

CSC 391/491 Mobile Applications Programming II (iOS)

Adjunct Professor Rohan Panchal
Spring 2024

Class Logistics

Class meets: In-Person / D2L / COL.

Mondays 5:45 - 9:00 CDT

Professor: Rohan Panchal

Email: rpancha2@depaul.edu

Include CSC-391 or CSC-491: prefix in subject line

Course Management: d2l.depaul.edu

Prerequisites:

CSC 471 or CSC 371 Mobile Application Development for iOS I

Class Information

This course introduces dives into intermediate to advanced concepts in iOS development and the Swift language in general. We build on top of the swift language concepts and user interface building tools, in order for us to dive into the more complex theory and tools of iOS development. The course focuses on these topics through regular homework assignments and a research paper + project for the course.

Textbooks

No required textbook

Tentative Topics

- Advanced features of Swift programming language, e.g.
 - Error handling
 - Protocols based programming
 - Extensions
 - Closures and functional programming
 - System libraries
- SwiftUI
- Memory management in iOS and the Automated Reference Counting (ARC)
- Multi-threading and Grand Central Dispatch (GCD)
- Background processing and performance optimization
- Motion sensors, e.g., accelerometers, gyroscopes, magnetometers
- Location and maps
- Audio, video, and speech recognition
- Design patterns and architecture

Grading

- 60% - Bi-Weekly (individual) programming assignments
 - Assignments will be posted before Monday lecture time and due the following Monday at 5PM.
 - Start early and finish early!
 - All submissions are through D2L
 - There will be 3-4 bi-weekly assignments
- 10% Attendance
- 30% - Final Project
 - Final project deliverables
 - Documentation
 - Research
 - Project deliverables
 - Documentation
 - Demo video
- Late Policy
 - Late programming assignments will be accepted with penalties
 - -10% for the first week
 - -10% for every day after the first week.
 - **Late assignments will not be accepted 2 weeks after the due date.**
 - Each student has one free pass for a mitigation of 1 10% deduction, you may only use it once. Use it wisely. To use the free extension pass, indicate that in the comment while you submit your assignment in D2L.
 - No later submission will be accepted for the final project. (The free extension pass does not apply to the final project.)

Term-length research paper & project

The final exam will be the final project for the course.

- Individual projects
- Required to pass the class:
 - Absence of a final term paper and project will automatically fail the course.

The final research paper and project deliverables should be uploaded to D2L submissions

Grade Scale

A	> 93%
A–	90–92%
B+	87–89%
B	83–86%
B–	80–82%
C+	77–79%
C	73–76%
C–	70–72%
D+	67–69%
D	63–66%
D–	60–62%
F	0–59%

Class Structure

This class will be in-person and online async.

All assignments, schedules, lecture materials will be available online at D2L.

Academic Integrity:

Cheating, plagiarism, and unethical conduct are not allowed, and will be sanctioned, including referral to the dean's office, and failure in the class. Please refer to the academic handbook by which rules you are expected to abide.

Violations include, but are not limited to: making claims on any checklist for work that has not been done; including ANY un-cited work of others in any documents you turn in; turning in work, including any program, that has been authored by someone other than yourself; and in some cases including *any* work of others, whether cited or not—see the rules for each assignment.

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be addressed during class, posted in D2L, and sent via email.

Online Course Evaluations

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu/>. If you have any questions be sure to consult with your professor.

Academic Policies
All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: cdm.depaul.edu/enrollment.

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: csd@depaul.edu.

Lewis Center 1420, 25 East Jackson Blvd. Phone number: (312)362-8002
Fax: (312)362-6544 TTY: (773)325.7296

Other Course Policies

Attendance:

If you are registered to be in-person, it is mandatory.

Class Discussion:

Student participation in class discussions in the groups is expected.

Attitude: A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitude include but are not limited to: talking to others when the instructor is speaking, mocking another's opinion, cell phones ringing, emailing, texting or using the internet whether on a phone or computer. If any issues arise a student may be asked to leave the classroom.

Cell phones / laptops in class:

If you need to use your cell phone for any reason, or your laptop for any reason other than following the class slides, and taking notes, *leave the room*. You may quietly leave and re-enter as often as necessary unless I note otherwise. Your peers devote many hours out of their busy lives, and hundreds of dollars, to come to class. They deserve a vibrant, focused, environment. If you have a special case, discuss it with the instructor ahead of time. NO TEXTING, EMAIL, FACEBOOK, etc. in the classroom.

Civil Discourse:

DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be Socially Responsible Leaders. It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student. Any instances of disrespect or hostility can jeopardize a student's ability to be successful in the course.