

Lean Lab:

Spring 2019 Cohort

Instructors: Jason Lau & Murat Tortopoğlu

Dates:

Kick-Off Workshop	Feb. 7	9:00 – 21:00
	Feb. 8	9:00 – 19:00
	Feb. 9	9:00 – 12:30
Weekly Meetups	Feb. 13	18:00 – 21:00
	Feb. 20	18:00 – 21:00
	Feb. 27	18:00 – 21:00
	Mar. 6	18:00 – 21:00
	Mar. 13	18:00 – 21:00
Closing Workshop	Mar. 20	9:00 – 17:00
	Mar. 21	9:00 – 14:00

Required Texts:

The Startup Owner's Manual, Steve Blank and Bob Dorf

Business Model Generation, Alexander Osterwalder and Yves Pigneur

Recommended Texts:

Value Proposition Design, Greg Bernard, Yves Pigneur, Alexander Osterwalder and Alan Smith

Talking to Humans, Giff Constable and Frank Rimalovski

This course requires in-depth preparation and significant effort outside of the lab.

Pre-class Assignments (to be completed on or before Feb. 7)

1-Minute Technical Video

We would like you to produce a short, technically focused video appropriate for a technically educated audience. This assignment challenges you to use what you have learned to concisely describe the technical aspects of your project with the value proposition and customer archetype in mind. The ability to do this effectively will be critical when making future pitches.

Consider the audience for this video to be people who are technically well versed enough to understand your project, your process, your lab, your equipment, and your approach at a general level; perhaps like someone you might meet at a technical conference focused on your general area of expertise. This video is a great place to include hero shots of your testing apparatus, your lab filled with bubbling chemistry experiments, or awesome computer graphics simulations of your experiments running on the International Space Station in zero gravity.

You must upload your Technical video to the course Dropbox folder by Noon ET on Feb. 6.

Pre-Reading and Videos

- Read pages 14–51 [loc. 268-842] of **Business Model Generation**; Definition of a Business Model
- Read pages 22–84 [19-83] and 195-199 [189-199] of **The Startup Owner’s Manual**; The Customer Development Model; Prepare for Customer Contacts
- Giff Constable, “**12 Tips for Early Customer Development Interviews**”
<http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews>
- Go to Udacity and sign up for the “**How to Build a Startup**” Course (*free*)
<https://classroom.udacity.com/courses/ep245>. Watch Lessons 3 & 4.
- See also <https://steveblank.com/category/lean-launchpad> for background and blog posts on the Lean LaunchPad method and classes.

Pre-Class Assignments

Come prepared for the 1st day of class with:

1. **A 2-slide presentation** to present your Team to the class (3 minutes). See below for the template.
 - **Slide 1:** Team name, Team number, Product picture/product description (one sentence), Pictures/names of your Team members.
 - **Slide 2:** Populated Business Model Canvas

You must upload your presentation to the course Dropbox folder by 8:00 on Feb. 7th. All presentations should be in PDF format (See email from your TA)

2. **A list of 10-15 customer/industry contacts**, people who are potential customers or players in the supply chain.
3. Additionally, try to **set up several face-to-face meetings** with these contacts in advance for the “Get out of the Building” sessions, afternoons of Feb. 7 & 8, during the kick-off workshop (see enclosed schedule).

Slide 1: Title Slide

- Team name
- Team number
- Product picture / product description
- Pictures / names of your Team members

Organ-on-a-Chip
Where Technology meets Biology



OrganOnChip.com

A multi-channel 3-D microfluidic chip that simulates the activities, mechanics and physiological response of entire organs and organ systems.

Team 547



Richard C. Callaway, PI



Judy G. Aguilar, EL



Bikatu Barsukov, M

Slide 2: Populated Business Model Canvas

TEAM NAME HERE **FILL OUT ALL 9 BOXES OF THE CANVAS IN ORDER 1 THUR 9**

<p>Key Partners </p> <p style="font-size: 2em; text-align: center;">7</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>Who are our Key Partners?</p> </div>	<p>Key Activities </p> <p style="font-size: 2em; text-align: center;">5</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>What Key Activities do our Value Propositions require?</p> </div>	<p>Value Propositions </p> <p style="font-size: 2em; text-align: center;">1</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>Which one of our customer's <i>problems</i> are we helping to solve? or Which customer <i>needs</i> are we satisfying?</p> <p>What is the specific product/service?</p> <p>What are the <i>features</i> that match customer needs?</p> </div>	<p>Customer Relationships </p> <p style="font-size: 2em; text-align: center;">4</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>How will we Get, Keep and Grow customers?</p> </div>	<p>Customer Segments </p> <p style="font-size: 2em; text-align: center;">2</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>For who are we solving a problem or fulfilling a need?</p> <p>Who are the customers?</p> <p>Does the value proposition match their needs?</p> <p>Is this a single-sided or multi-sided market?</p> </div>
<p>Key Resources </p> <p style="font-size: 2em; text-align: center;">6</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>What Key Resources (suppliers, etc.) do our Value Propositions require?</p> </div>	<p>Channels </p> <p style="font-size: 2em; text-align: center;">3</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>Through which Channels do our Customer Segments want to be reached?</p> </div>	<p>Cost Structure </p> <p style="font-size: 2em; text-align: center;">9</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>What are the most important costs in our business model?</p> </div>	<p>Revenue Streams </p> <p style="font-size: 2em; text-align: center;">8</p> <div style="background-color: yellow; height: 100px; display: flex; align-items: center; justify-content: center; padding: 10px;"> <p>What is the revenue model? What are the pricing tactics? For what value are our customers willing to pay?</p> </div>	

3

Course Details

Course Goals

1. Give academic teams an experiential learning opportunity to help determine the commercial readiness of their technology.
2. Enable the Team to develop a clear go/no go decision regarding commercial viability of the effort.
3. Develop a transition plan to move the technology forward to market, if the Team decides to do so.

Course Description

This course will provide teams with real-world, hands-on learning experience with how to successfully transfer knowledge into products and processes that benefit society. The entire Team will engage with industry. You and your Team will learn from talking to customers, partners and competitors, and from encountering the chaos and uncertainty of commercializing innovations and creating ventures.

This course is not about how to write a research paper, business plan or Tübitak grant. It is not an exercise on how smart you are in a lab or a classroom or how well you use the research library. **The end result is not a paper to be published.**

This course is about getting out of the building. It is not about the lectures. You will be spending a significant amount of time in between each of the lectures, outside the building, talking to customers and testing your hypotheses. If you cannot commit the time to talk to customers, the LeanLab program is not for you.

Teams

This is a team-based class. You will work in teams to turn your research and technology idea into a product, service or process that benefits society. You will learn how to use a business model to brainstorm each part of an enterprise and customer development. You will get out of the building to see whether anyone other than you would want/use your product.

Every academic team will be assigned an outside mentor. The mentor is required to meet with their team each week and provide guidance and contacts in developing the business idea.

Class Culture

The startup culture is dramatically different from the university culture most of you are familiar with. Startups communicate much differently than inside a university and lab. The class culture can feel brusque and impersonal, but it is intentionally oriented to simulate the time- and cash-constrained environments in which startups operate. 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.** We hope you can recognize that these comments aren't personal, but part of the process.

We also expect you to question us, challenge our point of view if you disagree, and engage in a real dialogue with the Teaching Team. This approach may seem harsh or abrupt, but it is all part of our wanting you to learn to challenge yourselves quickly and objectively, and to appreciate that as entrepreneurs, you need to learn and evolve faster than you ever imagined possible.

Attendance and Participation

1. All Team members must attend the kick-off workshop, 5 meetups, and final workshop.
2. If you anticipate missing more than one class, we recommend that you reapply to the

LeanLab Program when you can commit the time to the course.

3. **Getting out of the building is what the class is about.** If you cannot commit at least 10 hours a week to talk with customers, don't enroll in the course.

Class Roadmap

Each class is organized around:

1. A lecture on one of the 9 building blocks of a business model as described in Business Model Generation.
1. Team presentations on your "Lessons Learned" from getting out of the building and iterating or pivoting your business model.
2. Mentor sessions to track and log progress made in the Customer Development process.

Deliverables

1. A record of your customer discovery progress to capture the narrative, contact information, learning and insight. This is also how progress is monitored.
2. A weekly, 10-minute presentation on your progress. Your weekly and final slide decks should not contain any proprietary information. They should focus on your business model and customer discovery. You will learn from looking at the presentations from past classes, and future Teams will learn from yours.
3. Minimum Viable Product (MVP): An MVP is a prototype that captures the minimum functionality. The Customer Discovery Process, a central element of the Lean LaunchPad approach to technology commercialization, requires development of an MVP so the Team can clearly communicate the product capability and value proposition. This process also helps focus the Team on what is and is not essential. For physical products, developing an MVP may be challenging and various approaches will be discussed during the first class sessions. For web based services, or other software applications, it is best to having a working demo or even a working site. In either case, the Team should think through what it will cost for product development and for physical products, on a per unit basis. This last point is essential to understand the gross margin profitability and therefore the business viability of the product. This will require thinking through a product bill-of-materials.

Course Overview

Kick-off Workshop

Your entire team should attend the kick-off workshop. During this three-day workshop, your Team will be introduced to the Lean LaunchPad approach, the Teaching Team and your peers. You will learn the business model development and customer development process, and you will get out of the building to meet with customers. You will present what you learn to the class and check your progress with your mentors. During each Team's presentation, the Teaching Team will offer observations and guidance.

5 Weekly Meetups

Five, weekly meetups will be arranged in the evenings. During this 5-week period, your Team is also required to get out of the building and test your business model assumptions, meeting with about 5-10 customer contacts each week (with the objective of conducting at least 50+ total contacts). Check-in regularly with your mentors. Update your first slide each week to include the total number of customers you talked to.

Each meetup will consist of:

- **Team presentations:** Each Team will present a 10-minute weekly progress report to members of the Teaching Team and your peers. This is how we monitor your progress and give you guidance.
- **Topic Discussion:** each week a new topic, a new area in the business model canvas will be introduced and specific steps to validate those blocks will be discussed.

Closing Workshop

Everyone will attend the final workshop on March 20-21. At that event, the Teams will present their lessons learned in their exploration of commercial feasibility to the Teaching Team.

Office Hours

The Teaching Team is available for regular office hours. Your Team is strongly encouraged to make use of this knowledge resource. Meet with Teaching Team members during office hours to receive individualized responses to your questions and comments.

Program Schedule

Kick-Off Workshop

	Feb. 7	Feb. 8	Feb. 9
9:00	Program Introduction	Introduction	Introduction
9:30	Business Model & Customer Development	Team Presentations	Team Presentations
10:00			
10:30	Team Presentations	Value Proposition	Customer Ecosystem
11:00			
11:30			
12:00	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch & Closing</i>
12:30			
13:00	Talking to Customers	Get Out of the Building (scheduled meetings)	
13:30	Get Out of the Building (scheduled meetings)		
14:00			
14:30			
15:00			
15:30	Office Hours	Office Hours	
16:00			
16:30			
17:00	Dinner Reception with Mentors		
17:30			
18:00			
18:30	Dinner Reception with Mentors		
19:00			
19:30			
20:00	Dinner Reception with Mentors		
20:30			

Weekly Meetup

	Feb. 13	Feb. 20	Feb. 27	Mar. 6	Feb. 13
18:00 – 21:30	Team Presentations & Channels	Team Presentations & Sales Funnel	Team Presentations & Revenue Model	Team Presentations & Key Partners	Team Presentations & Key Activities and Cost Structure

Closing Workshop

	Mar. 20	Mar. 21
9:00	Introduction	Introduction
9:30	Presentation & Storytelling	Team Presentations
10:00		
10:30	Office Hours	
11:00		
11:30		
12:00		Closing
12:30	Lunch	Lunch & Networking
13:00	Presentation Workshop	
13:30		
14:00		
14:30		
15:00	Tübitak Presentation Workshop	
15:30		
16:00		
16:30		