

Catalogue Description	Capstone course for Mobile App Development minor. Work in project teams to develop new mobile app from start to finish. Meet with client, create app design, develop, test, and demonstrate app to client.														
Objective	The goals are to expose students to the process of developing a new mobile app from start to finish and to provide an experience very similar to what a developer would have at any company where they work to produce an app that not only works but is also something that meets the needs of their clients. We will work with organizations inside USC and outside USC, who will act as their clients. This course gives the students an opportunity to bring together skills and knowledge they have learned in several other courses in order to build a moderately complex mobile app. This course will strongly emphasize the importance of teamwork and communications between the students and their client as a necessary aspect of the project.														
Prerequisites	Mobile app development experience (ITP 140 can be waived.)														
Instructor	Trina Gregory (trinagre@usc.edu)														
Office Hours	Listed on Blackboard under Contacts.														
Lab Assistants	Listed on Blackboard under Contacts.														
Course Hours	Wednesday, 5:00 pm – 8:50 pm.														
Course Structure	Homework assignments and a final project are completed outside of class time. Students will be graded on the Technical Sustainability and Scalability of their project. This means that their code base needs to be quality code with helpful comments throughout and any necessary documentation. Future developers should be able to take over their project and understand it. Access to a computer is recommended, although ITP has some loaner laptops and holds open lab hours with computers. All course material is available on Blackboard at http://blackboard.usc.edu .														
Textbooks	<p><u>Running Lean: Iterate from Plan A to a Plan That Works, 2nd Edition.</u> By: Ash Maurya. Publisher: O'Reilly Media, Inc. Pub. Date: February 28, 2012. Print ISBN-13: 978-1-4493-0517-8. Available online at Safari Books Online.</p> <p><u>Essential Scrum: A Practical Guide to the Most Popular Agile Process.</u> By: Kenneth S. Rubin. Publisher: Addison-Wesley Professional. Pub. Date: July 26, 2012. Print ISBN-13: 978-0-13-704329-3. Web ISBN-13: 978-0-321-70040-7. Available online at Safari Books Online.</p>														
Grading	<p>The following percentage breakdown is used to determine the final grade.</p> <table border="0"> <tr> <td>Technical Sustainability and Scalability</td> <td>5%</td> </tr> <tr> <td>Assignments (weighted proportionally)</td> <td>20%</td> </tr> <tr> <td>Internal Presentations</td> <td>20%</td> </tr> <tr> <td>Final Presentation & Demo</td> <td>25%</td> </tr> <tr> <td>Class Participation</td> <td>10%</td> </tr> <tr> <td>Peer & Faculty Evaluations</td> <td>20%</td> </tr> <tr> <td>TOTAL POSSIBLE</td> <td>100%</td> </tr> </table>	Technical Sustainability and Scalability	5%	Assignments (weighted proportionally)	20%	Internal Presentations	20%	Final Presentation & Demo	25%	Class Participation	10%	Peer & Faculty Evaluations	20%	TOTAL POSSIBLE	100%
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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. Assignments must be submitted using this link. 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>. If available, you will be given one USB flash drive from ITP. 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.

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.

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/>. The open labs will not have a lab assistant for this specific class. These lab times are there in case you do not have a computer and need time to complete an assignment.

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).

Confidentiality Policy Throughout The Entrepreneur Program's classes and events, students will be exposed to proprietary information from other students, guest lecturers and faculty. It is the policy of The Entrepreneur Program that all such information is to be treated as confidential.

By enrolling in and taking part in The Entrepreneur Program's classes and activities, students agree not to disclose this information to any third parties without specific written permission from students, guest lecturers or faculty, as applicable. Students further agree not to utilize any such proprietary information for their own personal commercial advantage or for the commercial advantage of any third party.

In addition, students agree that any legal or consulting advice provided without direct fee and in an academic setting will not be relied upon without the enlisted opinion of an outside attorney or consultant, without affiliation to The Program.

Any breach of this policy may subject a student to academic integrity proceedings as described in the University of Southern California University Governance Policies and Procedures as outlined in SCampus, and to the remedies that may be available at law.

The Entrepreneur Program, the Marshall School of Business and the University of Southern California disclaim any responsibility for the protection of intellectual property of students, guest lecturers or faculty who are involved in The Entrepreneur Program classes or events.

Receipt of this policy and registration in our classes is evidence that you understand this policy and will abide by it.

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

Assignments and projects in computer programming course are different from those in some other types of courses. Students **may NOT collaborate**, work together, share code, or in any way exchange solutions for assignments and projects. All assignments are analyzed by software that looks for similarity. Any sharing of ideas or code will be considered a violation of academic integrity (cheating); an SJACS report will be filed with the recommended penalty of an F in the course. Do not share your code with anyone else in this or a future section of the course, as allowing someone else to copy your code carries the same penalty as you copying the code yourself.

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	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/departement/departement-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.
Disability Services	<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.
Emergency Preparedness	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 .

Course Outline*		
Week	Topics	Activities/Assignments
1	M: Course overview J: Entrepreneurial Thinking	Student Background Questionnaire Project Proposal (optional)
2	T: Agile Development J: Collaboration Tools J: Project Presentations	Tools Setup Project Selection (by Sunday)
3	J: Business Model Canvas J: Sprint Planning	Lean Canvas Jira
4	J: UI/UX Design M: Career Fair Prep J: Sprint Report	Resume App Proposal Document Jira
5	T: Prototyping J: Sprint Report	Balsamiq Jira
6	J: Digital Marketing Method M: Mobile Analytics J: Sprint Report	Prototype Jira
7	J: Technology Strategy & Operations J: Sprint Report	Usability Tests of Prototype Jira
8	M: Industry Best Practices for Mobile App Project Development J: Sprint Report	App Development Jira
9	M: Advanced iOS J: Sprint Report	App Development Jira
10	M: Android J: Sprint Report	App Development Jira
11	M: Teamwork Anti-patterns J: Sprint Report	App Development Jira
12	J: Protecting Your Idea J: Sprint Report	App Development Jira
13	J: Fundraising / Accelerators J: Start-up Panel J: Sprint Report	App Development Jira
14	J: Presentation Practice J: Sprint Report	App Development Jira
15	J: Team Presentations & Project Demos	Final App Demo

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

J refers to a Joint session with all of the other classes.

M refers to a session with only mobile students.

T refers to a session with mobile and web students.