ITP 466: Building a High Tech Startup
Units: 4
Fall 2019

Lecture: TBD

Instructor: Mike Lee  
Office: Olin Hall of Engineering  
Office Hours: 4 hours per week. Schedule varies by semester  
Contact Info: mikelee@usc.edu

Teaching Assistant: TBD  
Office: TBD  
Office Hours: TBD  
Contact Info: TBD

IT Help:  
USC IT (ITS): https://itservices.usc.edu/contact/  
Viterbi IT: https://viterbi.usc.edu/resources/vit/contact-us.htm
Course Description
This course provides a comprehensive overview of the methodologies and processes involved in building a
tech startup. Students will work in teams, learning how to turn great ideas into great companies.

Learning Objectives
After completing this course, students will be able to:

- Build winning startup teams
- Develop a business model
- Fundraise
- Acquire and sustain customers
- Generate revenue
- Employ sales techniques and meet with investors
- Understand the legal and accounting matters
- Produce product roadmaps and feature sets
- Develop products using Agile methodologies
- Produce UX/UI documentation including wireframes, high fidelity designs, and prototypes
- Gather and analyze metrics
- Employ marketing techniques

Prerequisite(s): None

Course Notes
Lecture slides and any supplemental course content will be posted to Blackboard for use by all students.
Any and all announcements for the course will be posted to Blackboard.

Additionally, Slack will be setup for communication between team members, the instructor and TA.

Reading Material
This class covers a great deal of territory, so no single textbook can cover it all. In addition to reading
material that will be assigned in class, the following reading material is recommended to provide important
background:

- Paul Graham Essays
  http://www.paulgraham.com/articles.html
- Zero to One, Peter Thiel
  http://zerotooneboot.com/
- The Hard Thing About Hard Things, Ben Horowitz
- Walt Disney, Neal Gabler
- The PayPal Wars, Eric M. Jackson
  https://www.amazon.com/PayPal-Wars-Battles-Media-Planet/dp/1936488590
- Traction: A Startup Guide to Getting Customers, Gabriel Weinberg & Justin Mares

Project
For a hands-on experience, there will be a semester-long team project assignment. Each team must have
between 4 and 5 members. Each team will develop an MVP throughout the semester and present a pitch of
the MVP at the end of the semester.
Grading Breakdown

The weight of the graded material during the semester is listed below:

<table>
<thead>
<tr>
<th>Item</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-class participation</td>
<td>10</td>
</tr>
<tr>
<td>Peer Reviews</td>
<td>10</td>
</tr>
<tr>
<td>Project Assignments</td>
<td>40</td>
</tr>
<tr>
<td>Project Pitch</td>
<td>20</td>
</tr>
<tr>
<td>Exam</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
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Grading Scale (Example)

Course final grades will be determined using the following scale:

- A  95-100
- A-  90-94
- 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   59 and below

Policies

Students are expected to attend and participate in lectures and in-class team work. Students are responsible for completing assignments by stated deadlines. Assignments turned in one day (24 hours) late will have 10% of the total points deducted from the graded score. Assignments turned in over one day and up to three days (>24 hours and <= 72 hours) 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.

You will be permitted to bring one 8.5 x 11 cheat sheet to the exam. You will not be permitted to use laptop computers or mobile devices. No make-up exams (except for documented medical or family emergencies) will be offered. If you will not be able to attend an exam due to an athletic game or other valid reason, then you must coordinate with the instructor before the exam is given. You may arrange to take the exam before you leave, with an approved university personnel during the time you are gone, or within the week the exam is given. If you do not take an exam, then you will receive a 0 for the exam.

If you need accommodations authorized by DSP (Disability Services and Programs), notify the instructor at least two weeks before the exam. This will allow time for arrangements to be made.
## Course Schedule: A Weekly Breakdown

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
</tr>
</thead>
</table>
| **Week 1** | **Course Introduction**  
- Course objectives and outcomes  
- Tools and approaches  
- Introduction to startups |
| **Week 2** | **Team**  
- Founders and employees  
- Attracting and hiring the right people  
- Roles and team dynamics  
- Culture |
| **Week 3** | **Ideation**  
- Brainstorm problems to solve  
- Select team problem |
| **Week 4** | **Product Research**  
- Research TAM  
- Research competitive landscape  
- Research feasibility |
| **Week 5** | **Product Management**  
- Minimum viable product  
- Product vision  
- Product roadmap  
- Features and requirements |
| **Week 6** | **UX Design**  
- User research  
- Personas and scenarios  
- Wireframes |
| **Week 7** | **UX Design continued**  
- User research  
- Personas and scenarios  
- Wireframes |
| **Week 8** | **UI Design**  
- High fidelity designs  
- Prototypes  
- Usability testing  
- A/B testing tools |
| Week 9 | **Product Development**  
| - Agile development, SCRUM, Waterfall  
| - Development frameworks  
| - Databases, NoSQL, SQL  
| - SaaS, buy vs. build  
| - Hosting environments  
| - Outsource vs. insource |
| Week 10 | **Customers**  
| - Customer acquisition  
| - Customer relationships  
| - Customer segments |
| Week 11 | **Revenue**  
| - Revenue streams  
| - Pricing  
| - Market type, size and share  
| - Common mistakes  
| - Revenue first companies |
| Week 12 | **Marketing**  
| - Marketing channels  
| - Social media marketing  
| - Inbound marketing  
| - Funnel analysis |
| Week 13 | **Fund Raising**  
| - Investors’ perspective  
| - Meeting with investors, pitching, leveraging relationships  
| - Fund raising process  
| - Valuation  
| - Term sheets |
| Week 14 | **Exam** |
| Week 15 | **MVP and Pitch Run-through** |
| Finals Week | **Team Pitches** |

**Statement on Academic Conduct and Support Systems**

**Academic Conduct**
Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” https://policy.usc.edu/scampus-part-b/. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Support Systems

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. https://engemannshc.usc.edu/counseling/

National Suicide Prevention Lifeline - 1-800-273-8255
Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. http://www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender-based harm. https://engemannshc.usc.edu/rsvp/

Sexual Assault Resource Center
For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: http://sarc.usc.edu/

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086
Works with faculty, staff, visitors, applicants, and students around issues of protected class. https://equity.usc.edu/

Bias Assessment Response and Support
Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. https://studentaffairs.usc.edu/bias-assessment-response-support/

The Office of Disability Services and Programs
Provides certification for students with disabilities and helps arrange relevant accommodations. http://dsp.usc.edu

Student Support and Advocacy – (213) 821-4710
Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. https://studentaffairs.usc.edu/ssa/

Diversity at USC
Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. https://diversity.usc.edu/

USC Emergency Information
Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, http://emergency.usc.edu

USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.
Provides overall safety to USC community. http://dps.usc.edu