



**BAEP 465 – Digital Playbook for Entrepreneurs:
 Creating a Tech Startup**

W – 4:00 PM - 5:50 PM – Syllabus

Section: 14393

Units: 2
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Course Description

Technology is impacting our everyday lives. We live in a digital age where learning, communicating, innovating, and even entertaining are driven by technology. In order to excel and succeed in the world today, it is essential to be literate in technology. This course aims to **provide a core foundation of technology principles and enable students to implement technology in a practical and meaningful way.**

Some of the technology topics and companies we will cover in this course include:

Prototyping Applications	One of the important skills you will learn from this course is how to prototype your ideas into interactive demos. Students will learn applications such as Invision, Sketch, and Marvel. Students have the option of using whatever prototyping application of their choice.
Agile Development	Agile development is a common approach to building software efficiently. Group exercises using Agile development to build prototypes will be introduced in this course.
Digital Marketing	Once the heavy lifting of creating a product is complete, the next challenging step is finding an audience to market to. This class will look at best practices for using digital platforms to market your product.
Analytics	It is important to understand the key metrics from your product: how many daily & monthly visitors, retention rates, churn, revenue trends, lifetime value of a customer, and custom analytics to your product.
Artificial Intelligence & Machine Learning	Artificial Intelligence (AI) and Machine Learning are key areas companies are focusing their R&D efforts. We will explain the concepts behind AI and Machine Learning and how they could apply to your products.

Cloud Computing	Various companies such as Amazon, Dropbox, Google, Box, Evernote, etc. have built cloud-computing products to help companies and entrepreneurs manage their business. This class discusses how these tools can help entrepreneurs manage their business.
Augmented and Virtual Reality	AR and VR are two of the most exciting and promising technologies. This class will provide overviews of AR/VR and present different ways entrepreneurs can utilize these platforms for their own purposes potential new ventures.
Fintech	Financial Services & Technology (Fintech) is disrupting many industries including real estate, insurance, and banking. We will look at how fintech companies are structured, various business models, and exit strategies.

In order to be successful in this class, you must be excited and inspired to learn about new technologies. This is a hands-on course and you will be expected to experiment with new apps, software products, digital news services, etc.

Learning Objectives

In this course, you will develop your conceptual and practical knowledge of creating a high-tech start up and build the components that make up a digital playbook. When this course is over, you will be able to:

1. Understand the key components required to create a digital playbook including development of a minimum viable product (MVP), rapid prototyping, and project management using SCRUM.
2. Evaluate the latest technology trends (i.e. artificial intelligence, machine learning, augmented reality, etc.) and how they impact high-tech startups.
3. Analyze the process for developing a business model for a high-tech startup.
4. Create a digital marketing strategy for attracting users to your product, including growth hacking techniques.
5. Build a profit and loss (P&L) statement for a high-tech startup to support your business model assumptions.
6. Evaluate different analytics products and understand which are the correct metrics for your business.

You will also:

1. Develop your leadership skills, particularly in the areas of team leadership and entrepreneurial leadership.
2. Develop your oral and written communication skills (for example, learning to create an effect pitch presentation, in-depth industry analysis, and deliver a persuasive an polished executive summary).

To achieve these objectives, a combination of methods will be used in the course, including lectures, case studies, individual and team projects, student presentations, and guest speakers.

Although it is a technology class, you are **NOT** expected to be tech savvy with computer programming or other technical skill sets. Success in this course is based upon how you prepare for each lecture, how familiar you become with the topics/principles presented in each class, participation, and quality (and timeliness) of your assignments.

Required Materials

Course Textbook: Growth Hacker Marketing, by Ryan Holiday.

Weekly readings, articles, podcasts, etc. will be posted on Blackboard. Students are expected to come prepared to discuss and apply the weekly materials as assigned in Class Schedule. An overview of the readings are listed below:

- Internet Trends 2017 – Code Conference; Mary Meeker (Kleiner Perkins)
- Global Innovation Investment Report: Predictions for 2017; Crunchbase
- Podcast: Instagram Founders Kevin Systrom and Mike Krieger; How I Built This; NPR
- Marvel App, Creating Your First Prototype (<https://www.youtube.com/watch?v=Vm1J2wUhNOK>); YouTube
- 12 UX Rules Every Designer Should Know; Vladimer Gendelman; Web Designer Depot
- The Definitive Guide to SCRUM: The Rules of the Game; Ken Schwaber and Jeff Sutherland
- AirBNB Pitch Deck and Redesign; Slidebean.com
- Reveries on the Future of VR; Jason Rosenthal; VRScout February 2017
- Virtual Reality and Beyond; Bryan Yeager; eMarketer January 2016
- Presentation Design: Principles and Techniques; Garr Reynolds; Chapter 6; Presentation Zen
- The Business Model Canvas; Alexander Osterwalder; Chapter 1; Business Model Generation
- 12 Things About Product Market Fit; Tren Griffin; <https://a16z.com/2017/02/18/12-things-about-product-market-fit/>
- What is Intellectual Property; WIPO World Intellectual Property Organization; WIPO Publication No. 450(E)
- App Annie User Acquisition The Definitive Playbook; April 2017; AppAnnie.com
- The Untold Story of Magic Leap, the World's Most Secretive Startup; Kevin Kelly; Wired Magazine; May 2016
- AI, Machine Learning, and Deep Learning: A Primer; Frank Chen; <https://medium.com/software-is-eating-the-world/ai-machine-learning-and-deep-learning-a-primer-e1e6c85ab2e3>

Course Notes

Communication

Course communication will take place through announcements in class, emails, GroupMe mobile application, and Blackboard (<http://blackboard.usc.edu/>). Many of the emails sent by the instructor will go through Blackboard. As a result, it is imperative that you have a fully operational Blackboard account with an active USC email address.

Posted Materials

Students will be provided, through Blackboard, access to a series of video lectures – some of which will be led by the professor and others of which will be available through external sources. In several instances, class slides or other information will additionally be posted to Blackboard for reference. Often, these will not appear online until **after** the session in which the content within those materials is addressed. Posted slides contain only a subset of all course content. Students are responsible not only for this posted content, but also the additional content presented within all class lectures, discussions, and activities. Students are strongly encouraged to take independent notes for review.

Grading Policies

To achieve an A or A- in this class, you will need to go well beyond the minimum requirements as stated in the syllabus in terms of the quality of your work and your involvement in and contribution to the class. Similarly, an A or A- on any assignment will reflect high quality work in excess of the minimum requirements addressed within associated assignment instructions. An A is a sign of superior work and, much like entrepreneurs' efforts, reflects the fact that you stood out from the crowd. All assignments will have complete instructions available in Blackboard and be discussed in class before they are due.

If you have any questions about your grade during the semester, please make an appointment to see me to discuss your concerns. Do not wait until the end of the semester to do so!

ASSIGNMENTS AND GRADING DETAIL

There are six assignments that must be completed in this course. Detailed instructions for all of these will be distributed and discussed separately, with all deadlines listed in the class schedule at the end of the syllabus.

- **Assignment #1:** This assignment requires you to reflect upon the type of entrepreneur you are, or identify which entrepreneur characteristics best match your background and vision.
- **Assignment #2:** This assignment will require you to pitch an idea for a high tech startup. This must be an original idea and you will create a high concept pitch deck included with your writeup. A SWOT analysis will also be required.
- **Assignment #3:** Assignment #3 focuses on Agile Methodologies and understanding how to manage a tech team. This assignment will accompany the in-class exercise on SCRUM.
- **Assignment #4:** This assignment is based on the Business Model Canvas. Students will be required to apply the business mode canvas to a startup and list out the 9 principles in detail.
- **Assignment #5:** This assignment focuses on digital marketing and will require you to begin the process of creating a campaign by understanding Google Keywords or App Store Optimization, creating digital ad units to be deployed across various social media platforms, and identifying audience targeting techniques.
- **Assignment #6:** Assignment #6 is based on Cryptocurrency and Blockchain. Students will apply their knowledge of blockchain technology and the various emerging alt-coins to startup fundamentals discussed in the class.
- **Midterm Project:** The midterm project requires all the knowledge and skills you have developed leading up to this point in the semester. In addition to the previous requirements from Assignment #2, the midterm will also require a detailed business model, comprehensive product plan, team overview, and customer discovery analysis.

- **Final Presentations & Deck:** The final presentation and deck is the conclusive, polished materials that will be representative of your final project. These materials will have gone through several iterations to make the deck and presentation presentable for venture funding consideration.
- **Final Project:** The final project is a culmination of everything learned in class throughout the semester. In addition to all the requirements from Assignment #2 and the Midterm, students will also be required to create a marketing video of the application, a detailed profit and loss (P&L statement), and a concise digital marketing strategy.

Assignments

Your final grade is based on an evaluation of the following activities:

Due	Assignment	Points	% of Grade
---	Participation	50	7%
1-17-18	Assignment #1 – Entrepreneurial Mindset	25	3%
1-24-18	Assignment #2 – Tech Product Pitch & SWOT	50	7%
1-31-18	Assignment #3 – Agile / SCRUM	25	3%
2-14-18	Assignment #4 – Business Model Canvas	25	3%
3-21-18	Assignment #5 – Growth Hacker Marketing	25	3%
4-11-18	Assignment #6 – Cryptocurrency and Blockchain	25	3%
2-28-18	Midterm Project	225	30%
4-25-18	Final Project Presentations & Deck	50	7%
5-07-18	Final Project	250	33.3%
	TOTAL FOR CLASS	750	100%

Assignment Submission & Late Policy

All PROJECTS and Due Dates are presented in the Class Schedule.

The following deductions apply for late submission of the course work:

Submission between the beginning & end of class:	10% loss of score
Submission between the end of class and 48 hours of the date due:	20% loss of score
Submission between 48 hours and 7 days after the date due:	30% loss of score
Submission 7 days after date due:	NO SCORE

If you must be absent for a class meeting, make sure you have submitted your assignment according to the assignment guidelines in order to be considered on time.

Evaluation of Your Work

Papers, Videos, Slides, and Other Submissions

You may regard each of your submissions as an “exam” in which you apply what you’ve learned according to the assignment. I will do my best to make my expectations for the various assignments clear and to evaluate them as fairly and objectively as I can. If you feel that an error has occurred in the grading of any assignment, you may, within one week of the date the assignment is returned to you, write me a memo in which you request that I re-evaluate the assignment. Attach the original assignment

to the memo, in which you explain fully and carefully why you think the assignment should be re-graded. Be aware that the re-evaluation process can result in three types of grade adjustments: positive, none, or negative. (Note: Complaints on the date of a graded assignment's return to you will not be addressed.)

Participation

The Entrepreneur Program is a real life experience and as such expects you to be real world professionals. The class is treated as a business meeting. The motto is *"treat each other as you would a customer."* Therefore, tardiness and absences without notice are not acceptable. If you have a customer meeting, you will be on time. If you cannot be on time, you will call well in advance. Similar etiquette is required in this program.

Your responsibilities for all classes are to:

1. Attend the class promptly
2. Complete all assigned projects
3. Participate actively with teams and in classroom discussions

Scores for individual student contributions to team projects are assigned by me, based on my observations of the team's working dynamics, my assessment of the team's project quality, and thoughtful consideration of the information provided through your peer evaluations

ADDITIONAL INFORMATION

Lloyd Greif Center for Entrepreneurial Studies 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 any 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 Entrepreneur Program classes or events. Receipt of this policy and registration in our classes are evidence that you understand this policy and will abide by it.

Add/Drop Process

Most Marshall classes are open enrollment (R-clearance) through the Add deadline. If there is an open seat, students can add the class using Web Registration. If the class is full, students will need to continue checking the *Schedule of Classes* (classes.usc.edu) to see if a space becomes available. Students who do not attend the first two class sessions (for classes that meet twice per week) or the first class meeting (for classes that meet once per week) may be dropped from the course if they do not notify the instructor prior to their absence.

Retention of Graded Coursework

Final exams and all other graded work which affected the course grade will be retained for one year after the end of the course **if** the graded work has not been returned to the student. If I returned a graded paper to you, it is your responsibility to file it.

Technology Policy

Laptop and Internet usage is not permitted during academic or professional sessions unless otherwise stated by the respective professor and/or staff. Use of other personal communication devices, such as cell phones, is considered unprofessional and is not permitted during academic or professional sessions. ANY e-devices (cell phones, iPads, other texting devices, laptops, I-pods) must be completely turned off during class time. Upon request, you must comply and put your device on the table in off mode and FACE DOWN. You might also be asked to deposit your devices in a designated area in the classroom. Videotaping faculty lectures is not permitted due to copyright infringement regulations. Audiotaping may be permitted if approved by the professor. Use of any recorded or distributed material is reserved exclusively for the USC students registered in this class.

USC Statements 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 & 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/>

Student Support & 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 – <https://diversity.usc.edu/>

Tab for Events, Programs and Training, Task Force (including representatives for each school), Chronology, Participate, Resources for Students

Students with Disabilities

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). DSP 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 me (or to your TA) as early in the semester as possible. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

Emergency Preparedness/Course Continuity

In case of a declared emergency if travel to campus is not feasible, the *USC Emergency Information* web site (<http://emergency.usc.edu/>) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Blackboard learning management system (blackboard.usc.edu), teleconferencing, and other technologies.

Course Calendar

<p>Week 1 1/10/18</p>	<p>Lecture: Introduction and Course Overview</p> <ul style="list-style-type: none"> • Syllabus & Blackboard • Instructor Background • Course Goals • Overview of Assignment #1 • Entrepreneurial Mindset <p>Assignment: no assignment first week Reading: no reading first week</p>
<p>Week 2 1/17/18</p>	<p>Lecture: Technology Overview + Verticals</p> <p>Technology Foundation</p> <ul style="list-style-type: none"> • Emerging Technologies • Vertical Industries (Social, Entertainment, Auto, Lifestyle, etc.) • Technology Reimagined <p>Prototyping Applications</p> <ul style="list-style-type: none"> • POP App, Fluid UI, Sketch, Photoshop, etc. • Getting to a minimum viable candidate (MVP) • UI/UX Tips (pptrns.com) <p>How to brainstorm & ideate new startup ideas & businesses</p> <ul style="list-style-type: none"> • SWOT Analysis • High Concept Pitches <p>Assignment #1 due (Entrepreneur Types) Reading: Blackboard Week 2</p>
<p>Week 3 1/24/18</p>	<p>Lecture: Pitching Startup Ideas</p> <p>Startup Idea Presentations</p> <ul style="list-style-type: none"> • Project selections from class & instructor • Creating a rubric for green-lighting projects • Importance of Teams and selecting key members <p>Assignment #2 due (Startup / Pitches / SWOT) Reading: Blackboard Week 3</p>
<p>Week 4 1/31/18</p>	<p>Lecture: How to Run a Tech Team / Project</p> <p>Overview of Agile Development</p> <ul style="list-style-type: none"> • SCRUM and Agile Methodologies • Why projects typically fail • Overview of Trello • Working with tech teams & team dynamics • In-Class Lego Exercise Building a City • Reflections on Project Management

	<p>Effective Market Research</p> <ul style="list-style-type: none"> • Identifying market opportunity & TAM • Competitive landscape • Available online resources for effective market research <p>Assignment #3 overview Reading: Blackboard Week 4</p>
<p>Week 5 2/07/18</p>	<p>Lecture: Product Management & Business Models</p> <p>Understanding the role of a PM (Product Manager)</p> <ul style="list-style-type: none"> • Overview of product management for high tech startups • Roles and responsibilities of a product manager • Trends and best practices for product management • Reaching Product Market Fit (PMF) <p>Business Model Generation</p> <ul style="list-style-type: none"> • Definition of a business model • 9 Building Blocks of the Business Model Canvas • Business Model Canvas examples <p>Assignment #3 due (Agile /Scrum) Reading: Blackboard Week 5 (Product Management & Business Model Canvas)</p>
<p>Week 6 2/14/18</p>	<p>Lecture: Virtual Reality</p> <p>Virtual Reality – The Ultimate Empathy Machine</p> <ul style="list-style-type: none"> • What is virtual reality? • Live Action vs. Interactive VR • Who are the major players <ul style="list-style-type: none"> ○ Vive, Facebook/Oculus, PSVR, Daydream, GearVR • What are the different Virtual Reality categories • Hardware players and Adoption Building a defensible business model for a VR company • Introduction to Mixed reality <p>Assignment #4 Due (Business Model Canvas) Reading: Blackboard Week 6</p>
<p>Week 7 2/21/18</p>	<p>Lecture: Augmented Reality</p> <p>Overview of Augmented Reality</p> <ul style="list-style-type: none"> • AR Technology • Computer Vision • SLAM (Simultaneous Localization and Mapping) • Platform leaders <ul style="list-style-type: none"> ○ Magic Leap, Meta, ODG, Apple, Google

	<ul style="list-style-type: none"> • Development strategies • Design Considerations for AR <p>Guest Speaker</p> <p>Assignment: Work on Midterm Project Reading: Blackboard Week 7</p>
Week 8 2/28/18	<p>Lecture: Artificial Intelligence & Machine Learning</p> <p>Overview of AI (Artificial Intelligence)</p> <ul style="list-style-type: none"> • What is Artificial Intelligence • Use cases of AI <ul style="list-style-type: none"> ○ Vertical markets of AI • Deep Learning & Machine Learning • Societal Impacts • Strategies for integrating AI in your startup <p>Assignment: Midterm Projects Due Reading: Blackboard Week 8</p>
Week 9 3/07/18	<p>Lecture: Digital Marketing Workshop Part 1</p> <p>Building a Digital Marketing Strategy</p> <ul style="list-style-type: none"> • Creating Key Performance Indicators (KPIs) <ul style="list-style-type: none"> ○ Retention ○ Revenue ○ Daily & Monthly Active Users ○ Customer Acquisition Costs • Understanding Marketing Analytics • Identifying Marketing Channels for Audience Targeting <p>Reading: Blackboard Week 9, Growth Hacker Marketing Book pages 1-51</p>
3/14/18	SPRING BREAK – NO CLASS
Week 10 3/21/18	<p>Lecture: Digital Marketing Workshop Part 2</p> <p>Big Data & Analytics</p> <ul style="list-style-type: none"> • Big Data terms every entrepreneur should be familiar with • Web vs. Mobile Analytics • Overview of the major analytic players: <ul style="list-style-type: none"> ○ Google Analytics / Omniture ○ Flurry / MixPanel / Localytics ○ Tune • How to integrate the correct analytics into your product

	<p>Growth Hacking Techniques</p> <ul style="list-style-type: none"> • Going Viral • Email marketing, blogs, leveraging PR and other media • Leveraging social media platforms to drive growth • Measuring your marketing initiatives • Understanding the core loop • Growth hacking techniques from leading tech companies <p>Assignment #5 Due (Growth Hacker Marketing) Reading: Blackboard Week 10, Growth Hacker Marketing Book pages 52-83</p>
<p>Week 11 3/28/18</p>	<p>Lecture: Transportation and Technology</p> <p>Autonomous Driving</p> <ul style="list-style-type: none"> • Landscape of the autonomous driving industry • Regulatory considerations • Technology overview • Startup Opportunities <p>SpaceX</p> <ul style="list-style-type: none"> • SpaceX Guest Speaker • Company Overview • Product Management and Agile Methodologies at SpaceX • Analytics and relevant Key Performance Indicators (KPIs) <p>Reading: Blackboard Week 11</p>
<p>Week 12 4/04/18</p>	<p>Group Meetings (in JFF 5th Floor Entrepreneurship Offices)</p> <p>Work on Final Projects</p> <p>Reading: Blackboard Week 12</p>
<p>Week 13 4/11/18</p>	<p>Lecture: Fintech (Financial Technology)</p> <p>Cryptocurrency and Blockchain Technology</p> <ul style="list-style-type: none"> • Understanding why fintech and cryptocurrency is one of the fastest-growing areas for venture capitalists • Technology platforms & considerations for Blockchain-based companies • Opportunities for entrepreneurs pursuing the fintech industry • Bitcoin, Ethereum, Exchanges, Blockchain etc. <p>Assignment #6 Due (Cryptocurrency + Blockchain) Reading: Blackboard Week 13</p>

<p>Week 14 4/18/18</p>	<p>Lecture: Profit and Loss Statements / Business Modeling</p> <p>Creating a realistic business model</p> <ul style="list-style-type: none"> • Costs & Revenue drivers • Assumptions for revenue growth • Understanding User Metrics and growth components • Marketing spend / User Acquisition costs • Churn metrics vs. Virality <p>Startup Checklist</p> <ul style="list-style-type: none"> • Corporate Structure • Legal considerations • Impactful Technology Decisions • Corporate Governance • Human Resource Topics • Marketing & Branding • Product Management • 3rd Party Vendor Recommendations <p>Reading: Blackboard Week 14</p>
<p>Week 15 4/25/18</p>	<p>FINAL PROJECT PRESENTATIONS</p>
<p>05/02/18 Wednesday 4:30-6:30pm</p>	<p>FINAL PROJECTS DUE</p>