

COURSE INFORMATION

Course title: Technology Entrepreneurship
Course code: BAEN506/APSC541 Credits: 3.0
Session and term: 2024W2 Class location: DL009, DL005
Section(s): 001/201, 002/202 Class times: W 6:00pm-9:30pm
Course duration: Jan – Apr 2024 Pre-requisites: UBC graduate student
Division: Entrepreneurship Co-requisites: n/a

INSTRUCTOR INFORMATION



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TA INFORMATION

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COURSE DESCRIPTION

This course provides an experienced-based exposure to the process of starting technology-based entrepreneurial ventures. The course is suitable for students interested in exploring the process of launching start-ups, and the multiple challenges associated with it. The main project is to present a start-up opportunity that is identified by a team of students. This course is hosted jointly between the Sauder School of Business and the Faculty of Applied Sciences and is also open to entrepreneurial-

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mindful students across UBC that are enrolled at master, PhD or postdoc levels. The course harnesses Steve Blank's Lean Launch Pad methodologies.

This course is interdisciplinary and entirely project-based. This course provides students with an experience-based introduction into the process of starting a technology company. It is a real-life immersion into the process that founders go through when starting a high-tech company. Students will be faced with the key issues involved in evaluating market opportunities, designing profitable business models, producing a solid business plan, raising capital and developing a winning team. Students will gain the skills and tools to creatively commercialize high tech research into profitable businesses. All venture ideas are subject to Professors' approval.

REGISTRATION

This course is open to students from ALL faculties (i.e.: not limited to APSC and Sauder) and has the primary goal of providing students with knowledge and practical experience related to the formation of an entrepreneurial enterprise based on the development of a new product or process. Typically working in teams of 6 students, the end-target in the course is to produce a viable product prototype and the necessary business plan to ensure its success in the marketplace.

This course is co-delivered by Applied Science and Business but open to UBC students from any faculty. Students from the Robert H. Lee or other non-APSC faculties who take this course will be registered in BAEN506. APSC students will be registered in APSC541.

COURSE FORMAT

This course involves significant in-class discussion and group work. It is expected that students come fully prepared, either via the pre-recorded lectures, readings or assignments, set out in this outline and detailed on Canvas. There will be short lectures, broken down by topics followed by group discussion & work. Other online forms of communication will be used to support students.

Students are expected to present weekly to the classroom on the progress they are making on their ideas. This progress will include demonstrating taught material as well as presenting results from customer & expert interviews. We recommend that each group perform 15-20 interviews per week with prospective customers (average of 3-4 per person).

This course does not have an exam, but will have final presentations during the exam periods.

The course is taught in a "flipped classroom" format, with small group exercises and informal feedback sessions. This requires that you come to classes prepared, a) by doing the relevant directed readings, b) by undertaking the weekly work on customer discovery (interviews) and related work, and c) documenting and presenting progress weekly to the classroom. Students should be prepared to dedicate a minimum of 5+ hours per week to sufficiently prepare for classes and external presentations.

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The course follows a team-learning format where teams are self-selected before Class 1. Students will stay with these teams for the duration of the course. If there are any problems in the group (e.g., free riders, group members being chronically late, etc.) the group members are expected to try to resolve the issue themselves and if the problem is not sufficiently resolved, only then should the group make one of the instructors aware of the issue through email or iPeer.

Each student team will pick its own venture/startup ideas. It is common for teams to start with several ideas, and then to change to another idea at a later stage, or to at least significantly pivot or narrow from one of the original ideas. You will be encouraged to pick something disruptive and viable. This is a short course and the primary intent is to help you learn a process for starting a venture. It is recommended that teams draw up a simple written note of mutual understanding, outlining that they each have an equal share of the input and output of the venture during the course. This should be revisited at the end of the course and revised. Typically, at the end of the course there is an idea but no value. Everyone has an equal share of nothing. If one or more team members then want to pursue the idea further and add value in creating a venture, they should be free to do so.

LEARNING OBJECTIVES

By the end of this course, students will be able to:

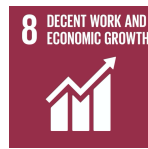
1. Identify the essential component of planning a new start-up, including:
 1. Recognizing viable market opportunities
 2. Market assessment via secondary market research and customer discovery via primary market research
 3. Creating a profitable business model and an executable business plan
 4. Protecting the intellectual property at the heart of their technology company
 5. Developing financial projections that are aligned with the fundamentals of the proposed business plan
2. To work with students in other discipline, integrate creative business strategies with solid engineering and effectively work in multi-disciplinary teams
3. To make decisions in highly uncertain and unstructured environments, and take in feedback from a large variety of sources that use it to improve their business plans, or help them to 'pivot' and find alternative ideas or approaches
4. Present coherent business models, communication with industry mentors and advisors.

SUSTAINABLE DEVELOPMENT GOALS (SDGS)

At UBC Sauder, we are committed to responsible business practices that can have transformative impacts on society. One of the ways we are reinforcing our commitment to responsible business is by showcasing relevant content in our courses via the lens of the [United Nations Sustainable Development Goals](#). In this course, we will touch on topics that relate to the following goals:

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In addition to the SDGs we aim for in this class, students are encouraged to form groups and work on projects that achieve additional SDGs. This class has produced ventures that have gone on to make impacts on Goal 2: Zero Hunger, Goal 3: Good Health and Well-being, Goal 7: Affordable and Clean Energy, Goal 13: Climate Action and Goal 14: Life Below Water.

ASSESSMENTS

Summary

<u>Component</u>	<u>Weight</u>
Ideation Presentation	10%
Interview Report	10%
Lead Idea Presentation	20%
Prototyping Plan	10%
Final Prototype	20%
Final Presentation	20%
Reflection paper	<u>10%</u>
Total	<u>100%</u>

Details of Assessments

Ideation Presentation

This presentation will detail the three lead ideas your team determined to be sufficient for this course. The method for forming ideas will be presented to students ahead of the assignment; however, expect to draw on ideas that have a unique advantage, interesting market opportunities and draw on personal expertise. The report will detail the process of ideation, supporting hypotheses and validation received to date on each of the ideas.

Interview Report

This short report requires students to describe the learnings from the interviews conducted on potential customers and experts. The report will cover the initial hypotheses, who was interviewed, key learnings, confidence in the lead ideas as well as pivots made.

Lead Idea Presentation

This presentation details the lead idea the team will pursue for the second half of the class. Content in this report will stem from in-class activities. Students will present in front of guest mentors for feedback on the lead idea.

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Prototyping Plan

A plan which lays the foundation for how the team will approach prototyping. This plan involves laying out aspects of lean prototyping including topics on outcomes, building & testing.

Final Prototype

Deliver a functional prototype which demonstrates underlying requirements for usability and testability.

Final Presentation

The final presentation for the course which highlights key aspects of the lead idea and captures all the aspects of a business model from taught material in the course. The final presentation will involve guest mentors.

Reflection paper

This paper is designed to have students share their own personal experience throughout this course and is meant to be an insightful paper whereby students can reflect on their own learnings.

LEARNING MATERIALS

Students are not expected to purchase materials for this course. Within Canvas, the instructors have identified key resources that will assist students with the relevant content. The instructors will make it clear where students can seek out free online resources to support the material.

All articles, cases and class notes are posted on the course page on Canvas.

- Syllabus
- Announcements
- All pre-class preparation
- Assignment details and submission
- Class slides
- Grade Information

COURSE-SPECIFIC POLICIES AND RESOURCES

Grading Policies

The course is graded according to the policies for graduate programs at UBC:

<http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,42,96,0>

Re-Assessment

In your reviewing your grade, if you feel that something was overlooked, you may, within one week of the grade being released, submit a professionally worded email in which you request that your Professor re-evaluate the assignment. Explain fully and carefully why you think the assignment should be re-graded. Any requests for a re-evaluation of your work must follow the above process. Note: A grade review may see your mark adjusted either, up or down.

Class Preparation:

All course announcements will be posted to Canvas. This includes guidance on how to prepare for each class, lecture slides, exam preparation materials, marketing plan project resources, and additional

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resources for Tech E. It is each student's responsibility to understand what is required and to complete necessary readings, pre-tests, and other preparation that is directed.

Professionalism:

Because of the high coordination cost of many of the in-class activities, all students are asked to act professionally by informing the professors as early as possible about absence, with or without concession.

Missed or late assignments, and regrading of assessments

Late submissions will not be accepted and will receive a grade of zero.

Academic Concessions

The policy on academic concessions is contained in Senate [Policy V-135](#). In the event of valid academic concession, students will work with the instructors to determine the make-up activities. If you experience unanticipated events or other circumstances that constitute valid grounds for academic concession as defined by [UBC's Academic Concession Policy](#).

Sauder Students: If extenuating circumstances arise, please contact the RHL Graduate School program office as early as reasonably possible, and submit an [Academic Concession Request & Declaration Form](#). If an academic concession is granted during the course, the student will be provided options by RHL, or by the instructor in consultation with RHL, per policy.

APSC Students: request academic concession through the Engineering Academic Services at [Academic Concession Request & Declaration Form](#)

Other Course Policies and Resources

Groups

The course follows a group-learning format where students self-form groups. Students will stay with these groups for the duration of the academic term and as such, each team will sign, submit and adhere to a team agreement that articulates members' mutual expectations. If there are any problems in the group (e.g., free-riders, group members being chronically late, etc.) the group members are expected to try to resolve the issue themselves and if the problem is not sufficiently resolved, only then should the group make one of the instructors aware of the issue. Instructors will support groups with one resolution meeting. Beyond this, groups who would like additional support are encouraged to seek additional resources through UBC's [Office of the Ombudsperson](#).

Code Plagiarism

Code plagiarism falls under the UBC policy for [Academic Misconduct](#). Students must correctly cite any code that has been authored by someone else or by the student themselves for other assignments. Cases of "reuse" may include, but are not limited to:

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- the reproduction (copying and pasting) of code with none or minimal reformatting (e.g., changing the name of the variables)
- the translation of an algorithm or a script from a language to another
- the generation of code by automatic code-generations software

An “adequate acknowledgement” requires a detailed identification of the (parts of the) code reused and a full citation of the original source code that has been reused.

Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

POLICIES APPLICABLE TO COURSES IN THE ROBERT H. LEE GRADUATE SCHOOL

Attendance

Excepting extenuating circumstances, students are expected to attend 100% of their scheduled class hours. Absent students limit their own academic potential, and that of their classmates, and cause unnecessary disruption to the learning environment. Students missing more than 20% of the total scheduled class hours for a course (including classes held during the add/drop period) without having received an academic concession will be withdrawn from that course. Withdrawals, depending on timing, could result in a “W” or an “F” standing on the transcript.

Punctuality

Students are expected to arrive for classes and activities on time and fully prepared to engage. Late arrivals may be refused entry at the discretion of the instructor or activity lead. Students arriving later than 30 minutes through a scheduled class will be treated as absent for that class.

Electronic Devices

Devices such as laptops, tablets, and cell phones are not permitted to be used in class unless directed by the instructor for in-class activities. Students who do not follow the School’s policy in this regard may be required to leave the room for the remainder of the class, so that they do not distract others. Research shows that students’ use of laptops in class has negative implications for the learning environment, including reducing their own grades and the grades of those sitting around them.

Citation Style

Please use the American Psychological Association (APA) reference style to cite your sources.

Details of the above policies and other RHL Policies are available at:

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,199,506,1625>

UNIVERSITY POLICIES AND RESOURCES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances.

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UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website at <https://senate.ubc.ca/policies-resources-support-student-success>.

Respect for Equity, Diversity, and Inclusion

The UBC Sauder School of Business strives to promote an intellectual community that is enhanced by diversity along various dimensions including Indigeneity (including identification as First Nation, Métis, or Inuit), race, ethnicity, gender identity, sexual orientation, religion, political beliefs, social class, and/or disability. It is critical that students from diverse backgrounds and perspectives be valued in and well-served by their courses. Furthermore, the diversity that students bring to the classroom should be viewed as a resource, benefit, and source of strength for your learning experience. It is expected that all students and members of our community conduct themselves with empathy and respect for others.

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

Use of Artificial Intelligence

For this course, students may use generative artificial intelligence (AI), including ChatGPT, for specific assessments or coursework, where it is expressly specified by the instructor. In these cases of permitted use, students must disclose any use of AI-generated material as per the assessment guidelines. This will include proper attribution, including in-text citations, quotations and references. Please see your assessment guidelines for full details.

COPYRIGHT

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline and could be subject to legal action. Any lecture recordings are for the sole use of the instructor and students enrolled in the class. In

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no case may the lecture recording or part of the recording be used by students for any other purpose, either personal or commercial. Further, audio or video recording of classes are not permitted without the prior consent of the instructor.

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the $x̣ẉṃə̣θ̣ḳʷ̣ə̣ỵəm$ (Musqueam) people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

COURSE SCHEDULE

Class	Date	Topic	Readings or Activities	Assessments due
1	Jan 7	Group Formation, Ideation, BMC & Lean Methodology	See Canvas	
2	Jan 14	Hypotheses, Customer Jobs, Primary & Secondary Market Research		Three Lead Ideas (10%)
3	Jan 21	Day In The Life, Value Propositions & MVP	Team Updates	
4	Jan 28	Personas, Market Sizing & Competitive Analysis	Team Updates	
5	Feb 4	Customer Buying Process & Prototyping	Team Updates	Interview Report (10%)
6	Feb 11	Lead Idea Presentation		Lead Idea Presentation (20%)
	Feb 18 - Mar 4	<i>Break (no class)</i>	LAB - Tech	
7	Mar 11	Channel Economics & Milestones	Team Updates	Prototyping Plan (10%) Reflection Paper (10%)
8	Mar 18	GTM & IP	Team Updates	
9	Mar 25	Revenues & Costs	Team Updates	
10	Mar 31	Demo Day		Prototype (10%) Technical Report (10%)

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11	Apr 8	Raising Money, Investors	Team Updates	
12	Apr 15	Final Presentations		Final Presentation (20%)

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