

Catalogue Description	This class covers the mobile industry, devices, operating systems, types of apps, how to monetize apps, and how much it costs to build an app. Students will learn how to design an app, build a prototype, conduct usability tests, and create a business plan.	
Objective	Upon conclusion of this course, students will have taken an app idea from start to prototype and business plan. Students will use various tools to create a color palette and app icon, wireframes, and an interactive prototype. The goal is an interactive prototype of an app, not a working native app.	
Prerequisites	None.	
Instructor	Trina Gregory (trinagre@usc.edu)	
Office Hours	http://bcf.usc.edu/~trinagre	
Lab Assistants	Listed on Blackboard under Contacts.	
Course Hours	Listed on the Schedule of Classes.	
Course Structure	The class meets for one hour and 20 minutes twice a week for a total of 2 hours and 40 minutes. These sessions include lectures and hands-on learning labs. One exam is given during the semester and held during the class meeting. Weekly assignments and a final project are completed outside of class time. The final project is a group-based project with groups of 1 to 4 students. The final project includes a business plan presentation and a demonstration of a mobile app prototype. Access to a computer is recommended, although ITP holds open lab hours with computers. All course material is available on Blackboard at http://blackboard.usc.edu .	
Required Textbook	None.	
Grading	The following percentage breakdown is used to determine the final grade.	
	Assignments (weighted proportionally)	50%
	Midterm Exam	25%
	Final Project	25%
	TOTAL POSSIBLE	100%
Grading Scale	The following scale is used to determine the letter grade:	
	93% and above	A
	90 - 92%	A-
	87 - 89%	B+
	83 - 86%	B
	80 - 82%	B-
	77 - 79%	C+
	73 - 76%	C
	70 - 72%	C-
	69 - 65	D
	64 and below	F
	If you are taking the class with a grade of P/NP, you must earn a grade of 70% or higher in order to receive a P. Final grade percentages are calculated to two decimal places and rounded to hundredths. For example, 89.99 is a B+ while 89.995 is rounded to 90 and thus an A-.	

Homework The assignments will be posted on Blackboard under the “Assignments” section. Each assignment will include instructions, a due date, and a link for electronic submission. All assignments will be digitally submitted through Blackboard except where specifically specified. Do not email them to the lecturer or lab assistant.

It is your responsibility to submit assignments on or before the due date. Assignments turned in up to three days late will have 50% of the total points deducted from the graded score. After three days, submissions will not be accepted and you will receive a 0. It is the responsibility of the student to contact the grader when posting late projects. Each student will be allowed ONE three-day late assignment for “free”. You must indicate that you are using your free late in the comments when you submit the assignment, and this may not be used on the final project.

You are required to keep a copy of all of your assignments. You may save your assignments using a USB flash drive or a website such as <http://www.dropbox.com>. You will not be able to save your work on the ITP lab computers. ITP is not responsible for any work lost.

Policies No make-up exams (except for documented medical or family emergencies) will be offered. If you do not take an exam, then you will receive a 0.

A roster will be passed around the room during each lecture session. Please sign by your name for the appropriate week. Do not sign in for another student; doing so is an academic integrity violation.

If you register for the class after assignments and lab are due, then you must turn in any missed work within three days from the day you registered. If you registered on a Friday, then all missed work needs to be submitted by the end of day on Monday.

ITP offers open lab use for all students enrolled in ITP classes. These open labs are held beginning the second week of classes through the last week of classes. Hours are listed at <http://itp.usc.edu/labs/>.

Incomplete and Missing Grades University Grading Handbook, located at <http://www.usc.edu/dept/ARR/grades/gradinghandbook/index.html>, contains details on incomplete and missing grades, as well as other grading concerns.

A grade of Missing Grade (MG) should only be assigned in unique or unusual situations such as for those cases in which a student does not complete work for the course before the semester ends. All missing grades must be resolved by the instructor through the Correction of Grade Process. One calendar year is allowed to resolve a MG. If an MG is not resolved [within] one year, the grade is changed to UW (Unofficial Withdrawal) and will be calculated into the grade point average as zero grade points.

A grade of Incomplete (IN) is assigned when work is not completed because of documented illness or other ‘emergency’ occurring **after the twelfth week of the semester** (or 12th week equivalency for any course scheduled for less than 15 weeks).

Viterbi Honor Code Engineering enables and empowers our ambitions and is integral to our identities. In the Viterbi community, accountability is reflected in all our endeavors.
Engineering+ Integrity.
Engineering+ Responsibility.
Engineering+ Community.
Think good. Do better. Be great.
These are the pillars we stand upon as we address the challenges of society and enrich lives.

Academic Integrity USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles.

SCampus is USC's Student Guide to Policies and Conduct Code and can be found at <http://scampus.usc.edu>. Section 11 contains the Behavior Violating University Standards and Appropriate Sanctions and can be found at <http://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards (SJACS) for further review, should there be any suspicion of academic dishonesty. The Review process can be found at <http://www.usc.edu/student-affairs/SJACS/>.

An academic integrity tutorial can be found at http://www.usc.edu/libraries/about/reference/tutorials/academic_integrity/index.php

Examples of behavior violating University standards:

- The submission of material authored by another person but represented as the student's own work, whether that material is paraphrased or copied in verbatim or near-verbatim form.
- Obtaining for oneself or providing for another person a solution to homework, a project or other assignments, or a copy of an exam or exam key without the knowledge and expressed consent of the instructor.
- Unauthorized collaboration on a project, homework or other assignment.
- Fabrication: Submitting material for lab assignments, class projects or other assignments which is wholly or partially falsified, invented or otherwise does not represent work accomplished or undertaken by the student.

If the instructor, a grader, or a lab assistant suspects you of academic dishonesty, it has to be reported to SJACS. Do not share lab assignments with another student. Do not submit another student's work as your own. Do not look at other students' papers during exams. Do not leave the room during an exam without permission.

Do not cheat! As Trojans, we are faithful, scholarly, skillful, courageous, and ambitious.

Support Systems	<p>Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the <i>Office of Equity and Diversity</i> at http://equity.usc.edu/ or to the <i>Department of Public Safety</i> at http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. <i>The Center for Women and Men</i>, information at http://www.usc.edu/student-affairs/cwm/, provides 24/7 confidential support. The sexual assault resource center webpage at sarc.usc.edu describes reporting options and other resources.</p>
Disability Services	<p><i>The Office of Disability Services and Programs</i>, information at http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html, provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to your course instructor as early in the semester as possible. If you need accommodations for an exam, the form needs to be given to the instructor at least two weeks before the exam, but preferably at the beginning the semester.</p>
Emergency Preparedness	<p>If an officially declared emergency makes travel to campus infeasible, <i>USC Emergency Information</i>, information at http://emergency.usc.edu/, will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology. Additional information about <i>Campus Safety and Emergency Preparedness</i> can be found at http://preparedness.usc.edu.</p>

Course Outline*		
Week	Topics	Assignments
1	Course Overview; Mobile Industry	
	Technology Background; Internet	
2	App Types – web, native, hybrid	HW1: Web app vs Native app
	Cross-compiled Tools	
3	WWW and Networks	HW2: Websites
	Responsive Web Design	
4	Mobile Design	Create Groups
	Interface Design	
5	Colors, Images, and Icons	HW3: App Proposal
	Photoshop	
6	Application Styles	HW4: Color Palette & App Icon
	Wireframing Tools	
7	User Interfaces – iOS	HW5: Wireframes
	User Interfaces – Android	
8	Monetization	HW5: Wireframes
	Balsamiq	
9	Review	Review for Exam
	Midterm Exam	
10	Usability Testing	6: Wireframes Review
	Wireframes Usability Testing	
11	Buy vs Build	7: Apps Analysis
	The Cost of Development	
12	APIs and Analytics	Final Project: Prototype
	Prototyping	
13	Business Plan	Final Project: Prototype
	Marketing	
14	Databases; Cloud	Final Project: Business Plan
	Holiday – No Class	
15	Deployment	Final Project
	Presentations	
Finals	Final Project Presentations during the schedule exam time.	

* This course outline is for planning purposes and is subject to change.