

Course Syllabus

CP601A: Seminar in Technology Entrepreneurship
Department of Physics and Computer Science, Faculty of Science, Waterloo Campus
Winter Semester | 2021

I acknowledge that in Kitchener, Waterloo, Cambridge, and Brantford we are on the traditional territory of the Neutral, Anishnawbe, and Haudenosaunee peoples.

Instructor Information

Oleg Stukalov

Contact: ostukalov@wlu.ca

Office Hours: To be agreed upon in the beginning of the course, depending on students preferences

Course Information

- Course starts January 11, 2021 and ends on April 11, 2021 (NOTE : Reading Week - February 16-19, 2021, no classes)
- Remote, hybrid model of course delivery (elements of synchronous and asynchronous)
- Three weekly activities:
 - o Pre-recorded lecture accompanied by graded participation in an online discussions forum
 - o Online meeting with breakout rooms (length 1 hour, days and times to be mutually agreed upon)
 - o Graded group assignments. NOTE: Some weeks have no assignments due, and some have quizzes instead

Course Overview and Approach

We are living in times of unprecedented advancement of technology. A significant contribution to this explosive growth is coming from the companies that were just a group of students a few years ago, and now their ideas have grown to become multimillion international businesses. These successes could not have happened if the students did not have access to educational resources and vast support. The Region of Waterloo is called Northern Silicon Valley for a reason, and you will find out why during this course through exposure to the local entrepreneurial ecosystem.

It's true that most technology businesses fail (in our case, we mean companies that offer technical products and services that did not exist before), but equipped with this course material and services that exist in our region, your chances to succeed will be significantly higher.

All other classes in your program cover modern topics of computer science and computer engineering, except for this course. Entrepreneurship used to be considered an art, that one needs to have an exceptional talent for it, and therefore it can't be taught. Not anymore! Prominent businessmen like Steve Blank, Eric Ries, Bill Aulet (author of the textbook for this course), to name just a few, demonstrated that one could bring an element of science in entrepreneurship. Entrepreneurship can be taught!

This course is slightly different when compared to many around, as it is focused more on designing a winning product that will stick with people and less so on building an actual company. Of course, a successful company is more than a fantastic product – it requires a team, financing and leadership. In this course, we do not anticipate that you will create an actual company. We do not even expect that you already have a product idea at the start (but will celebrate if you do!). We will start by working in and outside of the class to generate a

few ideas, which you will then choose to become your “product” or “service” (otherwise called your project). You will then work together in groups of 4-5 students to generate the core elements of a business plan via assignments.

This remote version of the course consists of 12 weekly series, each of which has 3 elements: pre-recorded lectures accompanied by an online discussion forum, weekly 1-hour meetings with breakout rooms, and group assignments. There will be two quizzes (check Table below for preliminary dates). Before or after watching pre-recorded lectures, you are strongly recommended to read relevant chapters in the course textbook.

I am very excited to have an opportunity to teach this course to you for a reason. When I was a university student in my last years of study over two decades ago, entrepreneurship courses did not exist. Without any even basic business knowledge, I created a technology company with a classmate. We managed to become surprisingly successful within a short period of time, but we also quickly (and miserably) failed. Looking back, the lack of proper business planning was the culprit. If only I had a chance to attend an entrepreneurship course like this!

Course Goals and Learning Outcomes

The main goals of this course are:

- Help students develop entrepreneurial mindset – a state of mind when one thinks about everyday life in terms of opportunities for innovation and value creation
- To equip students with the tools of startup business analysis
- Teach students steps necessary to shape a product idea into a business opportunity

By the end of this course students should be able to:

- Identify and isolate technological business opportunities that could facilitate prosperity in individuals, firms, regions, and nations
- Develop a viable business plan utilizing a framework introduced in the course
- Apply design thinking to create a Minimal Viable Product.
- An understanding of financial terminology related to startup financing
- Develop a business presentation skills

Course Tools and Learning Materials

Textbook: **Disciplined Entrepreneurship: 24 Steps to a Successful Startup**, by Bill Aulet, Wiley, 2013
The hardcopy of the textbook is available for purchase via Laurier’s BookStore

A website for the course will be created through MyLearningSpace learning management system employed at Laurier.

Student Evaluation

Assessment	Weighting (PRELIMINARY)	Due Date (PRELIMINARY)
Attendance and Participation	10%	Online Class Meeting Date
Online forum participation	20%	Weekly
Assignments	30%	Sundays, bi-weekly
Quizzes	20%	Completed during weekly class
Final Presentation	20%	Last day of class
Total	100%	

Learning Activities, Assignments, Tests, Quizzes and Examinations

Another vital aspect of your learning experience is your engagement in the online classroom meetings. As such, attendance is important, but we will also have flexibility. Other elements of the learning processes are quizzes and relatively simple but thoughtful assignments. Online quizzes are used to solidify your understanding of some unfamiliar business terminology and core points expressed in the lectures. Assignments must be completed by the due dates before the working group can proceed to the next one, especially because assignments are interconnected and provide input data for each other. Each assignment has two parts. The first component is peer evaluation where each group member will grade level of contribution of their groupmates towards the group assignment. This will provide motivation for everyone to make their input. Instructions for how to evaluate your classmates will be provided. The second part is completed collectively by the group members, and each group member receives identical grade. The grade for each assignment is a combination of two parts. Another element of evaluation is your participation in online forums. Each week, together with the release of a next pre-recorded lecture, an article about certain startup company, or state of some market segment, will be proposed for individual reading. You will be then expected to do a short forum post. The course will culminate with presentations – each of you will be asked to record a video presentation and submit it for grading.

Physics and Computer Science Department Regulations and Policies:

<http://bohr.wlu.ca/courses/regulations.php>

Course Policies

Classroom Use of Electronic Devices: Phones must be in silent mode all the time during the online meetings. Personal computing devices can only be used for learning purposes. Failure to comply will result in a reduced grade for class participation. See general Laurier policies – see [Policy 9.3](#) (Approved by Senate March 8, 2012).

Late Assignment Policy: All course assignments are due by the time identified at the beginning of the course. Late deadline will be offered, but you get 20% lower mark due to late submission.

Communication with the instructor: Online office hours will be identified at the beginning of the course. Students are welcomed to reach out to the instructor via email on significant issues affecting their performance. Please, note that the instructor might not be able to answer emails in a timely fashion. Key announcements related to the course material will be provided via MyLearningSpace on the news page and also shared among course participants via email.

Weekly Schedule of Seminars (preliminary, subject to change)

Week # and Date	Topic, Theme or Unit of Study	Lesson Outcomes	Learning Activities (All times are Eastern Time)
Week 1, Jan 11-17	Introduction	Understand the course flow and expectations	Suggested Readings: -Step 0 of the textbook - “Why The Lean Start-up Changes Everything”, Harvard Business Review, 2013 (available online) Choosing Your Product Idea. Not graded.
Week 2, Jan 18-24	High Level Market Analysis	Segment your market and choose where to focus	Suggested Readings – Step 1, 2 and 3 Assignment 1, due by Sunday, January 24, 6 am
Week 3, Jan 25-31	Market Size and the Persona	Estimate market size and identify early customers	Suggested Readings – Step 4, 5 and 9
Week 4, Feb 1-7	Product and Its Value	Formulate how your product will look like and how valuable it is	Suggested Readings - Step 6, 7 and 8 Assignment 2, due by Sunday, February 7, 6 am
Week 5, Feb 8-14	Your Position Against Competition	Characterize your competitiveness	Suggested Readings - Step 10, 11, and 14
Week 6, Feb 15-21	Product Acquisition	Devise a plan for selling your product to customers	Suggested Readings - Step 12 and 13 Assignment 3, due by Sunday, February 21, 6 am
Week 7, Feb 22-28	NO CLASS READING WEEK		
Week 8, March 1-7	Business Model Generation	Develop strategy for how much, how often and who will be paying you for your product	Suggested Readings – Step 15 and 16 Assignment 4, due by Sunday, March 7, 6 am
Week 9, March 8-14	Customer Lifetime Value	Calculate your customer’s value to the business	Suggested Readings - Step 17 Quiz 1 (Individual).
Week 10, March 15-21	Customer Enrollment	Devise a plan for enrolling new customers	Suggested Readings - Step 18 and 19 Assignment 5, due by Sunday, March 21, 6 am
Week 11, March 22-28	Key Assumptions	Identify and verify key assumptions	Suggested Readings - 20 and 21. Quiz 2 (Individual).
Week 12, March 29- April 4	Minimum Viable Product	Conceptualize minimum set of features and devise long term development plan.	Suggested Readings – Step 22, 23 and 24 Assignment 6, due by Sunday, April 4, 6 am. Preparations for final presentations.
Week 13, April 5-11	Final Presentations. Entrepreneurial Finance.	Bonus Material (not graded): Understand how startup companies are financed	Suggested Readings – “How Startup Funding Works – Infographic”, adioma.com
Week 14 April 12-18	<i>Instructor will consult with students regarding the possibility of using this week as flexible week in the unlikely situation the course delivery may be interrupted. April 30 is the last day of Winter term.</i>		

DISCLAIMERS

Syllabus Statement on Intellectual Property:

The educational materials developed for this course, including, but not limited to, lecture notes and slides, handout materials, examinations and assignments, and any materials posted to MyLearningSpace, are the intellectual property of the course instructor. These materials have been developed for student use only and they are not intended for wider dissemination and/or communication outside of a given course. Posting or providing unauthorized audio, video, or textual material of lecture content to third-party websites violates an instructor's intellectual property rights, and the Canadian Copyright Act. Recording lectures in any way is prohibited in this course unless specific permission has been granted by the instructor. Failure to follow these instructions may be in contravention of the university's Student Non-Academic Code of Conduct and/or Code of Academic Conduct, and will result in appropriate penalties. Participation in this course constitutes an agreement by all parties to abide by the relevant University Policies, and to respect the intellectual property of others during and after their association with Wilfrid Laurier University.

Syllabus Statement about Recording Synchronous Classes:

Synchronous (live) class sessions will be delivered in this course through a video conferencing platform supported by the university [Zoom, Teams, Virtual Classroom]. Steps have been taken to protect the security of the information shared. For more information about Zoom and Office365 (including Teams), please visit ICT's Tech Support and Services page. Class sessions will be recorded with the video and audio (and in some cases transcription) made available to students in the course in MyLearningSpace for the duration of the term. The recordings may capture your name, image or voice through the video and audio recordings. By attending in these live classes, you are consenting to the collection of this information for the purposes of administering the class and associated course work. If you are concerned about the use or collection of your name and other personal information in the class, please contact the course instructor to identify possible alternatives. To learn more about how your personal information is collected, used and disclosed by the University, please see Laurier's Notice of Collection, Use and Disclosure of Personal Information.