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Spring 1-1-2019

Tech Entrepreneurship: An Experiential Journey

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Recommended Citation

Arora, Punit, "Tech Entrepreneurship: An Experiential Journey" (2019). *CUNY Academic Works*.
https://academicworks.cuny.edu/cc_oers/207

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ECO 41250: ENTREPRENEURSHIP (NAC 4/222)
Fridays, 2pm-315pm (Hybrid)
Spring 2019

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Office hours: Fridays, 3:30-5:30pm: Strictly by making an appointment using this [calendar link](#).

Caution:

1. This course uses [Lean Launchpad](#) for creating entrepreneurial ventures that start small but can be scaled up fairly quickly. You should you take this class only IF you are interested in creating such ventures.
2. This course demands extensive teamwork and personal initiative. You will need to spend considerable time on research, learning and team meetings beyond the classroom. This involves committing yourself to working for at least **10 hours/week beyond the class-time**.
3. This course provides real world, hands-on learning on what it's like to actually start a high-tech company. This class *is not about how to write a business plan*. It's *not an exercise on how smart you are* in a classroom, or how well you use the research library to size markets. This is a practical class – essentially a lab, not a theory or “book” class. Our goal, within the constraints of a classroom and a limited amount of time, is to create an entrepreneurial experience for you with all of the pressures and demands of the real world in an early stage start up.
4. You will be getting your hands dirty talking to customers, partners, competitors, as you encounter the chaos and uncertainty of how a startup actually works. You'll work in teams learning how to turn a great *idea* into a great *company*. You'll learn how to use a *business model* to brainstorm each part of a company and *customer development* to get out of the classroom to see whether anyone other than you would want/ use your product. Finally, based on the customer and market feedback you gathered, you would use *agile development* to rapidly iterate your product to build something customers would actually use and buy. Each block will be new adventure outside the classroom as you test each part of your business model and then share the hard-earned knowledge with the rest of the class.
5. Startups culture is dramatically different from the university or large organizations most of you are familiar with. At times it can feel brusque and impersonal, but in reality is focused and oriented to create *immediate action* in time- and cash-constrained environments. We have limited time and we push, challenge, and question you in the hope you will quickly learn. We will be direct, open, and tough – just like the real world. Hopefully, you recognize that these comments aren't personal, but part of the process.
6. This class is offered in partnership with [Zahn Innovation Center](#), and all students are encouraged to make the most out of the resources provided by the center. All students are expected to attend certain classroom sessions and a minimum of three optional events organized in collaboration with the Zahn center.

Recommended (but not required) readings and participation:

1. The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company by Steve Blank, Bob Dorf. ISBN: 0984999302. Or read Blank's blog: <https://steveblank.com>
2. Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers; [Alexander Osterwalder, Yves Pigneur](#). ISBN: 9780470876411.

Please note that certain classes will be held in *joint sessions for the two sections of entrepreneurship*, such as when guest speakers are invited to give advice to student entrepreneurs or when events are organized to create pitching or networking opportunities. These sessions will be notified as much in advance as possible to give you time to plan your attendance.

3. **The Flipped Classroom:** Unlike a traditional classroom where the instructor presents lecture material, this course relies on self-initiative, readings and free online resources such as those available on Udacity.com. There will be a limited number of lectures, but most of the time in classroom will be used for discussions and sharing progress. The assigned online resources will help you complete your *homework*. The information in them is essential for you to complete your weekly interviews and present the insights learned that week.
4. **Experiential Learning:** You will be spending a significant amount of time in between each of the lectures outside the class talking to customers. Each week your team will conduct a minimum of 10 customer interviews focused on a specific part of the business model canvas. This class is a simulation of what startups and entrepreneurship is like in the real world: chaos, uncertainty, impossible deadlines in insufficient time, conflicting input, etc.

Recommended resources:

<http://www.inc.com/home/>

<http://www.businessweek.com/smallbiz/>

<http://www.fortune.com/fortune/smallbusiness>

<http://www.marketingtechie.com/>

<http://onstartups.com/>

<http://www.avc.com/>

<http://bhorowitz.com/>

<http://startuplessonslearned.blogspot.com/>

<http://steveblank.com/>

<http://www.fastcompany.com>

<http://www.entrepreneur.com/>

<http://www.usatoday.com/money/smallbusiness/front.htm>

<http://www.sba.gov/index.html>

<http://www.venturehacks.com/>

<http://altos.typepad.com/>

<http://www.bothsidesofthetable.com/>

<http://redeye.firstround.com/>

<http://www.paulgraham.com/>

Course Overview:

This course is about creating entrepreneurial businesses, and the course focuses on tech startups that with vision, planning, hard work and luck can often be built into large businesses. Specifically, this course will focus on developing and testing business models and plans that can be used to chart out road maps for developing such startups.

A business model and its more detailed version business plan serve as key vehicles in entrepreneur's efforts to build business. They help the entrepreneur attract much-needed resources from others because the plan conveys what the business is about, how management visualizes it, what strategies it will pursue, and what the financial risks and rewards most likely will be. It also helps determine the milestones by which entrepreneur and various investors can evaluate the progress made by the business. However, a great plan by itself does not guarantee success. To be successful, a startup requires successful execution of the plan, while retaining the flexibility to pivot and adopt the strategies best suitable to exploiting the marketplace opportunities.

This course uses the interface of management, strategy, operations, supply chain, finance, and entrepreneurship in the context of independent, new ventures to develop – in each student – a mastery of the skills and competencies required to recognize and exploit entrepreneurial opportunities. We focus on innovation and venture creation in the context of a dynamic and uncertain marketplace.

Rationale and Objectives:

Even during vibrant economic times, and especially during difficult times like present, early-stage companies exist in an environment of extreme risk. A majority of new enterprises — in fact, anywhere between 75% to 90% — fail within their first few years of initiation because of lack of resources, poor decision-making, team conflicts, management problems, or failure to adjust their business models. Certain industries like technology products and services have even greater failure rates.

Despite such daunting odds, a stunning one in ten adults in the US actively pursues entrepreneurial dreams (Mullins, 2010). This may partly be explained by the fact that historically financial returns are not evenly distributed among startups and while the vast majority of them eventually fail, those that succeed tend to deliver extraordinary profits: Imagine companies like Google, Apple, Facebook, Pinterest and Instagram. All of whom were startups just a few short years ago. Nearly 100% of the profits from investing in a startup can be attributed to less than 10% of the startups. Thus, while some entrepreneurs are discouraged by the present state of the economy, others note that many of today's iconic technology companies were formed in difficult economic times. This course offers the tools necessary for founders to make smarter decisions and help increase the probability of success in the context of such high-risk, high-reward environments.

Therefore, the objectives of this course are to:

1. Develop and write an objective, cohesive, and integrated *executive summary* of business plan.
2. Demonstrate mastery of a number of analytical tools, methodologies, and frameworks useful in creating a summary, which can be quickly expanded to a business plan, if and when needed.
3. Identify core component parts required to develop a business plan, e.g. executive summary, industry, products/services, economics, marketing, operations, design and development, timeline/schedule, critical risks, problems and assumptions, financial planning, proposed company offering, and appendices.
4. Evaluate new venture ideas, and the underlying opportunities that give rise to those ideas.
5. Explain the interrelationship/interdependency of marketing, accounting/finance, operations/production, and human resources required to formulate a business plan for a "for profit" technology startup.
6. Determine primary and secondary research resources used in performing due diligence in order to develop a business model or plan.
7. Understand the nature of the entrepreneurial process and the great many contexts and environments in which that process applies.
8. Develop a presentation oriented towards prospective investors, lenders, or other financial backers of the proposed business organization.
9. Present executive summary of the business plan in a public, competitive settings such as shark tank, elevator pitch or investor deck.
10. Promote adaptable and reflective thinkers! The student should complete the course with a self-awareness of their own strengths (and challenges) in the context of addressing problems in an entrepreneurial environment.

Requirements: All business concepts proposed for the class must conform to the following minimum requirements:

1. **Novelty:** A fundamentally new product, service, or business model. The proposed business concept must generally fall into one following categories:
 1. Social entrepreneurship students must focus on a social problem that can be solved by using new and innovative business models. Technology entrepreneurship students must focus on use of advanced technologies in conjunction with innovative business models.
 2. **Product/Service:** focused on the development, marketing, and sale of a new and/or innovative (not currently available or radically different) product, service or solution.
 3. **Business Model:** a business based on a fundamental redesign or re-orientation of *how* an existing product or service is delivered to a targeted market segment (e.g. Netflix).
 4. **Scalability:** the potential of the venture to grow as an attractive investment. The products/service/business model must accommodate growth such that revenues will exceed \$1M (minimum) at five years.

The instructor maintains discretion on a case-by-case approval, given above guidelines.

Evaluation:

Your final grade will be based on:	Due Date	Points
Elevator pitch 1: Initial idea proposal	Consult class schedule	5
Presentations 1 to 5	Consult class schedule	25
Class participation, pop quizzes & weekly progress reports	Consult class schedule	25
Executive summary & business model canvas	Consult class schedule	20
Product prototype/ Phase 1 website:	Consult class schedule	10
Final presentation	Consult class schedule	15
Investor pitch/ presentation (selected teams)	Consult class schedule	10
Total		100
Grading Scale		
94% - 100% = A	90% - 93% = A-	87% - 89% = B+
84% - 86% = B	80% - 83% = B-	77% - 79% = C+
74% - 76% = C	70% - 73% = C-	67% - 69% = D+
64% - 66% = D	60% - 63% = D-	0% - 59% = F

(This is just an overview of the assignments. More detailed instructions will be provided on the Blackboard in due course.)

1. **Elevator pitch 1:** You will be given five minutes to present two of your best business ideas to instructor and classmates. Your pitch will be followed by some probing questions for next three to five minutes. This might be in the nature of asking you to clarify or justify your ideas. An effective elevator pitch will be succinct, direct, logical and factual. More instructions on EPs will be provided on the Blackboard.
2. **Business model canvas:** A one-page overview of how the business plans to achieve its objectives. A business model provides information on following nine aspects of business: Key activities, Value propositions, Customer relationships, Key partners, Revenue streams, Customer segments, Key resources, Cost structure, and Marketing Channels. Please see ‘course content folder’ on Blackboard for samples.
3. **PowerPoint Presentations:** Specific tasks/ assignments are noted in the class schedule for each of the five presentations at the end of this syllabus. More instructions would be provided on request or as needed.
4. **Executive summary:** All teams are required to submit a 2-page executive summary of the business plan in the format provided.
5. **Product prototype:** All teams are expected to prepare MVP (Minimum Viable Product) prototypes. If they plan to launch a website, then they should have an early version of the website ready. If the website is very complex and cannot be launched before the end of the term, then they should with the prior approval of instructor, at the very least have a very detailed functional plan including technical specification ready to be shipped out to a design team.
6. **Final Presentation:** You will have no more than 5 minutes each to present your business plans to a guest panel. This guest panel will consist of 3 faculty members from CCNY, who will nominate

the best teams to make presentation before an external panel, which depending on your progress, would in all likelihood include 3-5 experienced executives and investors.

7. **Elevator pitch 2- Overview of business plan:** This section is relevant only to the teams nominated to present before an external panel:

Only a selected number of teams (3-4) would be given an opportunity to present before an external panel. So, first off, let me congratulate you on this high honor. You should take this opportunity seriously to build networks with experienced professionals, who can easily get you access to important resources needed to build this or other future ideas that you may have. It is also a question of school's reputation, which we all need to take seriously to build our program for you and your future colleagues. I am sure given the amount of work you to put in to earn this opportunity; you would do all you can to give a good account of your team. I just wanted to reiterate its importance for all of us.

The format: One person per team will be given 3 to 5 minutes to pitch their idea to the panel. In doing so, imagine that you have been invited to present before a group of investors, who are routinely looking for good investment opportunities. Your pitch will be followed by some probing questions for next 8-10 minutes. This might be in the nature of asking you to clarify or justify your ideas. An effective elevator pitch will be succinct, direct, logical and factual. More instructions on EPs will be provided on the Blackboard.

8. **Pop quizzes (0 to 4):** There will be a minimum of 0 quiz during the semester and a maximum of 4. There will be fewer quizzes if the class is found to be actively keeping up with the readings and participating in the class. These will be based on chapters, videos or class discussions for the day. Their purpose is to encourage you to keep up with your readings.
9. **Participation: Attendance is mandatory for all classes.** Because of the active learning approach of this class, much of the learning occurs in the classroom setting, where ideas are shared, challenged, and debated. These discussions allow individuals from different backgrounds to understand different perspectives of an issue. To get a high participation grade, your goal should be to make your presence in the class felt. You can do this by regularly sharing your thoughts, remarks, examples and insightful questions. **Overall, your participation is evaluated as follow:**

Points	If you....
9-10	Regularly contribute on a voluntary basis, with insights and examples that add value to the discussion. Demonstrate sound reasoning and judgment. Contribute to a positive learning environment and exhibit positive attitude. Ask questions of peers that demonstrate effective listening and critical thinking skills.
6-8	Contribute periodically, or only involuntarily when called upon, but make good contributions when you do speak
1-5	Attended class, but rarely contribute and/or when called upon, seem unprepared or inattentive. Fail to contribute to the positive learning environment and exhibit poor attitude.
0	Did not attend the class, feel asleep in class, used cell phone, made disruptive comments, surfed internet or sent emails during class.

10. **Bonus for special milestones:** Any of following milestones by grading period would qualify you for a special bonus of up to 20 points solely at instructor's discretion:
1. Credible investment commitment of \$5000 or more from unrelated investor/s
 2. Sales (or credible pre-orders) of \$5000 or more from unrelated customers
 3. A functioning website/ app with reasonable (negotiated targets) traffic
 4. Admission at prestigious incubators such as y-combinator or Google Startup Launch
 5. Strategic partnerships with a prestigious corporation, investor, university, etc.

¹ If we cannot find at least 3 teams that seem ready to present, external panel pitches would be canceled.

6. Advanced product/ technology development or other exceptional work
7. Prize-winning entries at prestigious entrepreneurship competitions

IMPORTANT GROUND RULES

1. **Expectations and Responsibilities:** As your instructor, it is my goal to foster a mutually respectful learning environment. My responsibilities as an instructor include: to be prepared to every class, focus on your learning, create a good environment for your learning, exhibit professional behavior, design course activities to achieve the stated learning objectives, use my best professional judgment to evaluate performance fairly, uphold high standards of academic integrity, and be available outside of class to answer any additional questions you may have. As a student, you are expected to: treat others with respect, be prepared to class, refrain from side conversations during class, refrain from reading outside materials during class sessions, plan to stay until the end of class and adhere to high standards of academic integrity. Disruptive behavior in class would qualify as negative participation.
2. **Teams:** Students will form **teams of three (four, if absolutely necessary) persons each.**
3. **Working in teams:** You should try to resolve any disputes that may arise in work groups early. If you believe a member of your team is not carrying his/her weight, tell the member as soon as you can. Teams should try to resolve any disputes on their own if at all possible. I will intervene if you come to me and tell me that you have reached an irresolvable impasse. Also, remember that *your team members will submit peer evaluation of your contribution to teamwork at the end of semester, and this evaluation will determine if you get the same, lower or higher grade than the rest of your team.*
4. **Peer evaluations** will be distributed at the conclusion of the semester to all teams. Any team member can get a significantly lower (or higher) grade than the rest of her/his team. In fact, even if your team gets an “A”, you can still get an “F” if you failed to meet mutually determined expectations. Since in real life, your team would have the power to fire you for failure to perform, it is very fair that here they, at least, have a say in your grade. Based on this feedback, I reserve the right to determine fair grade.
5. **Extra Credit:** No opportunities for extra credit will be offered, and in the interest of fairness to all students there will be no exceptions to this policy. Your business is your opportunity to earn much more than extra credits. Therefore, you should not need to beg me for any extra credits.
6. **Class Attendance:** If you miss three or more classes without the prior permission of the instructor, **you get an automatic “F” for the entire course.** Out of consideration for your fellow classmates and instructor, it is imperative that you be **ON TIME** for all classes. For the same reason, please **switch off or mute** all devices emitting any kind of sound. Lateness and noise are highly disruptive! I reserve the right to deny access to the class to students who are late.
7. **Announcements:** All announcements will be posted on the Blackboard. It is the student’s responsibility to check their Blackboard account for communications and changes to the course several times a week. It is your responsibility to update your email address on the Blackboard. If you miss any announcement because your Blackboard email address is invalid, there is nothing I can do about it.
8. **Written Assignments:** All written assignments are due at the beginning of class. You can email them to me, drop them off in my mailbox in the Economics Department, or hand me a copy in the classroom. A big part of your grade is determined by writing assignments, and their quality (not their length!) is very important. If you are unsure of your writing skills, you are strongly encouraged to finish your assignments early and take them to the **Writing Center** (located in the NAC building, Amsterdam Ave, Plaza 3rd

floor South). You can schedule an appointment through their website:
<http://www.cuny.cuny.edu/writingcenter/>.

9. **Academic Integrity:** Academic misconduct/dishonesty is a very serious issue with potential consequences ranging from failure in the course in question to dismissal from the University. Academic misconduct/dishonesty is defined broadly as any act that violates the rights of another student in academic work or that involves misrepresentation of your own work. This includes (but is not limited to) cheating on assignments or examinations; plagiarizing, which means representing as your own work any part of work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials; or interfering with another student's work. To maintain conditions of justice for all students, academic dishonesty in any portion of the academic work for a class shall be grounds for awarding a grade of F or N for the entire course.

10. **Special Learning Needs:** Qualified students with disabilities will be provided reasonable academic accommodations if determined eligible by the AccessAbility Center (AAC). Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility from the AAC, which is located in NAC 1/218. It is the student's responsibility to initiate contact with the AAC and to follow the established procedures for having the accommodation notice sent to the instructor."

11. **Policies on Non-Discrimination and Sexual Harassment:** The City College prohibits discrimination on the basis of age, gender, sexual orientation, transgender, disability, genetic predisposition or carrier status, alienage or citizenship, religion, race, color, nationality or ethnic origin, or veteran, military or marital status in its student admissions, employment, access to programs, and administration of educational policies. Questions, concerns, or complaints based on any of the above may be directed to the Office of Diversity and Compliance, Wille Administration Building, Room 212 (212-650-6310). In addition, the specific form of gender discrimination, "sexual harassment," is prohibited by the policies of the Board of Trustees of The City University of New York. Student complaints alleging sexual harassment should be directed to the Sexual Harassment Awareness and Intake Coordinator (see Appendix B.15 of the Bulletin, and the Sexual Harassment brochure for the name of the current Coordinator and a list of Committee members who may be contacted). Brochures are available in the Office of Diversity and Compliance, the Office of Human Resources, the Office of the Vice President for Student Affairs and at the NAC Welcome Center. Information is also available on the City College website under Office of Diversity <http://www.cuny.cuny.edu/affirmativeaction/>.

12. **Late Work:** Grades on late work will fall one notch (i.e. A to A-) per day that is it late. All grade disputes must be submitted via email to me within 48 hours from the time the grade is assigned.

13. **Changes to the syllabus:** Finally, I reserve the right to amend all policies stated above. Please make sure to check the class page on Blackboard regularly, where I will post announcements and any changes to the syllabus.

TENTATIVE CLASS SCHEDULE (Please regularly check Blackboard for updates)

Week	Date	Class activity	Assignment	Due date	Tasks for the forthcoming week
1	1/25/19	Founding teams and ideas	Post on the course blog a paragraph outlining your background and interests along with a recent picture to initiate team formation	9/3/18	Find your team

Week	Date	Class activity	Assignment	Due date	Tasks for the forthcoming week
2	2/1/19	Idea generation process	Finalized team info	9/10/18	Explore entrepreneurial ideas
3	2/8/19		Submit 3-4 top ideas (one paragraph/ idea)	9/15/18	Explore and test your business ideas (conduct at least 5 customer interviews/ idea)
4	2/15/19	Elevator Pitch 1: Pitch your ideas for feedback: selection, revision & change	All teams pitch their TWO BEST ideas for feedback	9/17/18	Use the feedback from the first pitch to refine ideas and start planning for detailed market research
5	2/22/19	Field visit to Zahn center			Design your market research plans
6	3/1/19	Presentation 1: All teams to present their competitor research and analysis			Start competitor research and analysis
7	3/8/19	Class discussions on revenue models			Continue market research
8	3/15/19	Presentation 2: All teams to present their market research with focus on customer segments and channels			Continue market research
9	3/22/19	Class discussions			
10	3/29/19	Presentation 3: All teams to present their market research with focus on customer relationships			Product and market research
11	4/5/19	Prototyping MVP (Minimum Viable Product) Class discussions	Summary of market research		
12	4/12/19	Presentation 4: All teams to present their financial statements			Start financial analysis Draft executive summary of complete business plan
13	5/3/19	Presentation 5: All teams to present their MVP	Update business model canvas		
14	5/10/19	Presentation 6: Complete investor deck	Draft executive summary for feedback		Use feedback to revise your executive summary
15	5/17/19		Final draft of the executive summary due		