
Introduction to Human-Centered Design in iOS Applications

COM SCI 88S | Spring 2019

Course Information

Facilitator: Kevin Tan (he/him/his)

Faculty Mentor: Paul Eggert (he/him/his)

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Time and Location: Tuesdays, 12:00-12:50 PM. Kaplan Hall A48.

Office Hours: By appointment

Course Description

Have you ever pulled a door that was meant to be pushed, or spent hours trying to figure out how to delete your cover photo on Facebook? The fault isn't yours—rather, it's a consequence of poor design. Good design is arguably as important for a product as the engineering underlying it. Cutting-edge technologies become meaningless if the consumers they are intended for cannot intuitively use them; it's one thing to have a revolutionary creation, but it's another for it to be aesthetically pleasing and easy to use. In a world increasingly reliant on digital devices, what role has design played in setting Apple apart as the most successful tech company in the world?

In this seminar, we will explore the enormous world of design through the lens of Apple's characteristic "human-centered design", and will discuss how it greatly influenced the success of both the iPhone and iOS. Students will learn basic principles of design before examining in depth how iOS applications have evolved over time. Finally, the seminar will culminate in a study of design in popular mobile applications such as Instagram and Youtube, a brief look into Google's "Material Design", and a project in which students design an app of their own.

Course Objectives

By the end of this course, students will be able to:

- Demonstrate an understanding of the principles of good product design
- Analyze mobile app design choices critically and thoughtfully
- Create mobile app User Interface (UI)/User Experience (UX) flows of their own

Grading & Assignments

This course is graded on a Pass/No Pass basis. You must achieve **at least a C-** (or equivalently, a score of **at least 70%**), complete at least half of the discussion posts, and submit both projects in order to receive a Pass.

Grading will consist of four components:

1. **Participation—40%**

Good design seldom comes from the mind of a single individual—rather, the best designs often arise from a diversity of knowledge, ideas, and experiences. As such, your individual contributions to the group are invaluable and it is important you come to class prepared to actively discuss the readings and activities assigned for that week.

2. **Discussion Posts—20%**

Every week until the assignment of the final project (see course schedule for exact weeks), I will post an image of a product or mobile app on CCLE and you will have to write a short, one paragraph forum response analyzing its design. There are a total of six posts and they will always be due the night before next week's meeting, at 11:59 PM. As there are no right or wrong answers, these posts are meant to be entirely subjective. The goal is to get you thinking about why designers chose to build a product the way that they did.

3. **Wireframe Project—10%**

About midway through the class, you will have to sketch a wireframe (a basic, rough design) of a single screen for a hypothetical app. You will submit your sketch along with a short paragraph explaining your design choices. This project intends to give you a first experience with designing something of your own, as well as to get feedback from me. It will be due the night before the following week's meeting, at 11:59 PM.

4. **Final Project—30%**

The final project consists of two wireframe sketches and one hi-fidelity mockup (a total of three distinct screens) for an app idea of your own, or one that I provide. You will submit these along with a half to one page response explaining your design choices. This project is meant for you to apply everything you've learned in class and give you a foundation to enter the world of design. It will be due the Saturday after finals week at 11:59 PM.

Course Schedule

All readings will be posted on CCLE. Readings for one week should take about an hour.

Week 1: Introduction to Principles of Design

Week 2: Principles of Design Continued

Pre-Class Reading:

- Donald A. Norman - *The Design of Everyday Things* (pg. 1-13, 23-33)

Due: Discussion Post #1

Week 3: The Release of the iPhone - What is "Human-Centered Design"?

Pre-Class Reading:

- Ken Segall - *Insanely Simple: The Obsession That Drives Apple's Success* (pg. 8-9, 99-101)
- Scott Robertson - *Human-Centered Design and the Missile False Alarm in Hawaii* (~4 pages)
- Apple - *Human Interface Guidelines for iOS* (front page only)

Due: Discussion Post #2

Week 4: Early iOS - Skeuomorphism

Pre-Class Reading:

- Interaction Design Foundation - *What is Skeuomorphism?* (~1 page)
- Alan Sien Wei Hsieh - *In Defense of Skeuomorphism* (~2 pages)

Due: Discussion Post #3

Week 5: The Rise of Flat Design and Minimalism

Pre-Class Reading:

- Kar Loong Wong - *Apple Design Goes Flat with iOS 7* (~2 pages)

Due: Discussion Post #4

Week 6: A Crash Course on UI/UX Design

Pre-Class Reading:

- ExperienceUX - *What is Wireframing?* (~1 page)
- Jeff Wang - *Crash Course: UI Design* (~5 pages)

Due: Discussion Post #5

Week 7: From User to Product: The Human-Centered Design Process

Pre-Class Reading:

- Jesse Weaver - *Design Won't Save the World* (~3 pages)

Due: Wireframe Project

Week 8: Final Project Introduction and Figma Tutorial

Due: Discussion Post #6

Week 9: Design in Contemporary iOS Applications

Pre-Class Reading:

- Maya Kosoff - *"It Was Cataclysmic": Can Snapchat Survive its Redesign?* (~3 pages)

Week 10: The Competition: Google's "Material Design"

Pre-Class Reading:

- Karol K - *Flat Design vs. Material Design: What Makes Them Different?* (~4 pages)

Finals Week (Saturday): Final Project Due

Course Policies

Late Assignments

You will lose 10% on an assignment for each day past its due date. I understand, however, that as college students some weeks can be much more overwhelming than others. Please do not hesitate to contact me ahead of time if you don't think you can meet a deadline, and we can figure out a solution.

Academic Dishonesty

I expect all work submitted to be your own. Cheating, plagiarism, collaborative work without the permission of the professor, or other kinds of academic dishonesty are considered unacceptable behavior and will result in formal disciplinary proceedings usually resulting in suspension or dismissal. Again, I understand that college can be difficult and I want you to get as much out of this class as possible. If you are unable to meet a deadline, please reach out to me for help. For more information visit www.deanofstudents.ucla.edu/Student-Conduct-Code.



Inclusive Learning Environment

Respectful communication is a requirement for effective discussion. You are expected to contribute to a welcoming and inclusive environment to support the learning of all of your classmates. For more information regarding the university's policy on respect, visit www.ucla.edu/pdf/principles-of-community.pdf.

Student Learning Resources

Academic Accommodations Based on a Disability

If you need to request an academic accommodation for a disability, please contact the Center for Accessible Education. If possible, you should contact them within the first two weeks of the quarter as reasonable notice is required to coordinate accommodations. For more information, visit www.cae.ucla.edu.

Individualized Support

My highest priority in this class is your learning. If there is ever anything that arises inside or outside of class that inhibits your ability to participate, please let me know and we can create a plan. The sooner we meet, the more options will be available to ensure your academic success.

UCLA Student Campus Resources

Academic Achievement Program

AAP advocates and facilitates the access, academic success, and graduation of students who have been historically underrepresented in higher education; informs and prepares students for graduate and professional schools; and develops the academic, scientific, political, economic, and community leadership necessary to transform society. Learn more at www.aap.ucla.edu.

Bruin Resource Center

BRC offers services for transfer students, undocumented students, veterans, and students with dependents. For more information visit www.brc.ucla.edu.

Counseling and Psychological Services

CAPS is a multidisciplinary student mental health center for UCLA. They are here to support your mental health needs as you pursue your academic goals. For more information visit www.counseling.ucla.edu, or call (310)-825-0768.

Dashew Center for International Students and Scholars

Dashew is where domestic and international students and scholars meet. For more information visit www.internationalcenter.ucla.edu.

Dean of Students Office

The mission of the Dean of Students Office is to serve as a portal to understanding the UCLA experience, to facilitate the personal and intellectual growth and development of our students. For more information visit www.deanofstudents.ucla.edu.

HSSEAS Office of Academic and Student Affairs

SEASOASA offers counseling services for engineering students. For more information visit <https://www.seasoasa.ucla.edu>.

LGBT Resource Center

The LGBT Resource Center provides a comprehensive range of education and advocacy services supporting intersectional identity development as well as fostering unity, wellness, and an open, safe, and inclusive environment for UCLA's LGBTQ community. For more information visit www.lgbt.ucla.edu.

Student Legal Services

Student Legal Services provides confidential legal counseling and assistance regarding a wide range of legal issues to all currently registered and enrolled UCLA students. For more information visit www.studentlegal.ucla.edu.

Undergraduate Writing Center

The UWC is a free service for all UCLA students. For more information, see www.wp.ucla.edu/uwc and get help with your writing.