

### COURSE INFORMATION

Course title:	Technology Entrepreneurship		
Course code:	BAEN506/APSC541	Credits:	3
Session, term, period:	2021W	Class location:	DL009/005 or as noted on Canvas
Section(s):	003, 004	Class times:	Nov18, 25, Dec 2: Thursdays, 6:00-9:30pm Jan-Apr, 2022: Wednesdays 6:00pm-9:30pm
Course duration:	Nov 18, 25, Dec 2 & Jan – Apr 2022		
Division:	Marketing and Behavioural Sciences / APSC	Pre-requisites	Enrollment in a UBC graduate program and by application

### INSTRUCTOR INFORMATION

Instructor:	<a href="#">David J. Miller</a>	Office hours:	See Canvas for details
Phone:	778-991-6602	Office location:	HA562
Email:	<a href="mailto:djmiller@sauder.ubc.ca">djmiller@sauder.ubc.ca</a>		

Instructor:	<a href="#">Alex Feldman</a>	Office hours:	By Appointment
Phone:	604-537-2154		
Email:	<a href="mailto:alex.feldman@ubc.ca">alex.feldman@ubc.ca</a>		

Instructor:	<a href="#">Fraser Pogue</a>	Office hours:	By Appointment
Phone:	250-863-0201		
Email:	<a href="mailto:fraser.pogue@sauder.ubc.ca">fraser.pogue@sauder.ubc.ca</a>		

Teaching assistant:	TBD
Office hours:	TBD
Email:	TBD

### 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-minded student 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. Student 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 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 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.

## LEARNING OBJECTIVES

Students will learn:

1. The essential component of planning a new start-up, including:
  - a. Recognizing viable market opportunities
  - b. Market assessment via secondary market research and customer discovery via primary market research
  - c. Creating a profitable business model and an executable business plan
  - d. Protecting the intellectual property at the heart of their technology company
  - e. 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.

## COURSE STRUCTURE

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 10-15 hours per week to sufficiently prepare for classes and external presentations.

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 business 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 re-visited 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.

## 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%
Participation	<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 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.

### 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.

### Participation

Your individual participation is necessary in the course. Students will be expected to participate in discussions and activities in the classroom environment as well as the digital and online environment. Students are expected to attend all classes. Missing more than two classes can result in being withdrawn from the class.

### iPeer

iPeer provides the opportunity for students to confidentially raise concerns about their teammates (only the Professors can read what is written in iPeer). Students will complete a peer evaluation of each group member's contribution (including their own). Individual grades may be subject to adjustment following the Professors' review of peer evaluations. Reductions can be significant, ranging from a decrease of 10% to a decrease of 100% if an individual has contributed little or nothing to the team's work. In most instances, where team members are reliable and contribute, no adjustments are made.

**Failure to complete an evaluation will result in a loss of up to 2% per iPeer from the student's participation grade (aka – 8/10 becomes 6/10).**

### LEARNING MATERIALS

Students are not expected to purchase materials for this course. The following books are highly recommended as support tools and it is suggested that each group own a copy amongst them. Students should seek out free online resources supporting the following material:

- Blank, S and Dorf, B (2012). *The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company*, K&S Ranch Press: This is a good value buy. It may be available in the UBC bookstore, but is not specifically ordered for this course, in part because many students have preferred a digital copy with instant access. Please obtain directly, before the course. You can read the first few chapters by way of preparation. You may also review the slides posted on [steveblank.com](http://steveblank.com) and the videos in the related [Udacity course](#) (free access with free sign-up).

- Osterwalder, A, and Pigneur, Y (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*, Wiley: Many business students will have seen this. It is also in the Sauder Lam library. We will cross-reference this extensively. There are also free resources online. You can download the first 72 pages for free, and should familiarize yourself with this if it is new to you.
- Osterwalder, A and Pigneur, A (2014). *Value Proposition Design*, Wiley: Osterwalder's latest book drills deep on the challenging but critical fit between customer segments and value propositions. We will use a number of tools from this text. Some free information [here](#).
- Fitzpatrick, R ((2014). *The Mom Test: How to talk to customers & learn if your business is a good idea when everyone is lying to you*, Founder Centric.
- Further optional readings: more may be added to the course blog, but these will get you started.
  - Mullins, J (2010). *The New Business Road Test*, Prentice Hall. Read Chapter 1: [My opportunity: why will or won't this work?](#) p. 1-23.
  - Kawasaki, G (2004). *The Art of the Start: The Time Tested, Battle-Hardened Guide for Anyone Starting Anything*, Portfolio: ...or any posts by Guy Kawasaki, and then check out: [The Garage](#).
  - Wasserman, N (2012). *The Founder's Dilemmas*, Princeton.

## 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.

### Missed or late assignments, and regrading of assessments

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

### Academic Concessions

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](#) <https://webforms.sauder.ubc.ca/academic-concession-rhlee>. 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 [UBC's policy on Academic Concession](#).

## 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.

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#### *COVID-19 Policies for Attendance & Academic Concessions:*

If a student feels unwell, they should stay home and send a courtesy email to each impacted instructor and cc their program manager. The student should also submit an [Academic Concession Request & Declaration Form](#).

If a student suspects possible COVID-19 infection, they should use the BC Ministry of Health’s [self-assessment tool](#), to help determine whether further assessment or testing for COVID-19 is recommended.

If a student is required to self-isolate (e.g., while waiting for test results), they should follow the steps above (stay home, email instructor(s) and program manager, submit an [Academic Concession Request & Declaration Form](#), and follow BC Health Guidance.

Students who are required to quarantine, should get in touch with their Program Manager to discuss the possibility of academic concessions for each impacted course. The Program Manager will work closely with your instructors to explore options for you to make up the missed learning.

#### *COVID-19 Safety in the Classroom:*

**Masks:** Masks are **required** for all indoor classes, as per the BC Public Health Officer orders. For our in-person meetings in this class, it is important that all of us feel as comfortable as possible engaging in class activities while sharing an indoor space. For the purposes of this order, the term “masks” refers to medical and non-medical masks that cover our noses and mouths. Masks are a primary tool to make it harder for COVID-19 to find a new host. You will need to wear a medical or non-medical mask for the duration of our class meetings, for your own protection, and the safety and comfort of everyone else in the class. You may be asked to remove your mask briefly for an ID check for an exam, but otherwise, your mask should cover your nose and mouth. Please do not eat in class. If you need to drink water/coffee/tea/etc, please keep your mask on between sips. Students who need special accommodation are asked to discuss this with the program office.

**Seating in class:** To reduce the risk of COVID-19 transmission, please sit in a consistent area of the classroom each day. This will minimize your contacts and will still allow for the pedagogical methods planned for this class to help your learning.

Visit the following website for the most recent updates regarding COVID-19 protocol on campus:  
<https://students.ubc.ca/campus-life/returning-to-campus>

### *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 halfway 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. 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 status as a First Nation, Metis, Inuit, or Indigenous person, 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.

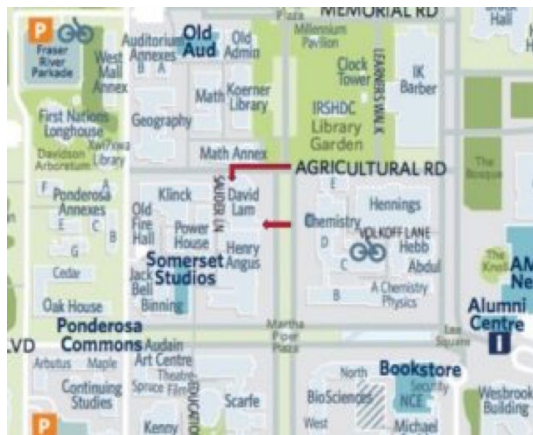
### COPYRIGHT

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 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. Students may not share class Zoom links or invite others who are not registered to view sessions.

### ACKNOWLEDGEMENT

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

### DIRECTIONS TO THE CLASSROOM



**Technology Entrepreneurship** is taught in the *David Lam Learning Labs* located in the basement of the *Sauder Building*, below Tim Hortons and WhiteSpot. While the Labs are in the Sauder compound, access cannot be gained from the main building. To access the learning labs, enter the Robert H Lee Graduate School doors to the left of the restaurants (not the main Sauder entrances) and take the stairs or the elevator down to the basement. Alternatively, you can walk around the back of the building past WhiteSpot (West on Agricultural Road) and take the first pathway at the back of the building down into the learning labs (see map).

<Course schedule – see next page>



**COURSE SCHEDULE**

(Subject to change with class consultation)

Class	Date	Topic	Readings or Activities	Assessments due
Prep 1	Nov 18	Idea Generation	Ideation	
Prep 2	Nov 25	Team Building	Individual Ideas, Mixer	
Prep 3	Dec 2	Hypotheses & Discovery	Team Formation	
Class 1	Jan 5	Lead Ideas Presentation	DITL	Ideation Report
Class 2	Jan 12	Customer	VP Canvas, MVP	
Class 3	Jan 19	Market Opportunity	Archetype, Market Sizing	
Class 4	Jan 26	Channels	Buying Process, Channels	Interview Report
Class 5	Feb 2	Prototyping	Prototyping & Design	
Class 6	Feb 9	Lead Idea Presentation		Lead Idea Report
Class 7	Mar 9	GTM	Get, Keep, Grow	Prototyping Plan
Class 8	Mar 16	Revenues & Costs	Pricing, Resources, Costs	
Class 9	Mar 23	Milestones & Financing	Financial Modelling	
Class 10	Mar 30	Investors	Plan to Raise	
Class 11	Apr 6	Demo Day		Final Prototype
Class 12	Apr 13	Final Presentation		Final Report