

Course Syllabus

CP601A: Seminar in Technology Entrepreneurship
Department of Physics and Computer Science, Faculty of Science, Waterloo Campus
Winter Semester | 2020

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: Wednesdays, 6-7 pm, room #N2079

Course Information

Every Thursday, starting January 9th and ending April 2nd, 2019 (NOTE : February 20, 2019 no classes, Reading Week)

Room# BA429 (subject to change), 6-8.50 pm

Course Overview and Approach

We are living in the times of unprecedented advancement of the technology. A significant contribution to this innovation is coming from the companies that were just a group of students few years ago, and now their ideas have grown to become multimillion international businesses. These successes could not have happened if the students didn't 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 the exposure to local entrepreneurial eco-system.

It's true that most businesses (in our case we mean businesses technological products and services that didn't exist before) fail, but equipped with the 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 a special 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 the building an actual company. Of course the successful company is more than a great product – it requires a team, financing and a leadership. In this course, we do not anticipate that you will create an actual company. We do not even anticipate 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 few ideas, which you will then choose to become your "product" or

“service” (otherwise called your project). You will then work together in smaller groups to generate the core elements of a business model.

The course consists of series of nearly 3-hour long seminars. Seminar topics align with a typical process that one needs to take in developing a product idea into a business model. The typical seminar will consist of three elements: an interactive discussion on the particular topic or topics, group break outs, and, for some classes, students will be able interact with local entrepreneurs and business professionals. There will be two quizzes completed during the class. Before each of the seminars, you will be recommended to read relevant chapters in the course textbook (optional, see Suggested Readings) and submit assignments on the topic, and... than...have fun discussing all that in the classroom!

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 didn't exist. Without any even basic business knowledge, I created a technology company with a classmate and a professor as co-founders. We managed to become surprisingly successful within a short period of time, but we also quickly (and miserably) failed. Looking back, lack of proper business planning was the culprit. If only I had a chance to attend entrepreneurship course like this!

Course Goals and Learning Outcomes

The main goals of this course are:

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

It is a project-centered course. We together will generate a business idea and, working in groups of 2-3 people, apply concepts learned in class towards development of core elements of a Business Plan, which are:... Come to the class to learn!

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

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

Course Tools and Learning Materials

Textbook (optional): **Disciplined Entrepreneurship: 24 Steps to a Successful Startup**, by Bill Aulet, Wiley, 2013

The hardcopy of the textbook is available for purchase at the BookStore

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

Student Evaluation

Assessment	Weighting (PRELIMINARY)	Due Date
Attendance and Participation	20%	Class Date
Assignments	30%	Thursday each week, 6 pm
Quizzes	25%	Completed in class
Final Presentation	25%	Last day of class
Total	100%	

Learning Activities, Assignments, Tests, Quizzes and Examinations

Another vital aspect of your learning experience (and your grade!) is your engagement in the classroom discussion and participation in the activities. As such, attendance is very important. Other elements of the learning (and grading!) 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 classroom activity. Assignments must be completed before each seminar, especially because assignments are interconnected and provide input data for each other. Each assignment has two parts. First part is completed collectively by the group members, and each group member receives identical grade. The second component is individual short essay written up by each student independently. The topic and proposed reading materials for individual essays will be provided. Both portions of the assignment have equal contribution towards the total grade (15% each).

Weekly Schedule of Seminars (preliminary, subject to change)

Week # and Date	Topic, Theme or Unit of Study	Lesson Outcomes	Learning Activities
Week 1, Jan 9	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. Due on Jan 16, 11:59 pm.
Week 2, Jan 16	High Level Market Analysis	Segment your market and choose where to focus	Suggested Readings – Step 1, 2 and 3 of the textbook Assignment 1 (Group). Due on Jan 24, 8 am
Week 3, Jan 23	Market Size and the Persona	Estimate market size and identify early customers	Suggested Readings – Step 4, 5 and 9 of the textbook Assignment 2 (Group). Due on Jan 31, 8 am

Week # and Date	Topic, Theme or Unit of Study	Lesson Outcomes	Learning Activities
Week 4, Jan 30	Product and Its Value	Formulate how your product will look like and how valuable it is	Suggested Readings - Step 6, 7 and 8 of the textbook Assignment 3 (Group). Due on Feb 7, 8 am
Week 5, Feb 6	Your Position Against Competition	Characterize your competitiveness	Suggested Readings - Step 10, 11, and 14 of the textbook Assignment 4 (Group). Due on Feb 14, 8 am
Week 6, Feb 13	Product Acquisition	Devise a plan for selling your product to customers	Suggested Readings - Step 12 and 13 of the textbook Assignment 5 (Group). Due on Feb 21, 8 am
Week 7, Feb 20	NO CLASS READING WEEK		<i>Instructor will consult with students regarding the possibility of using this week as flexible week</i>
Week 8, Feb 27	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 of the textbook Assignment 6 (Group). Due on March 7, 8 am
Week 9, March 7	Customer Lifetime Value	Calculate your customer’s value to the business	Suggested Readings - Step 17 of the textbook Quiz 1 (Individual). Completed in class. Assignment 7 (Group). Due on March 14, 8 am
Week 10, March 12	Customer Enrollment	Devise a plan for enrolling new customers	Suggested Readings - Step 18 and 19 Assignment 8 (Group). Due on March 21, 8 am
Week 11, March 19	Key Assumptions	Identify and verify key assumptions that are critical to success of your product	Suggested Readings - 20 and 21. Quiz 2. Completed in class. Assignment 9 (Group). Due on March 28, 8 am
Week 12, March 26	Minimum Viable Product	Conceptualize minimum set of features and devise long term development plan.	Suggested Readings – Step 22, 23 and 24 Assignment 10 (Group). Due on April 4, 8 am Preparation for Final Presentation.
Week 13, April 2	Entrepreneurial Finance. Final Presentations.	Understand how Startup Companies are Financed	Suggested Readings – “How Startup Funding Works – Infographic”, adioma.com

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, use of phones is not permitted during the class. There will be frequent breaks when the phones can be checked. Students can choose to take hand-written (copies of slides will be provided) or electronic notes using personal computing devices. Personal computing devices can only be used for learning purposes. Failure to comply will result in 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 6 pm of the Thursday each week (except Reading Week). Late deadline is noon (12 pm) on Fridays, but you get 20% lower mark due to late submission.

Communication with the instructor: Office hours are each Wednesday, 6-7 pm. Students are welcomed to reach out to the instructor via email. Please, note that instructor might not be able to answer emails in timely fashion. Electronic communications will be provided via MyLearningSpace discussion room and thus will be shared among class participants.