software, email your instructor, Michele Reznick, at mreznick@oakton.edu. Use your external email (not D2L) when making this request.

Please note that other than Access 2013 and Visio 2013, Microsoft Office is NOT available through

DreamSpark Premium. However, through a separate initiative called "Office in Education", Microsoft Office (Word, Excel, PowerPoint, OneNote, Outlook, Publisher, and Access) is available to Oakton students for both Windows and Mac OS X. Sign up at [http://products.office.com/en-us/student/office-in-education'](http://products.office.com/en-us/student/office-in-education)

XVI. OTHER COURSE INFORMATION:

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services. To request accommodations or services, contact the Access and Disability Resource Center at the Des Plaines or Skokie campus. All students are expected to fulfill essential course requirements. The College will not waive any essential skill or requirement of a course or degree program.

Oakton Community College is committed to maintaining a campus environment emphasizing the dignity and worth of all members of the community, and complies with all federal and state Title IX requirements.

Resources and support for

- pregnancy-related and parenting accommodations; and
- victims of sexual misconduct can be found at www.oakton.edu/title9.

Resources and support for LGBTQ+ students can be found at www.oakton.edu/lgbtq.