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Lean LaunchPad

Evidence-Based Entrepreneurship™ Educators Guide

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Preface

Purpose

The goal of this document is to give you the *theory* of why we created the Lean LaunchPad class and the *practice* of how we have run it. However, it is neither a guide nor a cookbook for a class. As educators, we expect you to adapt the class to your own school and curriculum as appropriate.

Scope

The Lean LaunchPad class was developed primarily from graduate level experience at several of the nation's leading universities. It's been taught both in engineering and business schools, as well as to post-graduate teams under the National Science Foundation program. However, we believe the methodology has broader applicability, and it is being adapted for use in undergraduate programs.

Focus

The focus of the Lean LaunchPad class has primarily been on scalable startups, often tech-based; however, initial indications are that the approach is generalizable and can embrace the challenges faced by small and medium-sized businesses, as well as new ventures in large corporations.

Acknowledgements

The Lean LaunchPad was first taught at Stanford University as part of the Stanford Technology Ventures Program. Hats off to Kathy Eisenhardt and Tom Byers, who gave us the freedom to invent and teach the class.

The class would not have been possible without the two VCs who volunteered their time to teach this Stanford class with me: Jon Feiber of Mohr Davidow Ventures and Ann Miura-Ko of Floodgate. Lisa Forssell taught the "how to present" class and Thomas Haymore was an indefatigable Teaching Assistant. Thanks also to our team of mentors.

At UC Berkeley Haas Business School, Dean Rich Lyons was the Principal Investigator for the NSF Innovation Corps, Toby Stuart and Andre Marquis allowed us to test the class in their department, and Jerry Engel and entrepreneur/angel investor Jim Hornthal joined the teaching team.

This same group also taught the first NSF Innovation Corps classes, joined by John Burke from True Ventures and Oren Jacob of Toytalk. Under the guidance of Jerry Engel, the Faculty Director of the NSF's program, they were joined by teaching teams from University of Michigan, Georgia Tech, University of Maryland, Virginia Tech, GW, City College of New York, Columbia, and NYU. Bhavik Joshi was the TA for both the Berkeley and first NSF classes.

At Columbia, Murray Low and my co-author Bob Dorf taught the first five-day version of the class. At Caltech, thanks to Ken Pickar and Jon Feiber, Andy Sack, and Chuck House.

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1. The Lean Startup Manifesto

For the last decade, we've been teaching students how to write business plans. They were useful: 1) they provided a comprehensive way to help students envision the issues, 2) were a pedagogically simple paradigm, and 3) were what venture capitalists required. Yet time and again we watched as few of those plans survived first contact with customers. It took us some time until we recognized that business plans suffered from a fatal flaw: they assumed startups were just smaller versions of large companies. We now know that they're not.

Before the Lean Startup Method started to take hold, conventional wisdom stated that the first thing a founder must do is create a business plan—a static document that with a series of implicit hypotheses describes the size of an opportunity, the problem to be solved, and the solution that the new venture will provide. Typically it includes a five-year forecast for revenue, profits, and cash flow. A business plan is essentially a research exercise written in isolation at a desk before an entrepreneur has even begun to build a product. The implicit assumption is that it's possible to figure out most of the unknowns of a business in advance, before you raise money and actually execute the idea.

The problem with this process is that it tends to build an increasingly false sense of certainty, in an environment that is fundamentally uncertain. In this conventional model, once an entrepreneur with a convincing business plan obtains money from investors, he or she feels compelled to execute the plan as presented. He or she embarks on developing the product. Developers invest thousands of man-hours to prepare it for launch with little, if any, customer input. Only after the product is built and launched does the product get substantial feedback from customers—when the sales force attempts to sell it. And too often, after months or even years of development, entrepreneurs learn the hard way that customers do not need or want most of the product's features.

After decades of watching thousands of startups follow this standard regimen, we've now learned at least three things:

- As business plans are full of untested assumptions, they rarely survive first contact with customers. As the boxer Mike Tyson once said about his opponents' preflight strategies: "Everybody has a plan until they get punched in the mouth."
- No one, aside from venture capitalists and the former Soviet Union, requires five-year plans to forecast a series of unknowns. These plans are generally fiction, and conceiving them is almost always a waste of time.
- Startups are not smaller versions of large companies. They do not unfold in accordance with master plans. Those that ultimately succeed go quickly from failure to failure, all the while adapting, testing new iterations, and improving their initial ideas as they continually learn from customers.

Existing companies *execute* a business model, startups *search* for one. This distinction is at the heart of the Lean Startup approach. It shapes the lean definition of a startup: **a temporary organization designed to search for a repeatable and scalable business model.**

The Lean Startup: Key Principles

First, rather than engaging in months of planning and research, entrepreneurs accept that all they have on day one is a series of untested hypotheses—basically, good guesses. The foundation of the Lean Startup is *evidence-based entrepreneurship*. Instead of creating an intricate business plan, founders summarize their hypotheses in a framework called a *Business Model Canvas*. Essentially, this is a diagram of how a company will create value for itself and its customers.

Second, Lean Startups use a “get out of the building” approach called *Customer Development* to test their hypotheses and collect evidence about whether they are true or false. They go out and ask potential users, purchasers, and partners for feedback on all elements of the business model, including product features, pricing, distribution channels, and affordable customer acquisition strategies. The emphasis is on nimbleness and speed; new ventures rapidly assemble minimum viable products (MVPs) and immediately elicit customer feedback. Then, using customers’ input to revise their assumptions, Lean Startups start the cycle over again, testing redesigned offerings and making further small adjustments (iterations) or more substantive ones (pivots) to ideas that aren’t working.

Third, Lean Startups practice something called *agile development*, which originated in the software industry. Agile development works hand-in-hand with Customer Development. Unlike typical yearlong product development cycles that presuppose knowledge of customers’ problems and product needs, agile development eliminates wasted time and resources by developing the product iteratively and incrementally. It’s the process by which startups create the minimum viable products they test.

Strategy: Business Model to Operating Plan



The emphasis on *search* for a business model versus *execution* of a plan is at the heart of the Lean LaunchPad curriculum.

When first starting a new venture, the [business model](http://businessmodelalchemist.com/2011/01/methods-for-the-business-model-generation-how-bmgen-and-custdev-fit-perfectly.html) is *unknown*.¹ It is a set of untested hypotheses. Startup teams’ key task is to test hypotheses, *searching* to verify the business model components; e.g., Customer Segments, Value Proposition, product features, channels,

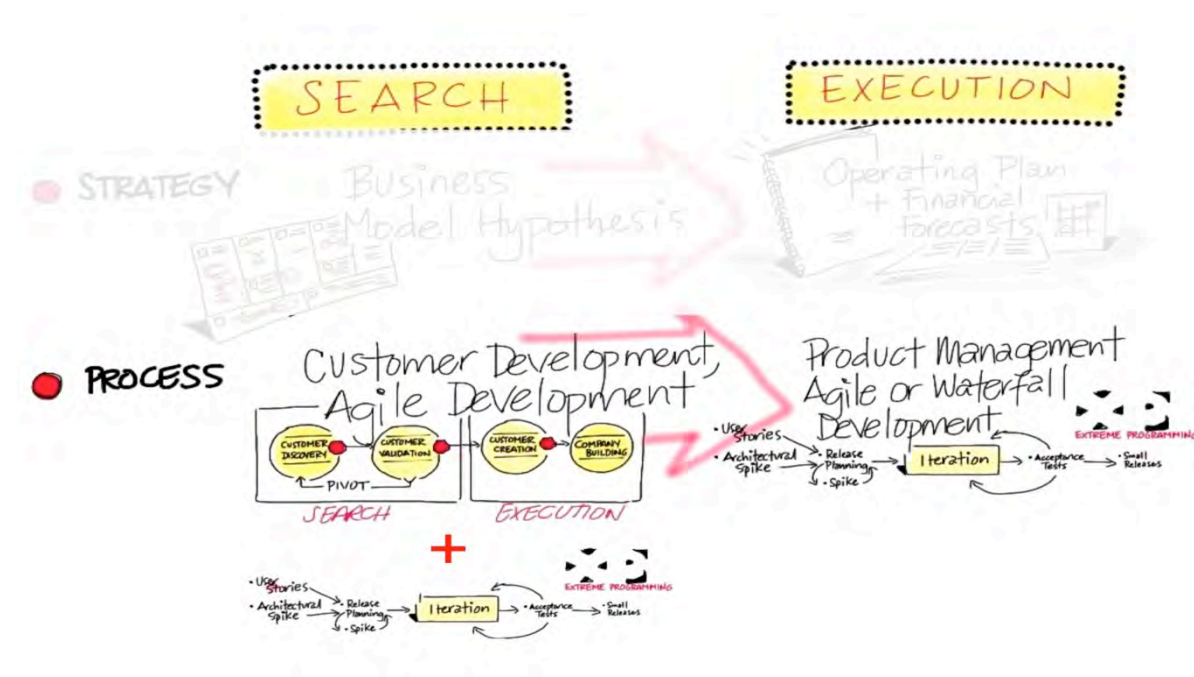
¹ <http://businessmodelalchemist.com/2011/01/methods-for-the-business-model-generation-how-bmgen-and-custdev-fit-perfectly.html>

pricing, [Get/Keep/Grow](#) strategy.² Once the business model is *known*, new ventures benefit from creating a business plan to determine and communicate how the business will be executed.

The term “business model” first appeared around 50 years ago, but the concept didn’t catch on [until the 1990s](#).³ A business model describes how a company creates, delivers, and captures value. It became common to discuss business models, but without a standard framework and vernacular, confusion reigned. In 2010, when Alexander Osterwalder published his book, [Business Model Generation](#), he provided a visual framework that was sorely needed, and it became obvious that the Business Model Canvas was *the* tool to organize startup hypotheses in a more structured way.⁴

The primary objective of a startup is to [validate its business model hypotheses](#) until it finds one that is repeatable and scalable (it continues to iterate and pivot until it does or runs out of time/money).⁵ Then it moves into *execution* mode. It’s at this point the startup needs a business plan, a document that articulates the model, market, competition, operating plan, financial requirements, forecasts, and other well-understood management tools.

Process: Customer and Agile Development to Product Management



Yet as powerful as the [Business Model Canvas](#) is (a template with the nine blocks of a business model—see Section 3), at the end of the day it is just a tool for identifying hypotheses without

² <http://steveblank.files.wordpress.com/2012/02/full-mobile-color-copyright.jpg>

³ <http://icc.oxfordjournals.org/content/11/3/529.short>

⁴ http://www.amazon.com/Business-Model-Generation-Visionaries-Challengers/dp/0470876417/ref=sr_1_1?s=books&ie=UTF8&qid=1312200974&sr=1-1

⁵ <http://steveblank.com/2010/10/25/entrepreneurship-as-a-science-%E2%80%93-the-business-modelcustomer-development-stack/>

a formal way of testing them.⁶ The Lean LaunchPad approach extends this process into the real world by providing a set of tools for testing hypotheses and enhancing the venture through experimentation and iteration.

The *processes* used to organize and implement the search for the business model are a combination of [Customer Development](#) and *agile development*.⁷ The search for a business model can occur in any new business—in a brand-new startup or in a new division of an existing company.

The Customer Development model breaks out all the customer-related activities of an early-stage company into four easy to understand steps. The first two steps outline the “search” for the business model. Steps three and four “execute” the business model that’s been developed, tested, and proven in steps one and two. The steps:

- *Customer Discovery* first captures the founders’ vision and turns it into a series of business model hypotheses. Then it develops a plan to test customer reactions to those hypotheses and turn them into facts.
- *Customer Validation* tests whether the resulting business model is repeatable and scalable. If not, the team returns to Customer Discovery.
- *Customer Creation* is the beginning of execution. It builds end-user demand and drives it into the sales channel to scale the business.
- *Company building* transitions the organization from a startup to a company focused on executing a validated model.

In the “search” steps, teams want a process designed to be dynamic, so they will work with a rough business model description knowing it will change. The business model changes because startups use Customer Development to run experiments to test their hypotheses that make up their business model (first testing their understanding of the customer problem, and then their proposed solutions). Most of the time, these experiments fail. *Search embraces failure as a natural part of the startup process.* Unlike existing companies that fire executives when they fail to match a plan, *the Lean Startup keeps the founders and fires the hypotheses by changing the business model.*

Organization: Customer Development Team to Functional Organization

Once a company has found a business model (meaning that it knows its market, customers, product/service, channel, pricing, etc.), the organization “graduates” from startup status and moves from search mode to execution.

In an existing business, the product execution process—managing the lifecycle of existing products and the launch of follow-on products—is the job of the [product management](#) and engineering organizations.⁸ It results in a *linear process* where teams make operating plans and refine them into detail. The more granularity added to a plan, the better people can execute it: a [Business Requirement Document](#)⁹ (BRD) leads to a Market Requirements Document (MRD),

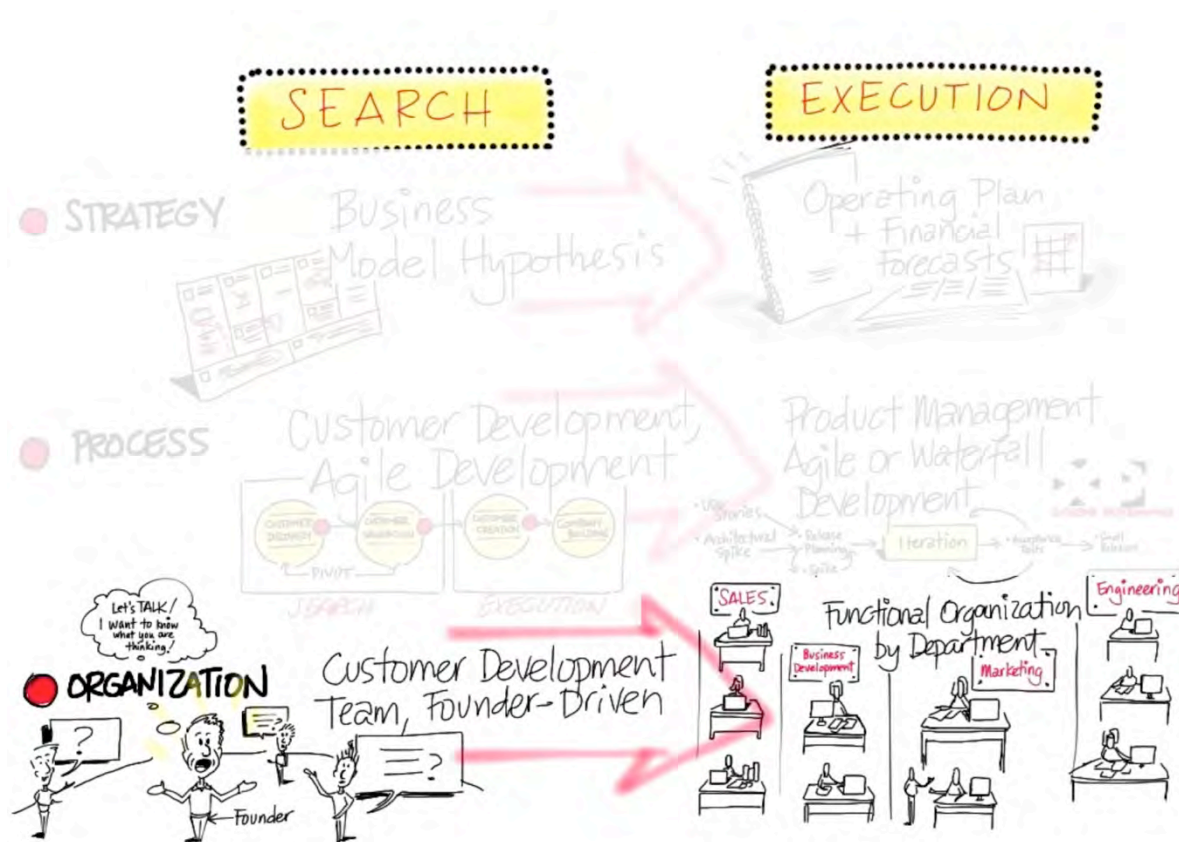
⁶ http://en.wikipedia.org/wiki/Business_Model_Canvas

⁷ http://www.stevenblank.com/startup_index_qty.html

⁸ http://en.wikipedia.org/wiki/Product_management

⁹ http://en.wikipedia.org/wiki/Business_requirements

which then gets handed off to engineering as a [Functional Specifications Document](#)¹⁰ (FSD) implemented via Agile or Waterfall development.



The search for a business model [requires a different organization](#) from the one used to execute a plan.¹¹ *Searching* requires the company to be organized around a *Customer Development Team* led by the founders. Only the founders can make the strategic decisions to iterate and/or pivot the business model, and to do that they need to hear customer feedback directly. In contrast, execution (which follows search) assumes that the job specifications for each of the senior roles in the company can be tightly defined. Execution most often requires a company to be organized by function (product management, sales, marketing, business development, etc.).

Companies in execution often suffer from a "[fear of failure culture](#)," quite understandable since the executives were hired to execute a known job spec.¹² In contrast, successful new ventures have Customer Development Teams that have a "learning and discovery" culture that thrives on the search process. The fear of making a move before every last detail is nailed down is one of the biggest problems that existing companies have when they try to implement a "search" process.

The idea of *not* having a functional organization until the organization has found a proven business model is one of the hardest things for most new startups (and most early stage

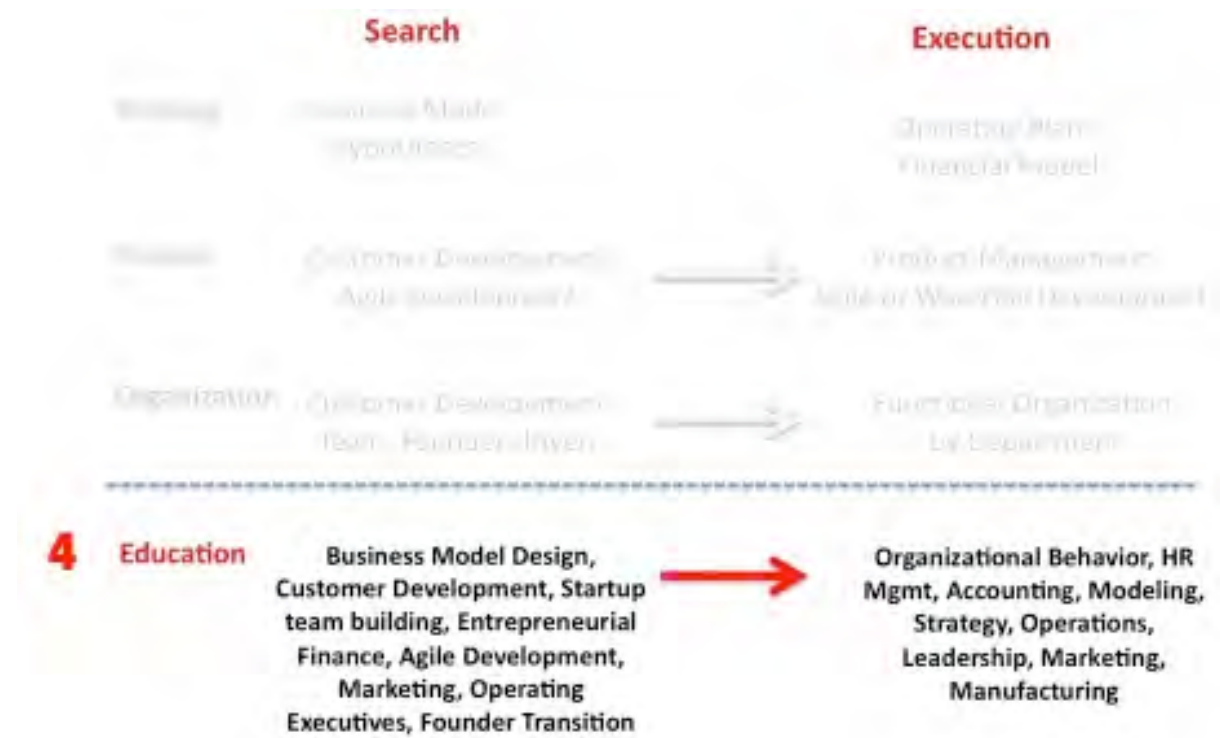
¹⁰ http://www.mojofat.com/tutorial/functional_spec_tutorial.pdf

¹¹ <http://steveblank.com/2010/09/13/job-titles-that-can-sink-your-startup/>

¹² Ibid.

investors) to grasp. *There are no sales, marketing, or business development departments when you are searching for a business model.* If you've organized your startup with those departments, you are not really doing Customer Development. (It's like trying to implement a startup using Waterfall engineering.)

Education: Search to Execution



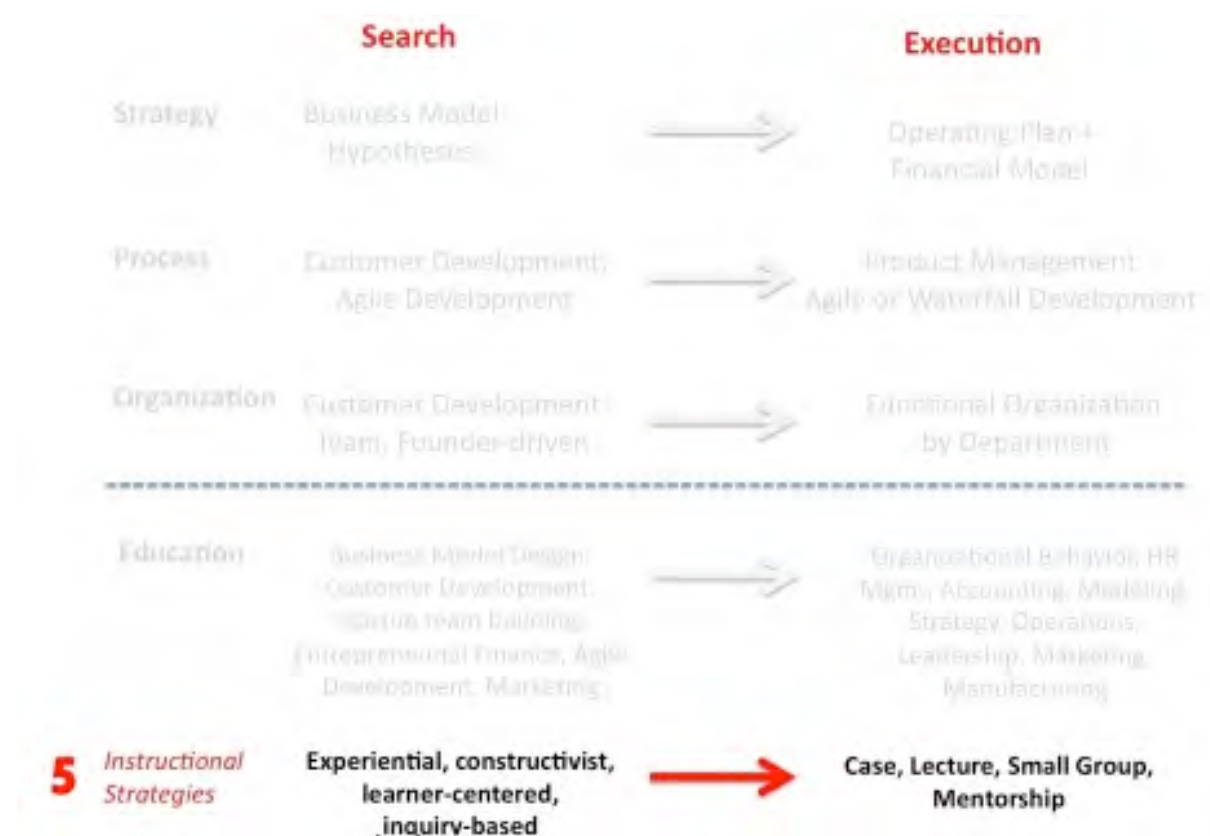
Entrepreneurship as an academic discipline is only a few decades old. They were first taught as electives and are now part of core business school curricula. However, the field is still struggling to escape from the bounds of the business plan-centric view that startups are “smaller versions of a large company.” Venture capitalists who’ve watched as *no startup business plan survived first contact with customers* continue to insist that startups write business plans as the price of entry to venture funding. This continues to be the case even as many of the best VCs understand that business “planning,” and *not* the “plan” itself, is what is important.

The trouble is that over time, this key message has gotten lost. As business school professors, many of whom lack practical entrepreneurial experience, studied how VCs made decisions, they observed the apparently central role of the business plan and proceeded to make the plan, *not the planning*, the central framework for teaching entrepreneurship. As new generations of VCs with MBAs came into the business, they compounded the problem: “That’s how we’ve always done it” or “That’s what I learned (or the senior partners learned) in business school.”

Entrepreneurship educators have realized that a plan-centric curriculum may serve for teaching incremental innovation, but it won’t turn out students prepared for the realities of building new ventures in a sea of uncertainty. Educators are only now beginning to build their own *E-School* curricula with a new class of management tools built around “search and

discovery.” Courses such as Business Model Design, Product/Service Development, Customer Development, Startup Team-Building, Entrepreneurial Finance, Marketing, Founder Transition, and so on all provide the startup equivalent of the management tools that MBAs need to learn to be successful in execution mode.

Instructional Strategy: Static to Dynamic



Entrepreneurial education is also changing the focus of the class experience from [case method](#) to hands-on experience.¹³ Invented at Harvard, the case method approach assumes that knowledge is gained when students actively participate in a discussion of a situation that could be faced by decision makers. At its heart, it is a simulation of a business context, putting the student in the role of the decision-maker.

But the search for a repeatable business model for a new product or service has no predictable pattern, it is a learning process in and of itself—not one easily reduced to a set of options or strategies. An entrepreneur needs to start with the belief that all of their assumptions are simply hypotheses that will undoubtedly be challenged by what they learn from customers. Analyzing a case in the classroom, removed from the realities of chaos and conflicting customer responses, adds little to an entrepreneur’s knowledge. Cases methods of teaching are an oxymoron because the world of a startup is too chaotic and complicated. Context is always shifting, and the nuances are too subtle to be derived from “case facts.” The case method is the

¹³ <http://www.hbs.edu/teaching/inside-hbs/>

antithesis of how entrepreneurs build startups. By teaching pattern-recognition tools for the wrong patterns we wind up delivering limited value to aspiring entrepreneurs.

The replacement for the case method is not better cases written for startups. Instead, it would be a real-world immersive experience in business model design; using the business canvas as a way to 1) capture and *visualize the evolution* of business learning in a company, and 2) see what *patterns* match real-world iterations and pivots. It is a tool that better matches the real-world search for the business model. It is the cornerstone of what we call “Evidence-Based Entrepreneurship”.

The Lean LaunchPad Method is best taught in a live case environment, where the cases being analyzed are the actual, real-time experiences of students (generally operating in teams) searching for repeatable and scalable business models for ventures they are seriously evaluating. This is done in a classroom where the students report on their experiences and receive real-time feedback from an instructional team of experienced practitioner-educators. The in-class discussion draws generalizable learning points from the specifics of each live case. These learning points are summarized and tied together to form the backbone of the pedagogical framework. In other words, the Lean LaunchPad Method draws the general framework from the specific experiences of the students.

Such teaching presents challenges: It relies on a teaching team able to derive these lessons real-time, without the benefit of knowing when the opportunities will arise, and it places a premium for using precious in-class time for reporting out and discussing student experiences. These pressures have given rise to several pedagogical innovations: first, to preserve class time, the Lean LaunchPad class is typically taught with a “flipped classroom.” Here, the lectures are homework (such as interactive videos) and the homework (testing hypotheses in front of customers) is classroom discussion as all teams present. Second, to keep track of the students’ Customer Discovery progress, we use an online tool (LaunchPad Central) to record the week-by-week narrative of their journey and track the frequency of customer, mentor, and instructor interactions. And third, in class, students use a live “back channel” Google document to record observations and advice for their fellow classmates. The teaching team integrates all these elements during class discussion and in individual team meetings.

A comprehensive entrepreneurial curriculum will obviously have more extensive core classes based on theory, lecture, and mentorship. However we believe this shift toward fundamentally experiential learning, emphasizing discovery as the core of the learning process, makes a significant contribution. There’s embarrassingly little research on entrepreneurship education and outcomes, but we do know that students learn best when they can connect with the material in a hands-on way, making their own mistakes and learning from them directly. We need to test the limits of bringing these methods to the fore.

As much as possible, the curricular emphasis ought to be on experiential, learner-centric, and inquiry-based classes that help to develop the mindset, reflexes, agility, and resilience an entrepreneur needs to search for certainty in a chaotic world.

Lessons Learned

- The search for the business model is the front end of the Lean Startup process.

- This is true in the smallest startup or largest company.
- The goal is to find a repeatable/scalable business model, and then execute. Agile and Customer Development are the processes used to search and build the model.
- Searching for the business model comes before executing it.
- Execution requires operating plans and financial forecasts.
- Product management is the process for executing the model.
- Entrepreneurial education is developing its own management stack:
 - Starting with how to design and search for a business model and adding all the other skills startups need.
 - The case method is the antitheses of experiential teaching, which is the core of the Lean Startup teaching method.

2. The Lean LaunchPad Class: Goals

The Lean LaunchPad class is currently taught in colleges, universities, accelerators, and incubators, and for the National Science Foundation. It has also been taught inside Fortune 1000 companies as a template for building new businesses. The class has different goals depending where it's taught and who the audience is.

In a graduate engineering or business school university class, the goal of the Lean LaunchPad is to impart an evidence-based methodology for *scalable startups* that students can use for the rest of their careers. When taught in an accelerator or incubator, the goal of the Lean LaunchPad is a series of investor-funded startups.

When this approach is used in a corporate environment, the Lean LaunchPad methodology helps companies discover how to efficiently and effectively start "new" businesses and allocate their internal resources (talent, technology and time) more efficiently.

Finally, by emphasizing small business tactics, the same Lean LaunchPad methodology can be used by "main street" businesses with similar results

Helping Startups Fail Less

The Lean LaunchPad doesn't guarantee that startups will succeed more. It does guarantee that if they follow the process, they will likely fail less.

We achieve this result by rapidly helping Lean LaunchPad teams discover that their initial idea will only be a small part of what makes a company successful.

3. Lean LaunchPad Pedagogy: Experiential Learning

The Lean LaunchPad is a hands-on program that immerses student teams by having them test their business model hypotheses outside the classroom. Inside the classroom, it deliberately trades off lecture time for student/teaching team interaction.

The Lean LaunchPad uses the Customer Development process and the Business Model Canvas to collapse the infinite possibilities of a startup into a set of solvable problems. This class uses *experiential learning* as the paradigm for engaging the participants in discovery and hypotheses testing of their business models. From the first day of class, teams get out of the classroom and learn by doing. Experiential learning has been around forever. Think of guilds and the apprentice system: mentors were the master craftsmen. That's the core idea behind the structure of this class.

This is very different from how a typical business school "how to write a business plan" class works. There, it assumed *a priori* that there was a valid business model. In the Lean LaunchPad class, the teams are *not* building a business (yet). Information they learn from customers will inform them and validate/invalidate their hypotheses (thesis). Throughout the course the teams will modify the business model (as they iterate or pivot). This results in the teams bringing market needs forward, after which they can decide if there's a worthwhile business to be built.

What this class does *not* include is *execution* of the business model. This course is all about

discovery outside of the classroom. As this discovery process unfolds it results in a high degree of confidence that a viable business model exists, then and only then would be the time to create an execution plan. If the student teams continue with their companies, they will assemble the appropriate operating plans (e.g., financial models, revenue plans, cash flow statements, balance sheets, etc.).

The Flipped Classroom

The class is run using a “flipped classroom.” Instead of lecturing about the basics during class time, the instructor assigns the core lectures as homework. Steve Blank has recorded eight 30-minute class lectures, each with quizzes. Students watch a lecture on each component of the Business Model Canvas, take a short quiz, and come to class prepared with questions about the topic. Students will use that new knowledge to test that specific part of the business model. (Of course, if they prefer, instructors could deliver the lectures in person.)

Instructors then supplement the video lectures with their own in-class short lecture about the week’s business model topic. This allows instructors to use the class time for review of the concepts or advanced topics.

Team Teaching: Students up Front

Rather than a single instructor lecturing in front of the classroom, the class is organized around the concept of a *team* of instructors commenting and critiquing on each team’s progress—sitting in the **back** of the classroom. It’s the students standing up in front of the class every week, sharing their progress who are doing the teaching while getting the instructors’ comments and critiques. While the comments may be specific to each team, the insights are almost always applicable to all teams.

The Lean LaunchPad class described in this document is not a survey or introduction to entrepreneurship class. It is designed as a simulation of real world entrepreneurship: hard, chaotic, intense, and rewarding. As instructors, you’ll push students harder than in any other class they will take. Not all students can make it through. Your role is to inspire them, encourage them, and push them, but in the end they need to decide whether entrepreneurship is for them. This class will help them decide. For you as an instructor **this, “pushing students” might be the hardest part of the class.**

4. Specialized Classes / Domain Specific Lectures

While the Lean LaunchPad class provides tremendous value getting students outside the building, it does not provide domain specific lectures or advice, (currently that’s provided by matching mentors with specific expertise to each team.) However we have found that for teams working in one specific domain (e.g. material science, ed-tech, clean tech, medical devices, diagnostics, digital health, therapeutics,) having knowledgeable domain instructors raises the level of the student outcomes.

These advanced lectures supplement the generic Udacity videos and offer domain specific

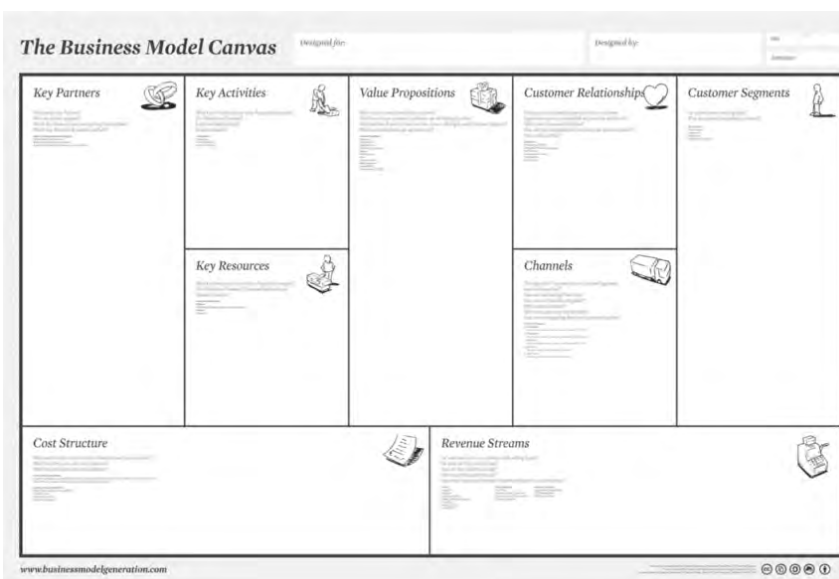
insights and context for each part of the Business Model Canvas. For example advanced medical device lectures would cover reimbursement and payers in the Customer Segment and Revenue Model, cover intellectual property, regulatory issues such as PMA's and 510k's, and clinical trials in Activities, and the role of CRO's in the Resources lecture, etc.

Note that fields with generic labels such as Life Sciences or Clean Tech, actually have specialized subdomains. For example, there is no Business Model for something called Life Sciences. There are specific Business Models for the subdomains of medical devices, diagnostics, digital health, therapeutics. The same holds true for Clean Tech. There are specific Business Models for the subdomains of recycling, renewable energy (wind power, solar power, biomass, hydropower, biofuels), information technology, green transportation, electric motors, green chemistry, lighting, Greywater.

5. The Lean Startup in the Classroom: Evidence Based Entrepreneurship

The Business Model Canvas

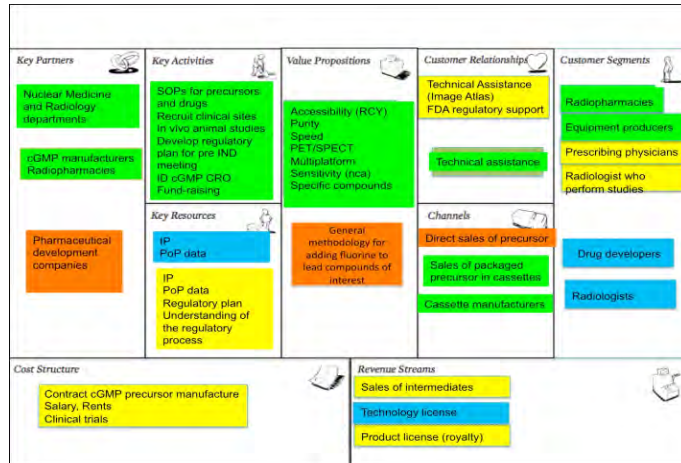
Often there's a lack of a shared and clear understanding of how a startup creates, delivers, and captures value. This course uses Alexander Osterwalder and Yves Pigneur's Business Model Canvas (and [text](#)) to diagrammatically illustrate how that happens.¹⁴



The canvas represents a company in nine boxes, depicting the details of a company's product, customers, channels, demand creation, revenue models, partners, resources, activities, and cost structure.

When teams first draft their initial hypotheses, their canvas begins to fill up, looking like this:

¹⁴ <http://www.amazon.com/Business-Model-Generation-Visionaries-Challengers/dp/0470876417>

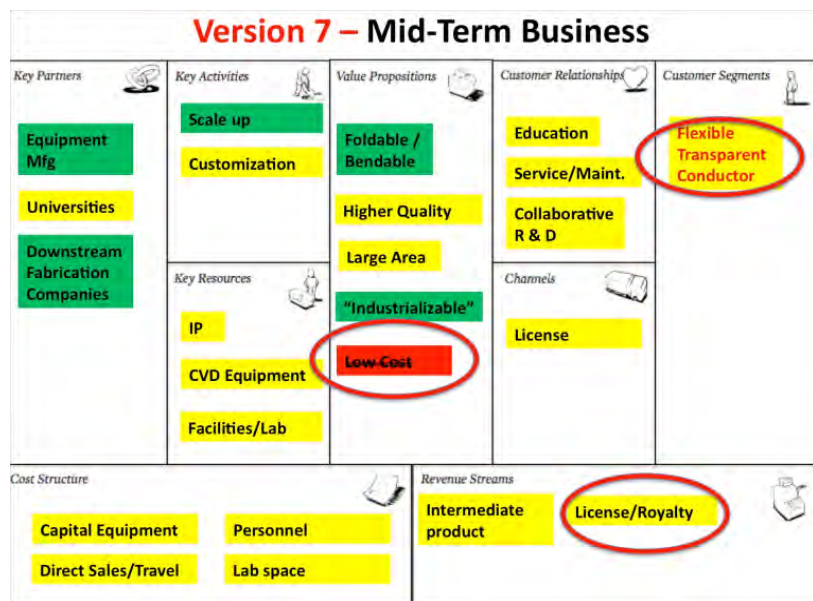


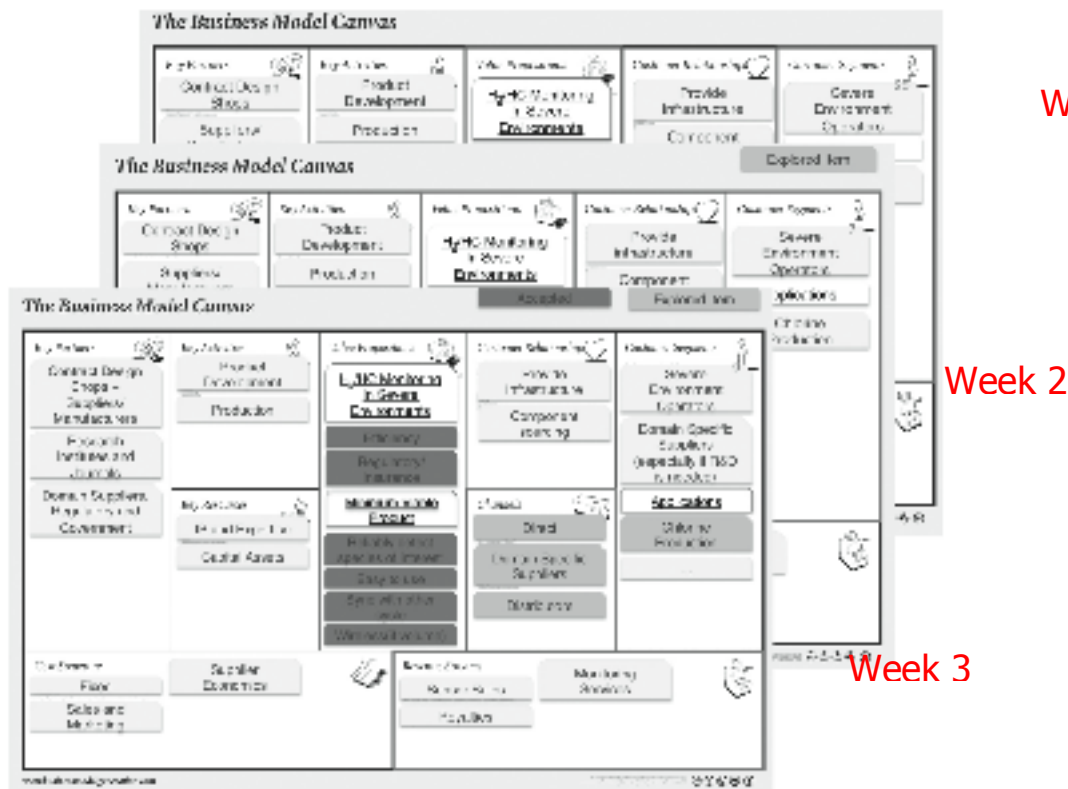
In addition to using the Business Model Canvas as a static snapshot of the business at a single moment, Customer Development—and this class—extends the canvas and uses it as a “scorecard” to track progress week by week as the teams search for a repeatable, scalable Business Model.

Every week, the teams update their Canvas to reflect any pivots or iterations, highlighting in red the changes from the previous week.

Then, after the team agrees to the business model changes, they integrate them into what becomes the new Canvas for the week (the accepted changes in red are then shown in black). During the next week, any new changes are again shown in red. The process repeats each week, with new changes showing up in red.

By the end of the class, teams will have at least eight Canvases. When viewed one after another, they show something never captured before: the entrepreneurial process in motion.





The Business Model Canvas as a Weekly Scorecard

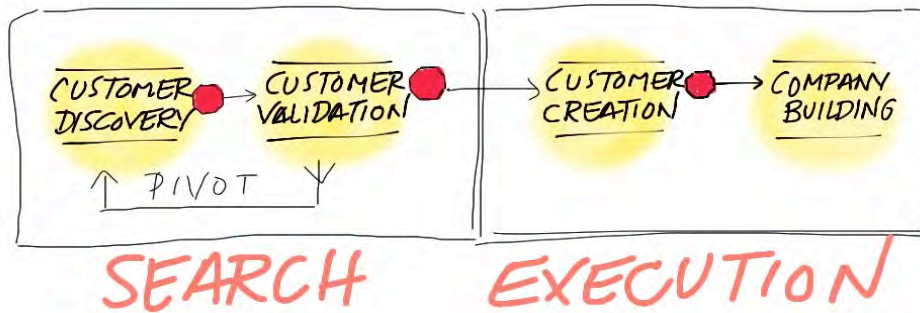
Customer Development

The [Business Model Canvas](http://en.wikipedia.org/wiki/Business_Model_Canvas) is, at the end of the day, a tool for brainstorming hypotheses without a formal way of testing them.¹⁵

The *process* used to organize and implement the search for the business model is *Customer Development*. And for this course, that search occurs *outside the classroom*.

The Customer Development model breaks out customer-related activities into four steps. The first two steps of the process outline the “search” for the business model. Steps three and four “execute” the business model that’s been developed, tested, and proven in steps one and two.

¹⁵ http://en.wikipedia.org/wiki/Business_Model_Canvas



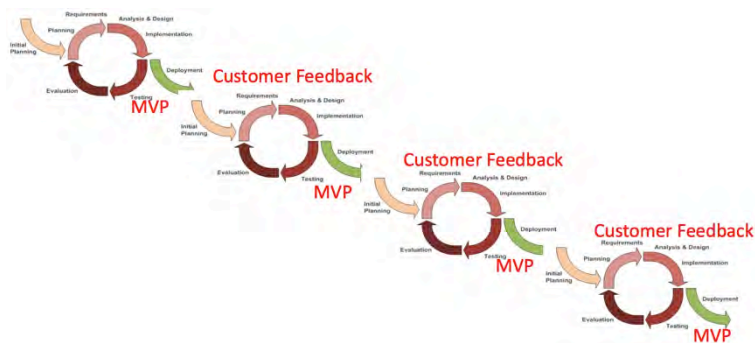
The Lean LaunchPad class focuses on the two “search” steps:

- *Customer Discovery* captures the founders’ vision and turns it into a series of business model hypotheses. Then, teams develop a plan to test customer reactions to those hypotheses and turn them into facts.
- *Customer Validation* tests whether the resulting business model is repeatable and scalable. If not, teams return to Customer Discovery.

We use Steve Blank and Bob Dorf’s *The Startup Owner’s Manual* as the text to teach Customer Development concepts.

Agile Development

In contrast to traditional product development, in which each stage occurs in a linear order and lasts for months, agile development builds products iteratively and incrementally in short, repeated cycles. A startup produces a “minimum viable product” (MVP) containing only the critical features, gathers feedback from customers, then revises the minimum viable product based on what was learned.



6. The Lean LaunchPad Class: At A Glance

PRE-CLASS SET UP				BUSINESS MODEL VALIDATION + CUSTOMER DEVELOPMENT + AGILE DEVELOPMENT								
OUTREACH	APPLY	TEAM SELECTION	KICK OFF	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9/10
				Opportunity Assessment	Product-Market Fit		Channel	Get-Keep-Grow	Key Partners	Revenue Models	Metrics matter	Demo Day
Social Media outreach	Team LinkedIn / Twitter Profiles	Domain Expertise	TA sets up teams in LaunchPad Central	Market Size Analysis	Competitive landscape analysis	Define Customer Archetype	Channel Ecosystem Map	Funnel diagram for Web/Mobile	Partner Ecosystem Map	Unit Economics	Customer Life Time Value (LTV)	HIGH FIDELITY MVP DEMO
First info session	Role on Team? Hacker, Hustler, Designer	Team Balance	Teams, Mentors, Instructors get welcome email	Market Type hypothesis	Identify Customer Pains/Gains	Fill out Customer Pains/Gains canvas	Channel Economics	Funnel diagram for physical products	Partner Type hypotheses	Payment flow diagram	Customer Acquisition Cost (CAC)	2 min Customer Dev story video
Second info session	Business Model Canvas	How good is the initial hypothesis or yet another iPhone photo sharing app?	Teams, Mentors & Instructors successfully complete LPC login	Define Experiments & Pass/Fail tests for Value Prop & Customer hypotheses	Refine Experiments & Pass/Fail test for Value Prop & Customer	Define Experiments & Pass/Fail tests for Channel hypotheses	Define Experiments and Pass/Fail tests for Get-Keep-Grow hypotheses	Define Experiments & Pass/Fail tests for Key Partner hypotheses	Define Experiments & Pass/Fail tests for Rev Model hypotheses	3 year revenue projection hypotheses	metrics that matter	10 minute PowerPoint presentation
Mentor outreach (LPC database of mentors)	Team Interview	Eager to learn, or here to execute their idea?	TA trains Faculty on LaunchPad Central	Team Presents: Peer Inputs + Instructor Grading	Team Presents: Peer Inputs + Instructor Grading	Team Presents: Peer Inputs + Instructor Grading	Team Presents: MVP WIREFRAME DEMO	Team Presents: Peer Inputs + Instructor Grading	Team Presents: Lo-Fidelity MVP DEMO	Team Presents: Peer Inputs + Instructor Grading	Team Presents: Peer Inputs + Instructor Grading	
LaunchPad Central Training for TA		final team selection (8 teams)	TA trains Mentors on LaunchPad Central	Mentor Engagement on LPC	Mentor Engagement on LPC	Mentor Engagement on LPC	Mentor Engagement on LPC	Mentor Engagement on LPC	Mentor Engagement on LPC	Mentor Engagement on LPC	Mentor Engagement on LPC	



PRE-CLASS SET UP				LEAN LAUNCHPAD: BUSINESS MODEL VALIDATION + CUSTOMER DEVELOPMENT + AGILE DEVELOPMENT								
OUTREACH	APPLY	TEAM SELECTION	KICK OFF	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9/10
				Opportunity Assessment	Product-Market Fit		Channel	Get-Keep-Grow	Key Partners	Revenue Models	Metrics matter	
			TA Trains Teams on LaunchPad Central	Instructor Office Hours	Instructor Office Hours	Instructor Office Hours	Instructor Office Hours	Instructor Office Hours	Instructor Office Hours	Instructor Office Hours	Instructor Office Hours	
			Team-Mentor-Faculty mixer	View Udacity Lecture 2: Value Prop	View Udacity Lecture 3: Customers	View Udacity Lecture 4: Channels	View Udacity Lecture 5: Get/Keep/Grow	View Udacity Lecture 6: Partners	View Udacity Lecture 7: Revenue	View Udacity Lecture 8: Costs		
			View Udacity Lesson 0: Before you get started and Lesson 1: What we now know Lesson 1.5 Bus Model & Cust Dev	Customer Interviews for Product-Market fit	Customer Interviews for Product-Market fit	Customer Interviews for Channel	Customer Interviews for Get-Keep-Grow	Customer Interviews for Key Partners	Customer Interviews for Revenue Model	Customer Interviews	Customer Interviews	



7. Outreach

Team Formation: Mixers/Information Sessions

Beginning six weeks before class starts, we have found it helpful to sponsor the first of three student mixers/information sessions about the class. (We hold one every two weeks.)

We have our teaching assistant organize an evening session, provide pizza, and create demand by widely broadcasting how exciting the class is and providing the info session location with posters all over campus, emails to department lists, etc.

At the mixer, the teaching team members introduce themselves and provide a short, 10-minute overview of the class. Next, we take questions from the potential students. Then we ask, "Who has an idea for a team?" We go around the room and let each of those students introduce themselves (technical work background) and their idea (maximum two minutes each).

Finally, we ask, "Who's looking for a team to join?" We have those students introduce themselves (background and interests). The teaching team then leaves the students to mix and see if they can form teams.

Mentor/Advisor Outreach

While we are recruiting students, we are also looking for mentors. We prefer to have at least one mentor per team. We keep a spreadsheet of possible mentors and advisors. This class has *no* guest lectures. Getting mentors involved is not about having them come in and tell war stories. Look for experienced local entrepreneurs and investors who are willing to learn as much as they will teach.

In recruiting mentors, it is important to select individuals with significant intellectual curiosity, relevant business experience, and who have a generous spirit, and who understand the value of the Business Model Canvas and Customer Discovery. The right mentor will understand by the end of the class that a Customer Discovery narrative and the Business Model Canvas are important tools for building early-stage ventures.

It is important to set expectations for mentor involvement up front. Successful mentor engagement is typically 2-3 hours per week throughout the course. Ideally the teams will share their weekly presentations with their mentor the day or evening before the class and get their feedback. After the class, they will want to share the results of that presentation and their plan for the week ahead. In addition to watching the weekly video lectures and staying current (or ahead) on the readings in the syllabus, the mentors will also want to track and comment on their team's progress periodically in LaunchPad Central. (See details below)

8. Teaching Team

While a single instructor and a part-time teaching assistant can teach this class, assuming no more than 8 teams, the optimal teaching team would have a minimum of:

- Two instructors
- A teaching assistant
- One mentor per team

Faculty

On its surface, the class could be taught by anyone. The Business Model Canvas and Customer Development do not appear overly complex, and with a flipped classroom the students appear to be doing all the work. All an instructor must do is critique and grade their weekly presentations.

However, the quality, depth, and insight instructors should bring to the critiques of the teams' weekly progress is the core of the class. If you've had startup (not just general business) expertise, then the critiques you offer to your students draw from the many painful lessons you've learned building businesses. If you haven't had direct startup experience, you can still do a fine job, just be aware that there may be some old teaching habits to break.

In a perfect world, at least one of the instructors would be an adjunct with startup experience, and if available, the other would be a local angel investor or venture capitalist. Having an adjunct allows class critiques to be based on specific pattern recognition skills that bring credibility to the teaching team's comments.

Having a local investor/VC on the teaching team comes with one unexpected benefit—time after time we've seen that the class will change the perception of the investor on the teaching team. VCs will stop believing that a business plan or a standard investor pitch deck is useful, or at least question its utility. They will start to understand that a Customer Discovery narrative and a Business Model Canvas are more effective tools to judge early stage ventures.

Teaching Assistant

Given all the moving parts of the class, a teaching assistant keeps the trains running on time. Here's what they do:

Pre-class:

- Organize the mixers/information sessions.
- Keep track of student applications.
- Answer basic questions about the class and application process.

During Class:

- Manage LaunchPad Central (see section 13). This includes:
 - The *instructor-grading sheet* used by the teaching team for grading and real-time collaboration for instructors.
 - The *student feedback-grading sheet* used by the students to offer feedback to their peers. (Actually designed to keep students *actively engaged in watching* the progress of other teams rather than reading their email.)
- Communicate in-class information to course participants.

- Collect weekly team presentations and manage the order of presentation and timing.
- Maintain an optional *startup wisdom document*, which the TA uses to capture and post teaching team critiques.
- Maintain all aspects of LaunchPad Central's "Resource Hub" including the Office Hours signup sheet.

Mentors and Advisors

Mentors play an active role in weekly coaching of a specific team. *Advisors* are on-call resources for the entire class.

The Role of Mentors

Mentors are an extension of the teaching team responsible for the success or failure of a team with four students. The role of the mentors is to help their *teams test their business model hypotheses*. Here's what they do:

Offer teams *strategic* guidance and wisdom:

- Offer business model suggestions.
- Identify and correct gaps in their team's business knowledge.

Provide teams with *tactical* guidance every week:

- Comment weekly on the team's LaunchPad Central Customer Discovery progress.
- Review the team's weekly presentation *before they present*.
- Respond to the teaching team's critique of their team.
- Rolodex help: "Why don't you call x? Let me connect you."
- Push their team to make 5 - 10 customer contacts/week.
- Meet one-on-one with their team at least twice during the class.
- Stay current (or ahead) of the weekly lectures and readings in the syllabus.
- Check in with the teaching team at classes 3 and 7 to discuss student progress.

If mentors can't commit to the time required, have them consider being an advisor.

How Mentors Help Teams

Team mentors are involved on a regular basis with their teams throughout the course. *Weekly interaction and comments via LaunchPad Central are the minimum expectations*. Bi-monthly face-to-face meetings are also expected. These should be scheduled at the mentors' convenience. Questions from mentors to their teams that are helpful are: "Have you considered x?" "Why don't you look at company z and see what their business model is and compare it to yours," or "Here are some names of domain experts in the field, you should talk to them." Mentors should try to avoid specifically telling students what to do.

Remember: The class is not trying to be YCombinator. We are trying to give students models, heuristics, and experience they can apply when they leave the class. The class is about what they learned on the *journey*.

If a team is building a Web-based business, they need to get the site up and running during the semester. The goal is not a finished or polished site, but a vehicle with which they can test their assumptions about Minimum Feature Set, demand creation, virality, stickiness, etc.

We give the mentors this single page summary of their responsibilities.

Lean LaunchPad Mentor Cheat Sheet

1. What's my role?

Strategic Guidance

- Offer business model suggestions
- Identify and correct gaps in your team's business knowledge

Tactical Guidance

- Rolodex help - "why don't you call x? Let me connect you."
- Push your team to make 10 - 15 customer contacts each week

3. What are my other commitments as a mentor?

- Attend a 1-hour mentor training session or watch the recording of the session if you cannot make it in person
- Watch Udacity lectures and stay 1 week ahead of the class
- Check in with teaching team at class 3 and 7 to discuss student progress
- Attend weekly 30-minute mentor call with your cohort instructor and other mentors
- Attend your team's final presentation on Dec 10
- Invited, but not required, to attend weekly lectures and student presentations Tuesdays 5:30-9pm

2. How do I interact with my team?

- Review your team's *weekly* presentation *before* they present on *Tuesdays*
 - **Best Practice:** Schedule a weekly meeting (in person or Skype) for Mondays to review their presentation in real time
- Comment *weekly* on your team's Customer Discovery progress via LaunchPad Central
 - **Best Practice:** Log into LPC everyday for a to read and comment on a few interviews
- Respond to the teaching team's critique of your team
 - **Best Practice:** Schedule a weekly meeting (in person or Skype) for Wednesdays to hear how your team's presentation went and help them regroup for the next week
- Meet face-to-face with your team at least twice during the class; Skype/Google Hangout etc. and conference calls are OK for other weekly meetings

It's almost impossible for a mentor to perform at a high level if they are not "playing along" with the same content/curriculum as their team. They need to be watching the weekly course videos with their teams.

The best mentors have an active curiosity and desire to learn (and help improve) new innovative approaches to learning and teaching entrepreneurship. Mentors who approach this opportunity with a "learn something new" attitude invariably contribute the most, thank the teaching team for inviting/including them, and can't wait to do it again.

The Role of Advisors

Advisors are a resource to the class and any of its teams for a particular domain of expertise.

An advisor commits to:

- Respond to student emails/phone calls within 24 hours.
- Skype calls with one/two teams a week, as needed.

Mentor/Advisor Weekly Email

After each class, we send mentors a weekly email summarizing what their teams should be doing. The emails are accompanied by a short set of PowerPoint slides summarizing the week's learning for the class. (The weekly mentor update slides can be found [here](#)¹⁶.)

¹⁶ <http://www.slideshare.net/sblank/tagged/syllabus>

Below is an example of an email that would be sent out right after class 2:

Hi Mentors,

Welcome to the kick-off of the Lean Launchpad! We hope you've all had a chance to meet your teams and are looking forward to a fantastic quarter.

This week the teams are doing discovery on Value Proposition. Please watch Udacity lectures Lesson 2: [Value Proposition](#) and Lesson 3: [Customer Segments](#) (in preparation for next week). Your role this week is to offer them critique on LaunchPad Central. Even better, find a time to chat in person or via Skype to offer them your advice/counsel and wisdom.

I've attached two documents to this email:

- 1) A cheat-sheet of the responsibilities/best practices for mentors.
- 2) A short deck (6 slides) that summarizes teaching objectives and common student errors. As a reminder, teams need to be focusing on the right half of the canvas focusing on understanding their Value Proposition, whether they have a multi-sided market, the archetypes of each of the segments and whether they have product-market fit.

All of these Mentor Update slides will be posted on LaunchPad Central in the Resource Hub section. Please let me know if you have any questions.

Thanks for all your help,

Stephanie

9. Student Teams

Through trial and error, we've learned that the class is best when:

1. It's team-based.
2. It's interdisciplinary.
3. Admission is selective, by interview based on passion and team composition.
4. There are a maximum of eight teams per class.

When taught as a graduate class, this means each team should have a mix of students from a variety of academic backgrounds: business students, engineers, med students, etc. When taught as an undergraduate class, it means having students across a diverse set of majors. We have found the class fails when admission is open to all and not selective.

Cross-Disciplinary Team Formation

We try to open the Lean LaunchPad class to students from all departments. Try to avoid creating homogenous teams of all engineers or MBAs. The best teams are a mix.

Admission by cross-disciplinary team can be a challenge in the bureaucracy of the siloed academic world. Depending on where the course is situated in your college or university, you may run into a "you can't do that" attitude and rules.

Some business schools may want you to admit their own students regardless of skill or passion. Some may want to control class admission through a class bidding or other system. Depending on sponsorship, departments may want you to admit a quota from their own discipline.

Try to resist these pressures. To successfully run this class, you need students who fight to get into it, not those who treat it as just another elective. This class requires a great deal of work. You are going to push these students extremely hard.

Team Formation: Admission

Admission by Interview

As constructed in this guide, this course requires instructor permission for admission. The teaching team selects the best student *teams* for admission, as opposed to the best *projects*.

Your department may have bidding processes or first come, first served rules for class admission. We've taught the class using those rules and found that they greatly diminish the experience for the students and the teaching team. (Obviously, if those are the rules you will have to make do.)

In the past, we'd select the best *ideas* for admission. The irony is we already knew that almost every one of those ideas would substantively change by the end of the class.

Now we select for the best *teams*. What we look for is a balanced team *with passion*. Is there a hacker, a hustler and a designer on each team? Teams that simply have great ideas but no ability to implement them typically fail. When taught in a university, we want the students in the course to focus on a scalable idea, i.e., one that can grow to 10s or 100s of millions of dollars.

When taught in colleges, the same class can be used to teach the skills necessary to build successful *small business* startups.

Admission by Teams, Not Individuals

Admission to the class is by team. We do not accept individual applications.

We found that having the students come in with an already-formed team accomplishes three things:

- It saves weeks of class time. Students have met, gotten to know each other, have brainstormed their idea, and are ready to hit the ground running.
- It eliminates many of the challenging team dynamics issues of finding out which students can't work with each other. Most (though not all) of these issues get worked out pre-class on their time, not the instructors'.
- Most importantly, we get to select student teams for their passion, interest, curiosity, and the ability to learn on their own.

As teams are formed in the mixers, the teaching assistant schedules team interviews during the 2nd and 3rd mixer (and another later mixer, if needed).

Team Projects

Team projects can be a product or service of any kind. This can include software, physical products, and Web-based services. For many students, their first instinct may be a Web-based startup. We suggest that they consider a subject they are a domain expert in, such as something related to their personal interests or academic research. In all cases, they should choose something for which they have passion, enthusiasm, and hopefully some expertise.

"Outside" Ideas

As teams form during the mixers, at times we've found that we have teams with execution skills looking for great ideas. We've used this to connect with local venture capital firms or incubators/accelerators that have great ideas but are looking for a team.

We've allowed ideas to come from outside the classroom (e.g., VC firms, incubators, accelerators) as long as the team members participating in the class are the ones primarily doing the work. They need to be the ones talking to customers, getting out of the building, and doing the learning. Their outside helpers/idea generators can sit in on the class, but do not participate in presentations or discussion.

Only Project

Many students like to run multiple startups. In the past we've neglected to insist that this class be the only startup project they're working on during this quarter/semester. This was a mistake, as students would run out of bandwidth and literally abandon their teams for a more promising project they were working on. We now make them pledge that this is the only startup project they will work on during this class.

Team Formation: Application Forms

Students apply as teams. They tell us about themselves and their team using the "Team Information" template in Figure 1. They also submit a Business Model Canvas using the "Business Model Information" template in Figure 2. And they submit a competitive analysis "Petal Diagram" as shown in Figure 3.

The teaching team interviews *all* teams, generally in 5-10 minute "speed dating" sprints. We have also found a grading form similar to the one below is a useful way of keeping track of each team's candidacy.

TEAM NAME HERE				
TEAM MEMBERS	Member 1 Name	Member 2 Name	Member 3 Name	Member 4 Name
Degree program and Department/ Major	Ex. MS in Computer Science	Ex. MBA in Finance		
Provide your LinkedIn public profile URL				
Are you the subject matter expert (SME) for this team?				
Pick a role you think you most likely will play on this team (Hustler, Hacker, Designer or Product Picker)	Hacker = Engineer Hustler = Customer Development Designer = Product Picker = Visionary			
Anything interesting we should know about you (be brief)				

Figure 1. Lean LaunchPad Application: Team Information

Team Name Here

Fill Out all 9 Boxes of the Canvas in Order 1 Thru 9

<p><i>Key Partners</i></p> <p>6</p> <p>Who are our Key Partners?</p> <p>Who are our key suppliers?</p> <p>What are we getting from them? Giving them?</p>	<p><i>Key Activities</i></p> <p>7</p> <p>What Key Activities do we require? Manufacturing? Software? Supply chain?</p> <p><i>Key Resources</i></p> <p>8</p> <p>What Key Resources we require? Financial, physical, IP, HR?</p>	<p><i>Value Propositions</i></p> <p>1</p> <p>Which of our customer's problems are we helping to solve?</p> <p>Which customer needs are we satisfying?</p> <p>What are the Key Features of our product that match customers problem/ need?</p>	<p><i>Customer Relationships</i></p> <p>4</p> <p>How will we Get, Keep and Grow Customers?</p> <p><i>Channels</i></p> <p>3</p> <p>Through which Channels do our Customer Segments want to be reached?</p>	<p><i>Customer Segments</i></p> <p>2</p> <p>Who are our most important customers?</p> <p>What are their archetypes?</p> <p>What Job do they want us to get done for them?</p>
<p><i>Cost Structure</i></p> <p>9</p> <p>What are the most important costs inherent in our business model? Fixed? Variable?</p>		<p><i>Revenue Streams</i></p> <p>5</p> <p>How do we make money? What's the revenue model? Pricing tactics?</p>		

Figure 2. Lean LaunchPad Application: Business Model Information

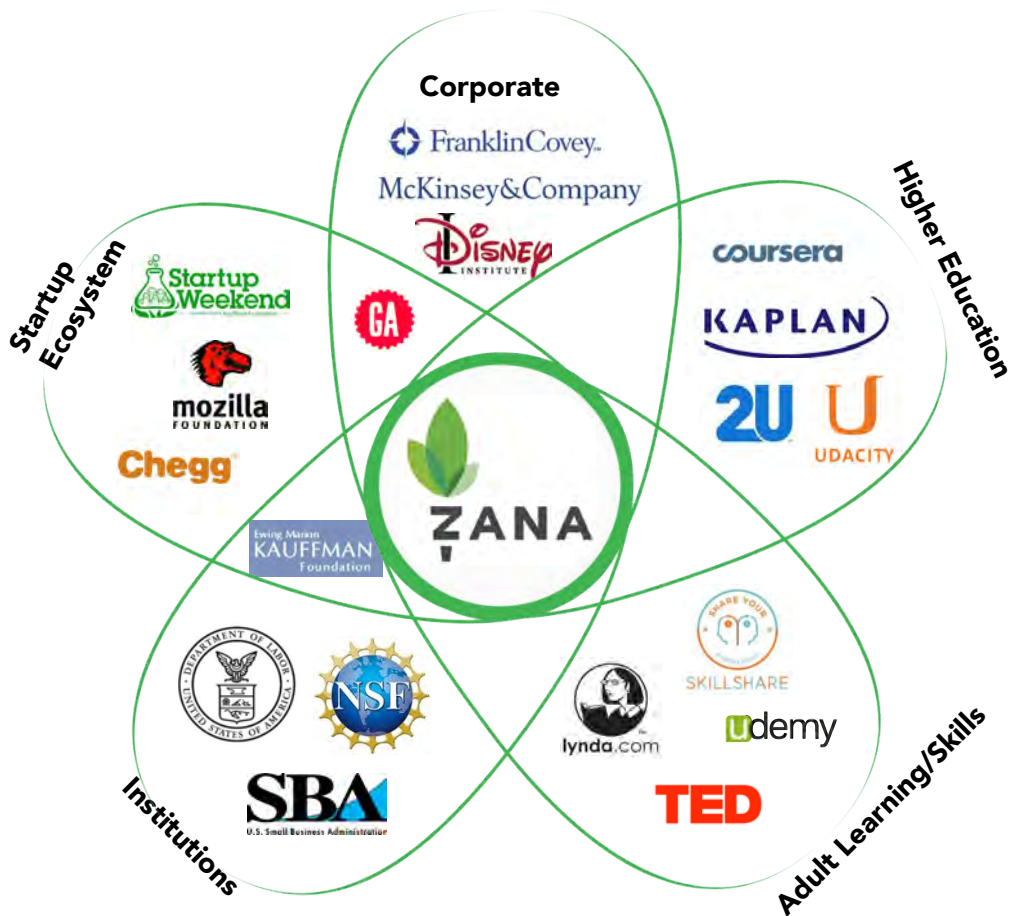


Figure 3. Lean LaunchPad Application: Competitive Analysis Slide

	A	B	C	D	E	F	G	H
1		Team Name	Overall strength of team (1-10; 10 highest)	Scalable? (1-10; 10 highest)	Market Opportunity? (1-10; 10 highest)	Quality of thought on business canvas (1-10; 10 highest)	Jim: Make Preliminary Cut? Yes or NO	Jim's Comments
2	1	I3	6	6	5	6	perhaps?	did nothing to get out of the building before the meeting
3	2	Goalzy	7	5	4	4	NO	counseling idea MAY have merit ...
4	3	ARTRA	5	4	3	4	NO	there are several discovery engines ...
5	4	Givemodo	8	7	6	7	Yes	with a member named "Dash" you have to love them ...
6	5	Team Awesome	6	4	4	4	perhaps?	Garanimals for adults 'in-store' shopping/matching
7	6	Analyze.me	5	3	3	3	NO	ouch (love Suman Ravuri however ...)
8	7	Ideal Space	6	6	6	6	possibly	using big data to improve retail real estate leasing (SMB and broker/landlord market)
9	8	Skrubb.it	8	7	8	7	Yes - FOR SURE	real potential ... lots of work to do here ... is there real IP?
10	9	Pesticide ID	7	7	7	7	Yes - FOR SURE	great team; balanced approach; interesting area; lots to learn
11	10	CloudSlate	11	4	4	6	Yes -- different idea?	super smart team; aiming high enough ??
12	11	EPT	5	5	5	5	doubtful	if yield management, maybe; if cost reduction, unlikely
13	12	Freewire	6	4	4	5	yes - on the bubble	niche to a niche ... wireless charging
14	13	Team Gobe						
15	14	BizFund						
16	15	HQH						
17	16	Team Faire						
18	17	Negotiation Engine						
19	18	Onkon	7	5	4	5	perhaps yes - if they can solve the customer development challenge	9th team with this "idea" -- where/how they pivot is question
20	19	Jambo	8	6	6	7		they are trying to do way too much; but what they are trying to do is important and needs to be done (by someone)
21	20	Storylink	5	5	5	5	no	too many people chasing down this dead end ...
22	21	ShopperMates	5	4	3	4	no	shopping ?
23	22	Club Level	6	4	4	4	no	concert ticket exchange?

Figure 4. Team Admission Instructor's Grading Sheet

Using the Business Model Canvas as an application form starts the teams thinking long before the class starts about some of the fundamental questions regarding their team project, such as "What is a business model? What product or service am I offering? Who are my customers?"

We set the pace and tempo of the class by having the teams present the Business Model Canvas they used as an application on the first day of the class. This way they hit the ground running.

Team Formation: Organization and Roles

The teams *will self-organize and establish individual roles on their own*. We've found that having the teaching team try to form teams creates zero team cohesion: "I didn't do well because you assigned me to people I didn't like."

Within teams there are no formal CEO/VPs, just the constant parsing and allocation of the tasks that need to be done. By design, the teams need to figure out how to collaborate.

10. Class Culture

Startups are inherently chaotic. You need to prepare your students to think creatively and independently, because more often than not, conditions on the ground will change so rapidly that their originally well-thought-out plan becomes irrelevant.

If they can't manage chaos and uncertainty, if they can't bias themselves for action and if they wait around for someone else to tell them what to do, then their investors and competitors will make their decisions for them and they will run out of money and their company will die.

Therefore, the best way to keep a startup alive is to instill in every founder a decisive mindset that can quickly separate the crucial from the irrelevant, synthesize the output, and use this intelligence to create islands of order in the all-out chaos of a startup.

This class is designed to provide that chaos and bias for action.

Every potential startup founder should think about their level of comfort operating in chaos and uncertainty. This class may not be for them.

We tell students that startups communicate much differently than groups inside a university or a large company. It is dramatically different from the university culture most of them are familiar with. At times it can feel brusque and impersonal, but in reality it is focused and oriented to create *immediate action* in time- and cash-constrained environments. We have limited time and we push, challenge, and question the students in the hope that they will quickly learn. We are direct, open, and tough—just like the real world. We hope that students can recognize that these comments aren't personal, but part of the process.

We remind them that this approach may seem harsh or abrupt, but it is all part of our wanting them to learn to challenge themselves quickly and objectively, and to appreciate that as entrepreneurs they need to learn and evolve faster than they ever imagined possible.

We even put a "black box" warning in the syllabus that says:

This class pushes many people past their comfort zone. If you believe that the role of your instructors is to praise in public and criticize in private, you're in the wrong class. **Do not take this class.** If you come from a culture where receiving critiques that may feel abrupt and brusque in front of your peers—weekly—embarrasses you, **do not take this class.** It's not personal, but it is by design a part of the class to emulate the pace, uncertainty, and pressures of a startup. In return, we also expect you to question us, challenge our point of view if you disagree, and engage in a real dialog with the teaching team.

The value of the Lean LaunchPad class as we teach it is to push students to achieve extraordinary results under relentless pressure. What we have found is that there are a few types of students who simply cannot take public criticism or the pressure. First, if the class has no application process and simply lets in all who apply, students are going to be stunned, overwhelmed, and angry at the amount of work expected from them. Second, students from some foreign cultures where direct criticism is not offered may be offended and embarrassed. Third, students who are executives in existing companies, or professors in academia, are more

likely to be offended by someone publically criticizing their work. They've not had that happen to them in a long time.

These types of students shut down and blame the professors for "not understanding them." Use all means to discourage these students from taking the class.

Amount of Work

This class is a simulation of what startups and entrepreneurship are like in the real world, including chaos, uncertainty, impossible deadlines in insufficient time, and conflicting input.

We actually put another "black box" warning in the syllabus describing the amount of work. We want them to understand that the class requires a *phenomenal amount of work by students, especially compared to most other classes*. Projects are treated as real startups, so the workload will be *intense*.

Teams have reported up to 20 hours of work each per week. Getting out of the classroom is what the effort is about. If you can't commit the time to talk to customers, this class is not for you. Teams are expected to have completed **at least 10 in person or Skype interviews each week** focused in the Business Model Canvas area of emphasis for that week. **In the 2nd and 3rd week of class, we expect at least 15 interviews to get up to speed quickly on Customer Segments and Value Propositions.**

This means in total over the 10-week course, the students will have completed at least 100 interviews. For those with easy to access interview groups, e.g., consumer product/service businesses, more interviews will be expected.

If they can't commit the time to talk to customers, this class is not for them.

This class pushes many people past their comfort zone. But this is what startups are like (and the class is just a small part of the startup experience). The pace and the uncertainty pick up as the class proceeds.

Team Dynamics

Just as in a real startup, the demands and pressure of the class can create conflicts within teams. At times we have seen:

- Students who enroll for the course but have overcommitted to other curricular or extracurricular activities.
- Students who lose interest when they find out their initial idea is not supported by customer interest.
- Teams who can't agree on the level of effort to be made by each team member.
- Other team tensions.

It is the teaching team's responsibility to help, but not solve, the teams' problems. The teaching team can help them diagnose issues and facilitate solutions. At times, all it takes is a conversation about roles, expectations, and desired outcomes from the class. If the problem is

more serious, make sure you document all conversations.

Sharing Policy

We tell the students that one of the key elements of the Lean LaunchPad is that *we get smarter collectively*. We learn from each other—from other teams in class as well as from teams in previous classes.

This means that as part of the class, the teams will be sharing their Customer Discovery journey: the narrative of how their business model evolved as they got out of the building and the details of the customers they talked to. At times they will learn by seeing how previous classes solved the same type of problem by looking at their slides, notes, and blogs. They will also share their presentations and Business Model Canvas, blogs, and slides with their peers and the public.

Just to be clear, this doesn't mean sharing their intellectual property, but it does mean sharing details of what they learned outside the building.

Student/Instructor Success Criteria

The success of this curriculum is dependent on a consistent set of beliefs and culture for the students and instructors. The fundamental principles of the course are:

Process:

1. There are no facts inside your lab or building, so get the heck outside. (Which generally means “get off the campus” and stop talking to just your friends.)
2. Your idea/invention is not a company, it's one of the nine building blocks of the Business Model Canvas.
3. We use the Business Model Canvas to articulate our hypotheses.
4. We use Customer Development to test those hypotheses.
5. We use the Business Model Canvas to keep track of what we learned.
6. We use Agile Development to build our Minimal Viable Products so we can test our hypotheses
7. We expect that many of our initial hypotheses are wrong.
8. Iterations and pivots are the expectation.

Culture:

1. A mindset of hypothesis-testing, (running a series of experiments outside the building, determining the insights/results from those experiments, and articulating the next steps to be taken,) *not* execution.
2. Active participation by all team members.
3. All members are held accountable for team performance.
4. High-speed pace and tempo.
5. Teams average 100 customer contacts (not including focus groups and surveys).
6. Bring your sense of humor—without it, you will suffer.

11. Class Organization

Class Roadmap: Up to 8 Teams

(see appendix D for classes with more than 8 teams)

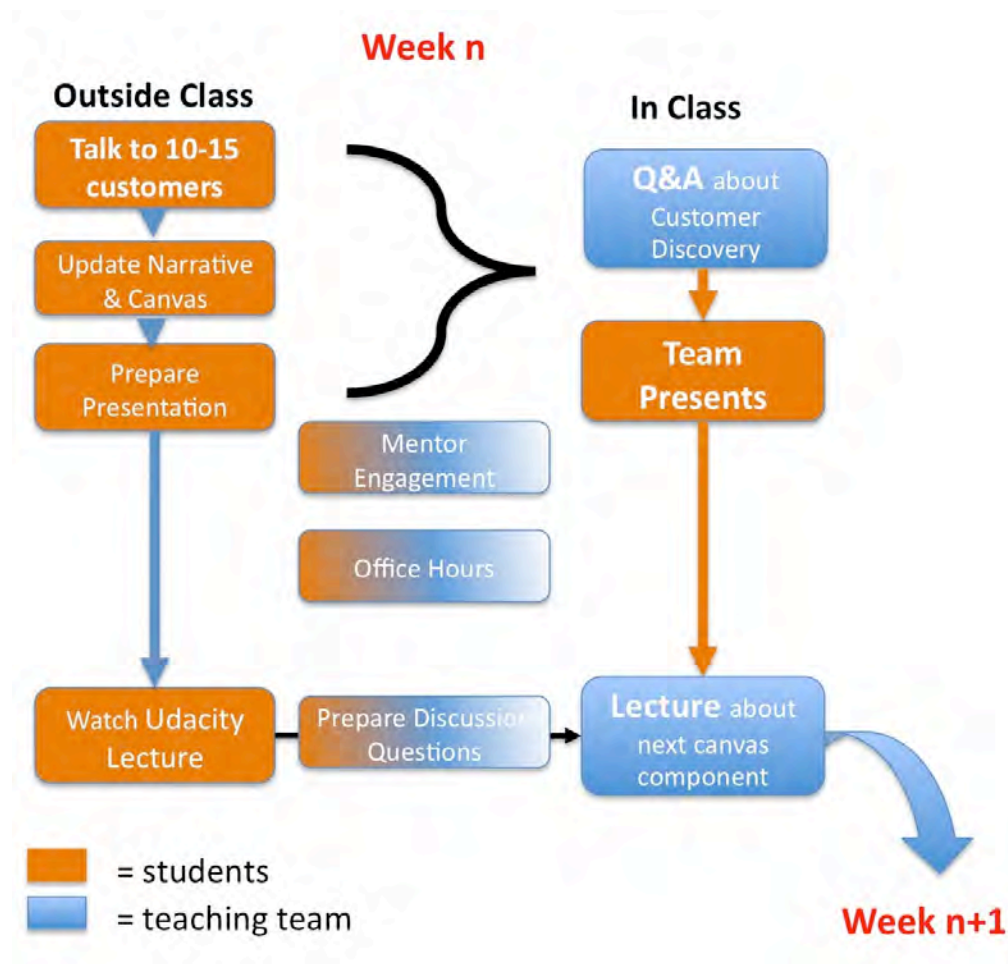


Figure 5. Organization of a canonical class of up to 8 teams.

Each week's class is organized around students' hypothesis-testing their business model assumptions *outside the classroom*. They accomplish this by:

- Assigned reading.
- Talking to 10-15 customers.
- Capturing their Customer Discovery progress in [LaunchPad Central](https://launchpadcentral.com/) and updating their Business Model Canvas.¹⁷
- Taking what they learned and assembling a 10-minute Lessons Learned presentation.
- Engaging with their mentors.

¹⁷ <https://launchpadcentral.com/>

- Attending mandatory office hours.
- Watching the course video lecture for the upcoming week and preparing questions for class discussion.
- Listening to comments and suggestions from the teaching team on the lessons learned.

In class Activities:

In addition to the students' work outside the building the following in-class activities happen every week:

- Class Q&A about what happened during the past week's Customer Discovery.
- Team presentations and instructor critiques.

Optional in-class exercises include:

1. Have each team submit questions about the course video lectures.
 - a. Answer the questions just before your in-class lecture.
2. Assign an open-ended discussion question each week based on the week's video lecture.
 - a. Have the students submit their brief answers [100 words or less] before class.
 - Examples of questions:

- *Value Propositions*: What aspect of defining the Value Proposition for your venture did you find most difficult? Why?
- *Customer segments*: Which of your venture's Customer Segments do you think will be the easiest to validate? Why?
- *Channels*: Select a channel of distribution and list 3 strong benefits and 3 strong challenges [or detriments]. Are you inclined to use that channel? Why?
- *Get/Keep/Grow*: Which of your venture's Customer Segments will tend to have the highest LTV? Why?
- *Revenue streams*: List 5 different possible revenue models for your venture. Which do you prefer? Why?
- *Key Partners*: What are the most important things you need from partners? Why?
- *Key Resources and Key Activities*: What is [or will be] your venture's core competency? Is it vital to providing the Value Proposition? Why?
- *Cost structure*: Identify 3 strategies for decreasing front-end fixed costs. What are the implications of each strategy?

Class Roadmap: Lecture Timing

The work teams will be presenting will be based on the Udacity lecture watched the prior week. The lecture watched just before class, and the in-class lecture, will cover the upcoming week's business model topic to prepare the teams for the discovery tasks for this week.

For example, when students arrive for Class 4, where they will be presenting on Channels, they are expected to have just watched the Customer Relationships lecture on Udacity. They should come prepared with any questions or comments about customer relations for in-class discussion (which will occur at the end of the team presentations), which will have a primary focus on Channels.

Each week, students are expected to have an updated version of their entire Business Model Canvas, but their Customer Discovery should focus especially on the topic discussed in the prior week's class.

The diagram below shows which business model block teams will present on Customer Discovery each week. **Course Video lecture viewing is one week ahead of this schedule.**

Teams are accountable for the following deliverables:

- Teams building a physical product must show a cost of bill of materials and a prototype, which could be a rough mock-up.
- Teams building a Web product need to build the site, create demand, and have customers using it. See <http://steveblank.com/2011/09/22/how-to-build-a-web-startup-lean-launchpad-edition/>.

We suggest teams carefully consider the effort their project will require before they start. They should not undertake a project they are not prepared to see through to completion.

12. Course Iterations: 10-Week, 12-Week, 5-Day

The balance of this instructor's guide provides specific and detailed guidance for offering the Lean LaunchPad Course in a quarter (10 weeks) or a semester over 12 weeks, with one 3-hour meeting per week. Each of these iterations has proven to be a very successful format, but the course material can be adapted and applied in various ways. In fact, in Section 18 we have included a syllabus for a 5-day short course that has been successfully taught at Columbia University and Caltech. For the sake of convenience and cogency, this document only describes the 10-week format; however, we encourage you to experiment and adopt it to suit your requirements.

10- and 12-Week Course Logistics

- Info sessions/mixers *prior* to the class for team formation.
- The class is offered once a week. Given the experiential nature of the class, it is sometimes listed as a "Lab."
- Each class is 3 hours long.
- There are eight weekly lectures, plus a 9th and if needed, a 10th week for the final team presentations.
- The class is *easily configurable from anywhere from 8-12 weeks* by allowing extra weeks after Lecture 3, Customer Segments, for the teams to further explore product/market fit.
- Three workshops are offered outside of normal class hours for Customer Discovery practice, details on customer acquisition and activation, and presentation skills training. If time permits, they may be offered as normal classes.

Week	Lecture	Topic
6 weeks prior	Info session/Mixer	Course Q/A, students form teams
4 weeks prior	Info session/Mixer	Course Q/A, students form teams, 1 st interviews
2 weeks prior	Info session/Mixer	Course Q/A, students form teams, final interviews
Week 1	Lecture 1	Intro, Business Models, Customer Development
Week 1	<i>Workshop 1</i>	<i>Customer Discovery practice for the real world</i>
Week 2	Lecture 2	Value Proposition
Week 3	Lecture 3	Customer Segments
Week 4	Lecture 4	Channels
Week 4	<i>Workshop 2</i>	<i>Customer Acquisition and Activation</i>
Week 5	Lecture 5	Customer Relationships, Get/Keep/Grow
Week 6	Lecture 6	Revenue Model
Week 7	Lecture 7	Partners
Week 8	Lecture 8	Resources and Costs
Week 8	<i>Workshop 3</i>	<i>Presentation Skills Training</i>
Week 9	Lessons Learned	Lessons Learned Presentations, Teams 1-6

13. Teaching Team Role and Tools

Team Teaching

In class, the instructor's role is to:

- Ensure students have watched the online lectures and answer questions about the online lecture subject matter.
- Critique the team presentations and offer guidance on Customer Discovery strategy and tactics.
- Grade the student presentations and share private comments with the rest of the teaching team within LaunchPad Central.

The screenshot displays the LaunchPad Central interface for a course titled "eLab - Summer 2013" at Princeton University. The main section is titled "Team Presentations". On the left, there is a list of presentations with dates and checkboxes. The presentation "Ecliptic Industries Presentation 06/25/2013" is selected. The main content area shows the presentation details, including a bar chart of "Average Team Presentation Scores" and a list of comments from students and faculty.

Team Presentations

Create New Presentations

Export All Inputs

08/07/2013 ☒

07/31/2013 ☒

07/24/2013 ☒

07/17/2013 ☒

07/10/2013 ☒

07/03/2013 ☒

06/26/2013 ☒

06/25/2013 ☒

COMET

Ecliptic Industries

FireStop

fitSense

Freestyle Montessori

greenROOTS

Kabongle

PHOG

PhotoRank

Princeton Beverage Company

06/19/2013 ☒

06/18/2013 ☒

06/15/2013 ☒

06/13/2013 ☒

06/11/2013 ☒

04/01/2013 ☒

Ecliptic Industries Presentation 06/25/2013

[Click here to view team presentation](#)

Peer Comments **Instructor-only Comments**

Average Team Presentation Scores

10
5
0

2013-06-13 2013-06-15 2013-06-19 2013-06-25 2013-07-03 2013-07-10 2013-07-17 2013-07-24 2013-07-31 2013-08-07

investment casting market could be the only market ... need to understand the dynamics and economics of this segment

Score: 5 **Update**

Fred Schaufeld 06/26/2013 **5**

With this product, it becomes much easier for OEMs and others to test small runs of products. More time sensitive foundries and pattern makers are probably better customers.

Andrea Kates 06/26/2013 **6**

I think they're working the process very well. Good insights. Clearer thinking. I think they need to understand the software plug and play better. That could be the value-a service

Cal Simmons 06/25/2013 **6**

Great point, Fred. Larger market potential. Not sure I understand who their eventual market may be. Think they need to explore that a bit more.

Jim Horntal, Faculty 06/26/2013 **5**

investment casting market could be the only market ... need to understand the dynamics and economics of this segment

Jim Horntal
Someone needs to mention their oversight on value to OEMs.
about 8 minutes ago

Andrea Kates
Yeah, their market size should be much bigger.
about 1 month ago

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Outside class, the instructor's role is to:

- Every week, review and comment on each team's Customer Discovery narrative.
- Every week, hold mandatory office hours, cycling each team at least twice in front of each member of the teaching team.

Best Practices

- Use critiques of specific teams to make a general point for the entire class.
- Don't offer students prescriptive advice. Instead, try to *teach students to see the patterns* without giving them answers.
- Adjuncts offering startup "war stories" should have a *specific* lesson for the class.
- Remember that everything you hear from students are hypotheses—guesses—that you want them to turn into facts. *"That's an interesting theory. What experiments can you quickly and inexpensively conduct to prove or disprove this theory?"*
- The goal is to get students to extract learning from the customer interactions.
- Numbers of customer visits matters. The larger the quantity, the greater the likelihood for meaningful "pattern recognition" to emerge, and the more extracted insights that can be gained as a result.

Lean Process

- **Focus on discovery + prototypes + Acquisition/activation + Validation** (Teams find it easy to do discovery, and have found it difficult to build prototypes and validate them).
- Make it clear from the beginning of class that prototypes and validation are required.
- Ensure someone on each team knows how to build prototypes, design and run ads, and make sales presentations.

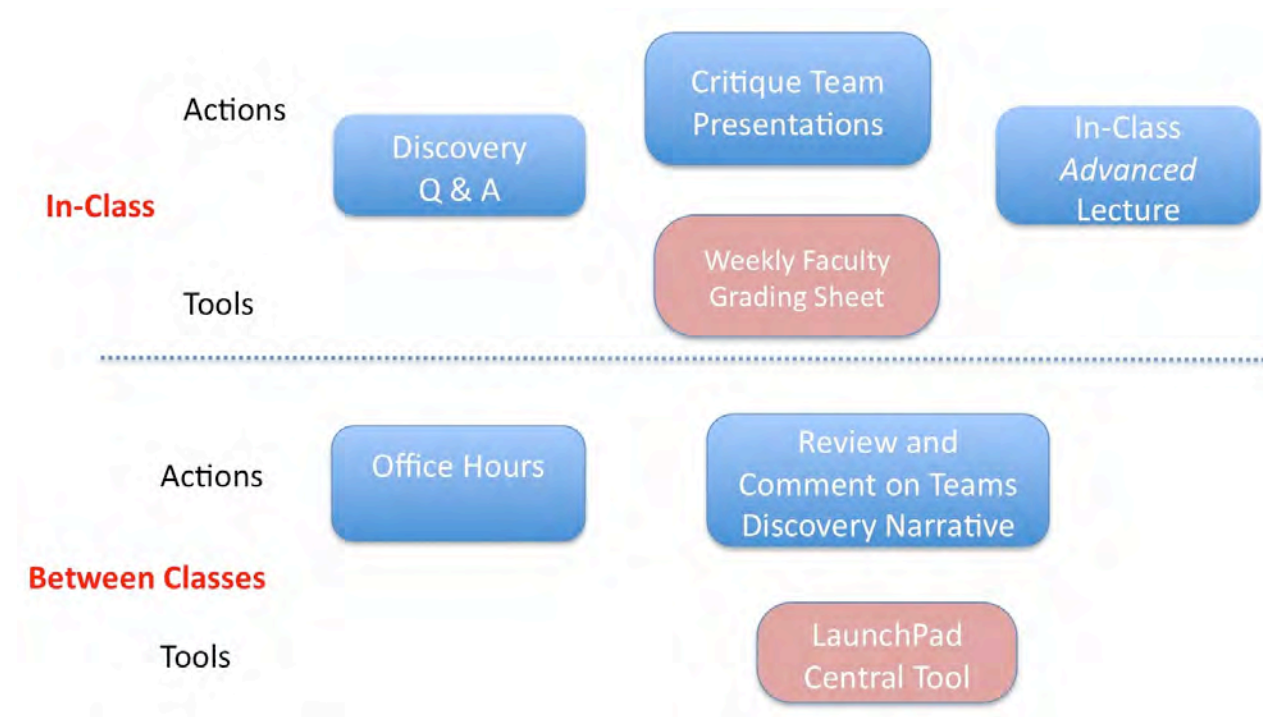


Figure 4. Teaching Team Responsibilities and Tools

Lectures/Flipped Classroom

Lectures take the students through each of the Business Model Canvas components while teaching them the basics of Customer Development. Lectures come in two parts; first, the basic lectures have been put online at Udacity to “flip the classroom” and are assigned as homework. Second, instructors follow up those basic lectures with more advanced material or domain-specific lectures.

However, we have found that unless you call students out on whether they watched the lectures *in the first class*, most students will *not* watch them.

Note that a flipped classroom still requires class discussion time to integrate the lectures. Reserve at least 15 minutes of instructor-led discussion at the beginning of the class. Reserve *another* 15 minutes at the end of each class for time to conduct the “looking ahead to next week” discussion, tying both lessons to the teams’ Canvases.



Figure 5. Udacity Online Lecture

LaunchPad Central

One of the problems with managing multiple teams is that it is difficult to keep track of their progress while maintaining a high level of instructor-to-team engagement. Without some way of keeping detailed track of all teams’ progress during the week, your in-class critiques would only be based on their 10-minute presentations.

To solve this problem, we insist that each team blog their Customer Discovery progress. We have them write a narrative each week of customers they’ve visited, hypotheses they’ve tested, results they’ve found, photos or videos of their meetings, and changes in their Business Model Canvas. We have them do it all online. Various online solutions can be cobbled together (an

online “mashup” of blogging tools), however we favor using an integrated special purpose-built tool called [LaunchPad Central](http://www.launchpadcentral.com).¹⁸

Using LaunchPad Central software, we have successfully managed numerous simultaneous classes, each with as many as 27 teams.

This platform allows the teaching team to comment on each team’s posts and follow their progress between class sessions. Having asynchronous access to the teams’ progress makes it easier for faculty teams and mentors to provide valuable input at whatever time of the day or night best serves their interests and availability.

This means that during the time between each class session, the teaching team needs to go online and *read and comment on each of the teams*. You must do this each week. Then, when each team presents, your comments and critiques will be informed by their progress.

The student teams have both in-class work and between-class assignments. In class, each team gives its “lessons learned” presentation summarizing its out-of-classroom Customer Discovery. When they are not presenting, all teams peer-review and comment on the other presenting teams using the LaunchPad Central “Presentations” feature.

¹⁸ <http://www.launchpadcentral.com>

LaunchPad Central

Leaderboard Teams +

Team Presentations

Create New Presentations

Export All Inputs

06/07/2013

07/31/2013

07/24/2013

07/17/2013

07/10/2013

07/03/2013

06/26/2013

06/25/2013

COMET

Ecliptic Industries

FireStop

FitSense

Freestyle Montessori

greenROOTS

Kabongie

PHOG

PhotoRadar

Princeton Beverage Company

06/19/2013

06/18/2013

06/15/2013

06/13/2013

06/11/2013

04/01/2013

Ecliptic Industries Presentation 06/25/2013

Click here to view team presentation

Peer Comments Instructor-only Comments

Average Team Presentation Scores

10

5

0

2013-06-13 2013-06-15 2013-06-19 2013-06-25 2013-07-03 2013-07-10 2013-07-17 2013-07-24 2013-07-31 2013-08-07

06/29/2013 7

To what extent is the software tied to the hardware...? Could you license it separately?

04/26/2013 7

I think everyone now has a clear picture of what you guys are doing.

04/24/2013 7

Your project is pretty technical, so the flow charts were perfect for breaking down what you're going to work on. Is your software advancing significantly or are you guys having trouble with it?

04/24/2013 7

Have you partnered with software manufacturers to add the software as an add-on to the main cad program.

06/26/2013 7

Nice customer workflow diagram. Even has pictures! Definitely helps the process your getting involved with and how you will contribute.

As we start developing MVP's, how far along is your software? Is that something you hope to have minimally functional this summer? Will you be able to demonstrate how well your software can break apart larger blueprints and how much it can handle when you combine them?

Also - be careful when you start talking to 3D printer companies and other potential partners. All the teams are under a lot of pressure to get out and talk to so many people every week. But we were given valuable advice this week to also be mindful of who NOT to talk to. Don't want to give a big, wealthy company an idea they can run away with and beat you to. Might be better to initially avoid some of the possible long-term partners (3D printer companies, CAD software vendors, etc.)

06/26/2013 7

Your presentation had some really great diagrams. I think the previous commenters had some great questions for you to focus on.

06/26/2013 7

Your hardware MVP isn't really a hardware MVP - that's just testing and it's part of development, not part of the product. I think that was the source of the confusion.

How do you put together the finished parts? Manually? Assembly lines? Varies by customer?

06/26/2013 5

Although you have a pretty technical focus, I think getting your value props and mission into a few concise, non-technical sentences will help both with later investors, with the teaching team, and simply helping you define it for yourself.

06/26/2013 7

I see that you have the durability of patterns is one of the customer pains. Isn't that one of the problems you have to overcome with the 3D printing hardware? Or is that a problem with wood molds or molds made on a CNC machine? Is there an existing epoxy for the 3D printers that would solve this problem or do you have to develop one?

In terms of precision, is that basically a function of the cost of the 3D printer? I remember seeing some Kickstarter about a low-cost printer that was as accurate as much more expensive machines. Possible partner? Maybe you could bundle the software/hardware for the foundries that want to make their molds in house... In order to make sure the printers are accurate enough.

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Outside the classroom, teams are expected to spend 10-15 hours a week talking to at least 10 new customers. Teams summarize their detailed findings in the form of a Customer Discovery narrative and an updated Business Model Canvas using the LaunchPad Central tool (described

later). Each student is required to watch the current week's on-line lecture and take the quizzes.

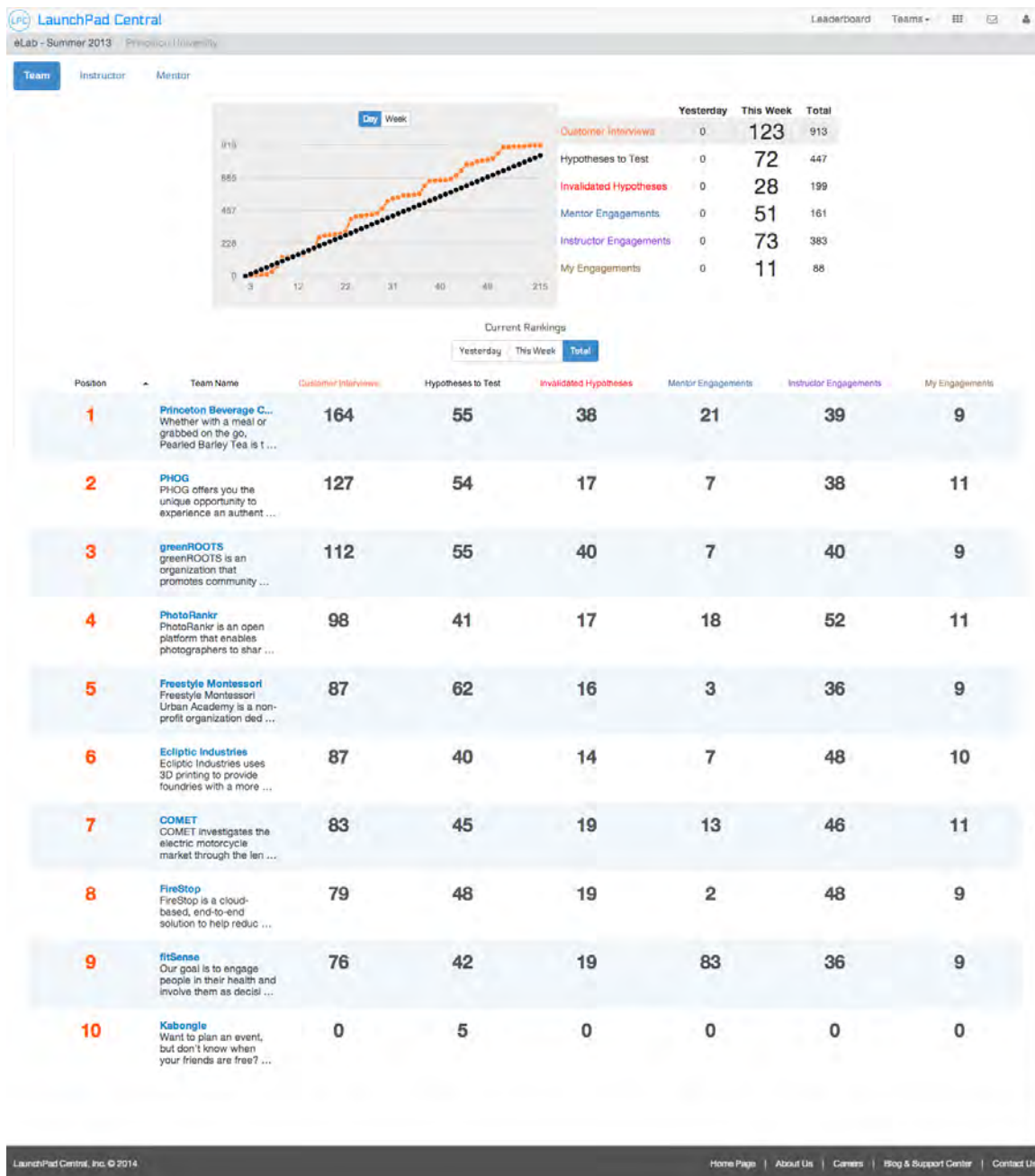


Figure 6. LaunchPad Central Main Admin Page

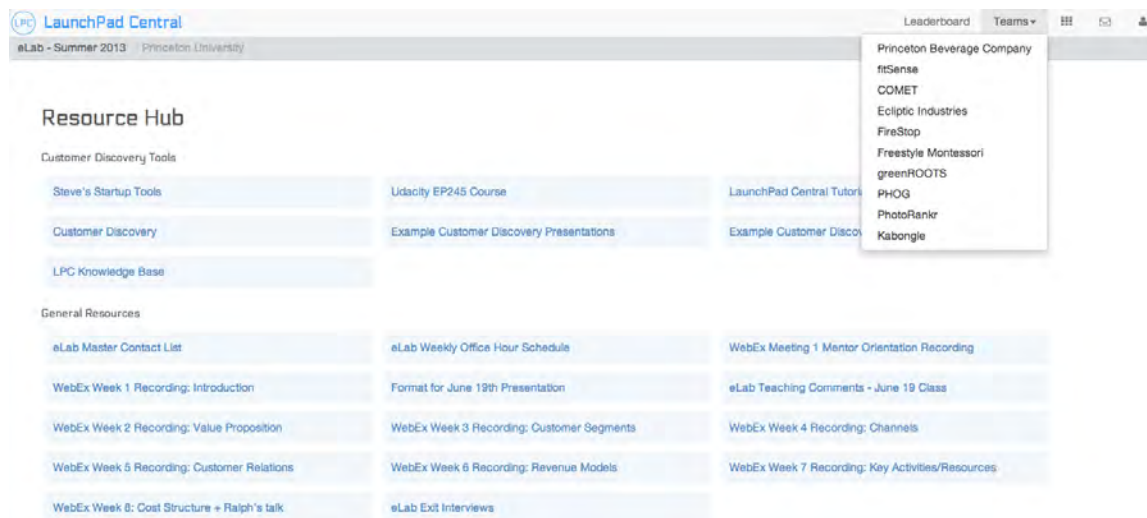


Figure 7. LaunchPad Central Team Admin Page

Office Hours

In addition to reviewing each of the teams' progress via the LaunchPad Central software, the teaching team has mandatory office hours for teams every week. Depending on the size of the teaching team and the number of student teams, you may cycle through one-third to all the teams each week. Office hours help to provide course corrections and uncover the inevitable team dynamics issues.

- Mandatory office hours for each team are vital to ensuring that teams don't get too far "off the reservation." Indications that an early intervention may be required include: no clue about what a Value Proposition OR Customer Segment looks like; impractical sense of what can be done in the semester in terms of creating an MVP or prototype, early warnings of team dysfunction, etc.
- We recommended that the office hours be scheduled at least two weeks in advance, so that the teaching team knows who they will be seeing with sufficient notice to be able to prepare specifically for that team's session.
- Each office hours session should be 20 minutes in length (3 meetings scheduled for each "Office Hour"). The office hours do not have to be done in person. Skype, Google Chat, Webex, or GoToMeeting are more than acceptable alternatives that can include the entire team (from more than one location) and the teaching team member. To the extent that your teaching team includes local entrepreneurs and investors, it may also be preferable for them to "dial-in" for these sessions at times that are convenient for them.
- Teams are expected to post a summary of the Office Hours on their LaunchPad Central narrative. These should be reviewed and commented on to be sure that you and the teams were actually in the same meeting! (You'd be surprised ...)

Textbooks

There are two required textbooks for this course:

- *The Startup Owner's Manual*: Blank and Dorf, 2012
- *Business Model Generation*: Osterwalder and Pigneur, 2010

Online lectures can be found here:

<http://www.udacity.com/overview/Course/nsflp/CourseRev/1>

Lecture slides can be found here: <http://www.slideshare.net/sblank/tagged/syllabus>

Student presentation examples: <http://www.slideshare.net/sblank/>

Grading

The course is team-based and 85% of the grade will come from evaluation of team progress and the final “lessons learned” presentation. The grading criteria are as follows:

15% **Individual participation:** consists of four parts: a) quality of the written feedback of students’ peer-to-peer comments provided throughout the semester, during class presentations in LaunchPad Central software, b) attendance at each class, c) timely completion of ALL course videos viewed (those that fall far behind will be asked to **leave the class** and return when they are caught up) and d) a grade from their fellow team members at the end of the course (in the form of a private email sent by each team member to the teaching team assessing the relative participation of other team members’ performance and productivity throughout the semester).

40% **Out-of-the-building Customer Discovery progress:** as measured *each week* by a) quality of weekly blog write-ups and b) canvas updates and presentations. All team members are expected to perform interviews and contribute to the weekly blog entries.

20% **The teams’ weekly “lessons learned” presentation:** Team members must:
1) State how many interviews were conducted that week (include on cover slide).
2) Present detail on what the team did that week, including changes to canvas.
3) Follow the assigned topics to be covered each week as outlined in the syllabus.

Team members may be called on randomly to present their team’s findings that week.

25% **The teams’ final Lessons Learned presentation and video.**

Investment Readiness Level (IRL)

Teams will naturally want to know what the instructors think about the business opportunity as it stands on the Lessons Learned day. We have found that the concept of an Investment Readiness Level (IRL) both self-reported and reported out by the Instructor Team is a valuable metric. The IRL is a tool we’ve abstracted from the concept of a Technology Readiness Level (TRL), commonly used by the Department of Defense and the NASA.

A description of the IRL can found in the blog post [here](#)¹⁹ and the video [here](#)²⁰.

¹⁹ <http://steveblank.com/2013/11/25/its-time-to-play-moneyball-the-investment-readiness-level/>

²⁰ <http://steveblank.com/2013/12/21/moneyball-and-the-investment-readiness-level/>

Note: the IRL is a very powerful tool and has the potential for abuse and/or confusion. Only use it if you are comfortable with the highly-charged atmosphere in which it may position your teaching team.

Guidelines for Team Presentations

Each team is expected to speak to 10 or more customers every week. In every cohort, there is almost always one team that, in either week one or week two, has only interviewed 4 or 5 customers. When that happens, we ask them to sit down and won't let them present. The reasoning is that they could not have learned very much, and we don't want them to waste the class's time presenting "faith-based" slides in an "evidence-based" class. The 10-minute weekly team presentations are summaries of each team's findings during that week.

Each week, teams are expected to have an updated version of their Business Model Canvas. **Their Customer Discovery should focus on the topic introduced at the end of the previous class.** This is true regardless of whether they've pivoted and are re-exploring topics from earlier lectures. In the case of a pivot (which can be indicative of successful Customer Discovery), teams have to work doubly hard to cover earlier class topics, update and amend their canvas assumptions as required, and touch on current class topics in their weekly presentation.

You want all team members to be familiar with their entire presentation. One way of doing so is to let the teams decide which team member presents—half the time. The other half of the time, the teaching team selects who presents.

Weekly Slide Presentation Format

Slide 1 Cover slide

- Team name, team members/roles
- Number of customers spoken to this week
- Total number spoken to
- Three sentence description what the team does and **why I should care**
- Market Size (TAM, SAM, TM, and did it change this week) – exported from LaunchPad Central

Slide 2 Updated Business Model Canvas with week-to-week **changes shown in red** (exported from LaunchPad Central)

Multi-sided markets shown in different colors

Slide 3-n What did you learn about “topic of the day” (Canvas block x)?

Hypothesis: Here’s What we Thought

Experiments: Here’s What we Did

Results: Here’s What we Found

Action: Here’s What we Are Going to Do Next

Slide 4 Diagram (as appropriate) what you learned this week (e.g., customer workflow, payment flows, distribution channel pictorial)

Feedback from the teaching team during oral presentations is where the most learning occurs. Due to the pace and tempo of the course, participants must be held accountable for the material for each specific class.

14. Instructor Pre-Course Preparation

Objective: Have a basic understanding of the Lean LaunchPad class:

- a. Business Model Canvas
- b. Customer Development

Read the *Harvard Business Review* Article:

<https://archive.harvardbusiness.org/cla/web/pl/product.seam?c=25903&i=25905&cs=f85785d3580feb87e2bce1535af10c2f>

Review the Course Video Lectures:

- Online Lectures: <https://www.udacity.com/course/ep245>
You can download the videos here: <https://www.udacity.com/wiki/ep245/downloads>
- Pay close attention to the chapter "Secret Notes for Instructors/Coaches" at the end

Review the "Teachable Moments" Videos:

<https://vimeo.com/groups/190717>

Review the "How to do Customer Discovery" Videos:

Pre-Planning Customer Discovery

- [Pre-Planning Pt. 1 \(4:55\)](#)²¹
- [Pre-Planning Pt. 2 \(3:25\)](#)²²
- [Pre-Planning Pt. 3 \(1:29\)](#)²³

Customer Discovery Interviews

- [Interviews Pt. 1 \(5:40\)](#)²⁴
- [Interviews Pt. 2 \(3:49\)](#)²⁵
- [Asking the Right Question \(2:37\)](#)²⁶

Outside the Building

- [Death by Demo 1 \(2:18\)](#)²⁷
- [Death by Demo 2 \(1:45\)](#)²⁸
- [Assuming You Know what the customer wants \(1:56\)](#)²⁹
- [Understanding the Customer Problem \(the wrong way\) \(1:42\)](#)³⁰

²¹ <http://vimeo.com/groups/204136/videos/75308828>

²² <http://vimeo.com/groups/204136/videos/75184102>

²³ <http://vimeo.com/groups/204136/videos/75603393>

²⁴ <http://vimeo.com/groups/204136/videos/75535337>

²⁵ <http://vimeo.com/groups/204136/videos/75536337>

²⁶ <http://vimeo.com/groups/204136/videos/76176674>

²⁷ <http://vimeo.com/groups/204136/videos/76390080>

²⁸ <http://vimeo.com/groups/204136/videos/76172223>

²⁹ <http://vimeo.com/groups/204136/videos/76175907>

³⁰ <http://vimeo.com/groups/204136/videos/76171146>

- [Understanding the Problem \(the right way\) \(3:22\)](#)³¹
- [Customers Lie \(2:37\)](#)³²
- [The Distracted Customer \(3:12\)](#)³³
- [Engaging the Customer \(3:37\)](#)³⁴
- [Customer Empathy \(2:25\)](#)³⁵
- [The User, the Buyer & the Saboteur \(2:24\)](#)³⁶
- [Multi-Person Interview \(2:03\)](#)³⁷
- [B-to-B to C \(2:15\)](#)³⁸
- [Existing vs. New Markets \(5:29\)](#)³⁹
- [Interviews in Public \(2:11\)](#)⁴⁰

Back in the Building

- [Extracting Insight from Data \(2:59\)](#)⁴¹
- [Getting the MVP Right \(3:34\)](#)⁴²
- [Pay Attention to Outliers \(2:16\)](#)⁴³
- [The "Other 85%" \(2:32\)](#)⁴⁴

Get Hands-on with LaunchPad Central

Instructor Reading Material:

Textbooks:

Business Model Generation (BMG) Osterwalder and Pigneur

The Startup Owner's Manual (SOM) Blank and Dorf

Optional: *The Four Steps to the Epiphany*, Blank

Download the Value Proposition Canvas here:

http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf

Read about the Value Proposition canvas here:

<http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html>

-
- ³¹ <http://vimeo.com/groups/204136/videos/76173388>
 - ³² <http://vimeo.com/groups/204136/videos/76176674>
 - ³³ <http://vimeo.com/groups/204136/videos/73715398>
 - ³⁴ <http://vimeo.com/groups/204136/videos/76174533>
 - ³⁵ <http://vimeo.com/groups/204136/videos/73714461>
 - ³⁶ <http://vimeo.com/groups/204136/videos/73673203>
 - ³⁷ <http://vimeo.com/groups/204136/videos/76175265>
 - ³⁸ <http://vimeo.com/groups/204136/videos/73674284>
 - ³⁹ <http://vimeo.com/groups/204136/videos/73674022>
 - ⁴⁰ <http://vimeo.com/groups/204136/videos/73711818>
 - ⁴¹ <http://vimeo.com/groups/204136/videos/76177502>
 - ⁴² <http://vimeo.com/groups/204136/videos/73713162>
 - ⁴³ <http://vimeo.com/groups/204136/videos/76177672>
 - ⁴⁴ <http://vimeo.com/groups/204136/videos/74252460>

Review the lectures here: <http://www.slideshare.net/sblank/tagged/syllabus/2>

Read "Customer Development Manifesto" (Chapter 2, *SOM*)

Look at previous student presentations: <http://www.slideshare.net/sblank>

Become familiar with the Startup Tools page: <http://steveblank.com/tools-and-blogs-for-entrepreneurs/>

Review the Lean LaunchPad class background:

- <http://steveblank.com/category/lean-launchpad/>
- <http://steveblank.com/2010/12/07/the-lean-launchpad---teaching-entrepreneurship-as-a-management-science/>
- <http://steveblank.com/2011/05/10/the-lean-launchpad-at-stanford---the-final-presentations/>
- <http://steveblank.com/2012/02/16/who-dares-wins-the-2nd-annual-international-business-model-competition/>

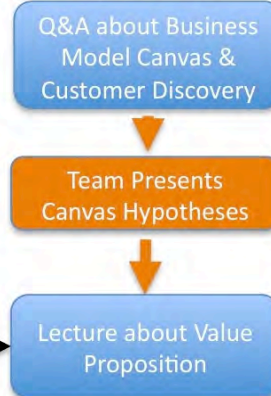
15. Detailed Class Curriculum

Student Assignment: Pre-Class Preparation

Before Jan 23rd Class



Class 1 – Jan 23rd In Class



Prepare Discussion Questions

■ = students
■ = teaching team

For each week of the class we'll provide a diagram (above) detailing that week's specific readings, Course video lecture, "out of the building" customer development work, and the primary Business Model Canvas area of focus for teams for that particular week.

Learning Objectives

Students should come to class able to answer the following questions:

- What's the difference between search and execution?
- What is a business model versus a business plan?
- What is the Business Model Canvas?
- What are the 9 components of the Business Model Canvas?
- What is a hypothesis?
- What do we mean by "experiments"?
- What is Customer Development?
- What are the key tenets of Customer Development?

Why?

These are the fundamental principles of the course. Having the students prepare on their own time allows us to go into full immersion on day one during the first lecture.

How?

- Assign readings before the class starts. Inform students that they are required to know these concepts.
- To test their knowledge, we have each team prepare the first iteration of their Business Model Canvas prior to the first class (see section 10 for description and figures).
- Teams will present their Canvas as their introduction to their cohort. But more importantly, it will allow the teaching team to assess how adequately they prepared for the course.

Reading/ Viewing Assignment for Day 1 of the Class

- Watch [Course video lessons](#) 1, 1.5a, 1.5b, and 2: What We Now Know and Business Models and Customer Development & Value Proposition.
- Submit your discussion question assignment in advance of class.
- Read *BMG* pp. 14-49: The 9 Building Blocks of the Canvas.
- Read *SOM* pp. 1-75: Intro to Customer Development and Customer Discovery, Market Size; pp. 472: Market Size; pp. 112-122 & 457-458: Market Type, and pp. 123-124: Competitors.
- Review Startup Tools: <http://steveblank.com/tools-and-blogs-for-entrepreneurs/>
- Skim Course Strategy: <http://steveblank.com/category/lean-launchpad/>

Skim prior team presentations: <http://www.slideshare.net/sblank>. **NOTE to Instructors: pick your favorite subset of slides for your students.**

Class 1 Presentation: *Business Model*

Prepare a presentation to present your business model to the class:

Slide 1: Title Slide.

Slide 2: Business Model Canvas.

Slide 3: Identify your market type.

Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3).

Slide 5: Identify your competitors.

Slide 6: Propose experiments to test your Value Proposition and Customer Segment of your business model.

What constitutes a pass/fail signal for each test?

Develop a customer/partner contact list.

Assignment Objective

- We don't expect teams to get the Canvas *right*. We just want them thinking hard about what it means. They will be living with their Canvas for the next few months.
- Get the teams accustomed to a cover slide that provides us with a 1-page summary of who they are, the number of customers talked to that week, and what their team does.
- NOTE: This page is the same as the "PROFILE PAGE" on LaunchPad Central, and serves the purpose every week of introducing the team to any visitors that may be present, and also reminding the teaching team who they are (hard to believe, but it is hard to keep track once the chaos begins in earnest...

MENTORS: Hold a Mentor Briefing

We suggest holding a mentor briefing an hour before the class starts. Go over the Mentor Handbook (see Section 19) and invite the mentors to the first class. It is also important to include mentor training for LaunchPad Central. It is the umbilical cord that connects the teams

to their mentor, and getting mentors comfortable and up-to-speed is vital to establishing good mentor dynamics from the outset.

If your schedule permits, it would be **ideal** to have a mini-session prior to the first class to train the students on LaunchPad Central, and to give them the opportunity to input their preliminary canvas into the template. It would also afford the class access to the Peer Input capabilities for the first week. If this proves impractical, then holding the training immediately after the first class is critical. In this situation, students should be instructed to take notes and make comments for each team in a Word document that they can subsequently cut-and-paste into their LaunchPad Central dashboard.

Team Cover Slide for Weekly Presentations

The slide features a central illustration of a person in a white shirt and yellow-striped shorts performing a movement analysis. A Kinect sensor is positioned above them, projecting a yellow dotted line onto a large screen. The screen displays a graph with a red line and a green line, a percentage of 85%, and two diagrams of the person's movement. The background is a light blue gradient.

Team Name

Bi^oniks

What your team does and why should we care

Delivering research-grade movement analysis to health professionals and their patients for speedy rehabilitation

Team:
Nick Jennings
Ayesha Mascarenhas
Mark Sena









Who's on the team

Number of customers talked to this week. Total number to date

Interview this week: 12
Total # of Interviews: 101

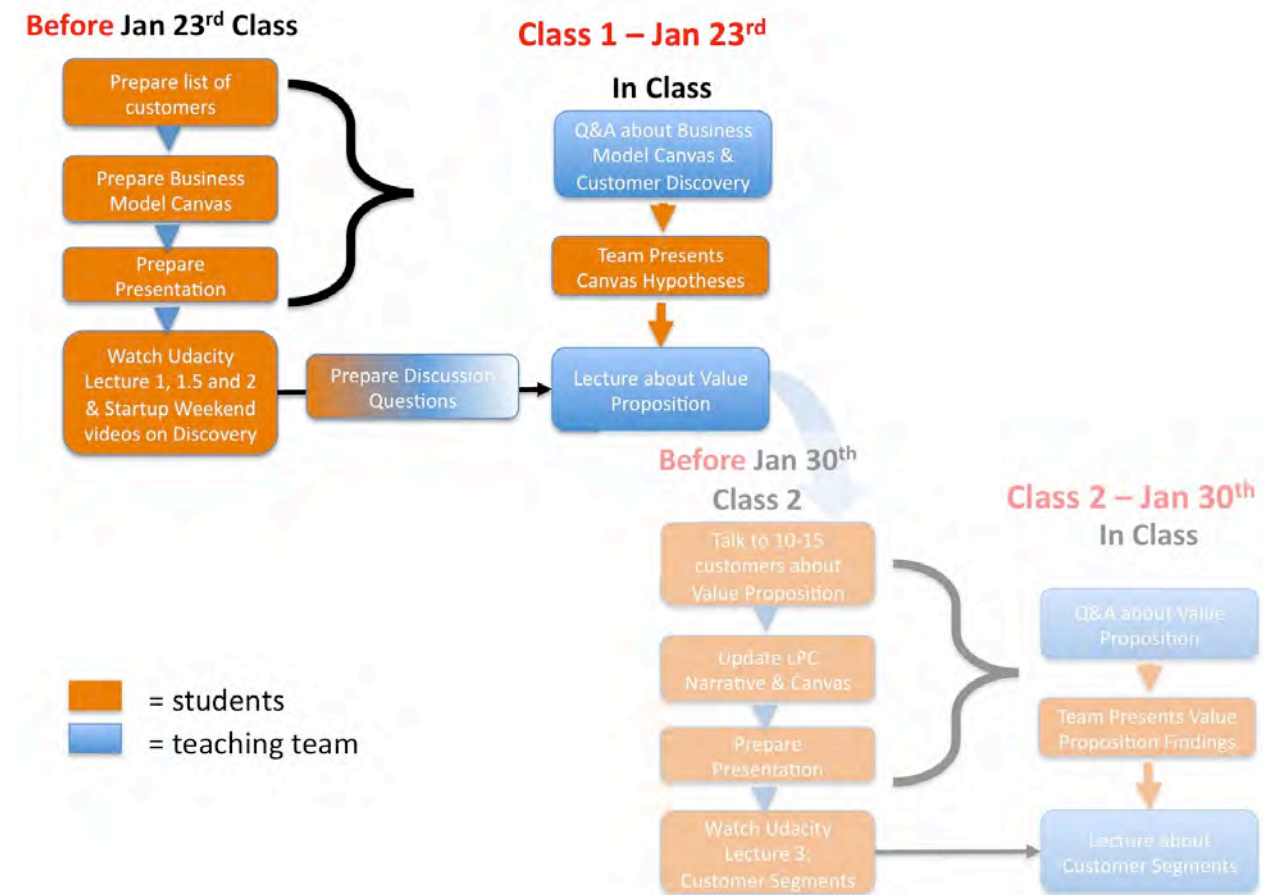
patient / client

therapist / trainer

<p>Key Partners </p> <p>8</p> <p>Who are our Key Partners?</p>	<p>Key Activities </p> <p>6</p> <p>What Key Activities do our Value Propositions require?</p>	<p>Value Propositions </p> <p>1</p> <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>	<p>Customer Relationships </p> <p>4</p> <p>How will we Get, Keep and Grow customers?</p>	<p>Customer Segments </p> <p>2</p> <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>
<p>Key Resources </p> <p>7</p> <p>What Key Resources (suppliers, etc.) do our Value Propositions require?</p>		<p>Channels </p> <p>3</p> <p>Through which Channels do our Customer Segments want to be reached?</p>		
<p>Cost Structure</p> <p>What are the most important costs in our business model?</p> <p>9</p>		<p>Revenue Streams </p> <p>5</p> <p>What is the revenue model? What are the pricing tactics? For what value are our customers willing to pay?</p>		

Class 1

Class 1: Intro & Business Models and Customer Development



Teaching Objective: *Business Models and Customer Development*

- Assess each team's level of preparation and understanding.
- Introduce the Business Model Canvas development principles.
- "Shock and Awe" immersion in the "present/critique" teaching method.
- Fast-paced, in-depth instructor critique and analysis of each team's initial business models is critical during this session to emphasize the level of preparation necessary by the students.
- Students should understand that there is no such thing as "spare time" and they need to get out of the building and be talking to customers every day!

Optional if time permits: Show the Customer Discovery videos in class and discuss. And/or do Customer development role-playing; take two teams and have them role-play discovery. Critique and correct the process.

Why? These are the fundamental principles of the course.

The format of all the classes will be:

Class 1

- Teams present in front of their peers.
- Teaching team critiques each team.
- Instructors lecture on a component of the Business Model Canvas.
- Students offer peer-to-peer input on all other team presentations as they are given.
 - Peer input is an integral component of the grading of each student's performance.
 - Peer input is the questions and insights students would offer in a traditional classroom discussion of that "case".
 - In an 8-team cohort, each student will be transcribing their insights and comments for 56 "cases" (8 weeks x 7 teams).

Having the students present on day one gives them full-immersion on day one, first lecture. It also gives the teaching team the ability to provide remedial help for any team after the first day of class.

How? Have teams start by presenting their Business Model Canvas as their introduction to the class.

- This is the essence of the "flipped classroom." Some students will feel uncomfortable presenting before they have had a chance to "listen." But activating them as leading the learning process is *key* and they should be held accountable from day one.
- The teaching team should immediately start offering critiques of the models and the underlying hypothesis being presented. An interactive dialogue is encouraged. Great examples are praised as much as weak efforts excoriated.
- These first critiques should focus on the Value Propositions, Customer Segments, and product-market fit. Other concepts that may make sense to discuss include customer archetypes, channels, customer relations, and revenue models. But the key observation is the link between Customer Segments and Value Propositions.
- The initial Business Model canvases are often deeply flawed. These initial errors give the teaching team the opportunity to help the entire class understand how the canvas should be used.
- The fact that these initial canvases are flawed is not the point. They create the opportunity to teach by example!
- Don't go deep on one team. It's the sum of the comments across all of the teams that is important.
- When you see a common error, announce, "This is a big idea. It's one you will all encounter."
- The teaching team [including the TA] should score each team and offer candid initial impressions of each team's business model, with emphasis on the most vulnerable/suspect hypothesis—driving the team to think about initial experiments they can run and research they can do to pass/fail those essential canvas building blocks as early in the process as possible. Teaching Team comments are confidential on LaunchPad Central, and are NOT shared with the students.

Class 1

- Have the students grade each presentation and provide helpful feedback on the LaunchPad Central team comment section in the “Presentations” tab. The peer comments are shared with each other, and are “public” within the cohort.

Class and Teaching Team Introduction.

- Start by saying the students are or will become domain experts in their fields. We will not be questioning their expertise.
- But the instructors are the domain experts in building companies. We have a model that works, is intensive, and will make all of them work extremely hard. It’s nothing personal.

Key Points

- The importance of evidence-based entrepreneurship: The class is all about learning the skills to move from a “faith-based” business plan to an evidence-based business model, which means “getting out of the building” and recording their learnings and insights in LaunchPad Central **every day!**
- The importance of time management: The program is intense and fast-paced.
- The importance of community: Every class member must actively comment on the other teams in the cohort, learning from and sharing with the collective wisdom and experience of their peers.
- The importance of technology: A team’s technology is just ONE of the many critical pieces necessary to build a company. It may enable the Value Proposition and possibly be a Key Resource, but customers do not care about your technology, they are trying to solve a problem.

Discuss the Business Model Canvas and Customer Development Reading

- Intro of the Business Model Canvas and customer development.
- Definition of hypotheses.
- Definition of minimum feature set.
- Description of experiments.
- Definition of “getting out of the building” (getting off the campus is key unless the product/service is for students or faculty—which they almost never are). Prohibiting interviews with students and faculty is the best way to get teams out into the real world, and away from the hallucinogenic world of academia; too many teams waste too much time taking this “easy way out” and get interviews that have limited to no value.
- Definition of market type (existing, re-segmented, new, or clone).
- Definition of market size.
- How do you determine whether a business model is worth doing?

Class 1

In Part 3 of the lecture, pick any one of the final team presentations you feel most comfortable with from <http://www.slideshare.net/sblank>. **NOTE to Instructors: pick your favorite subset of slides for your students.**

Class 1: *Business Model* Presentation

- Slide 1: Title Slide.
- Slide 2: Business Model Canvas.
- Slide 3: Identify Market type.
- Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3).
- Slide 5: Identify Competitors.
- Slide 6: Propose experiments to test Value Propositions, Customer Segments, channel, and revenue model of the team's business model.
- What constitutes a pass/fail signal for each test?

Team Presentation Objectives: *Business Model*

Students should understand the concepts of:

- 9 parts of a Business Model.
- Hypotheses versus facts.
- Getting out of the building.
- Web/mobile versus physical.
- Problem/solution.
- **Product-market fit.**
- Hypotheses/experiment design/test/insight.
- Iteration versus pivot.

Focus your critique on the right half of the canvas.

- Students will understand the depth of hypotheses-testing their business model will require.
- Students should understand the relationship between canvas components, and that meaningful changes in one segment almost always reverberate throughout the canvas, including market size and possibly market type:
 - Value Proposition/Customer Segments – product market fit.
 - Customer relationships – get/keep/grow.
 - Revenue/costs – making money.

Many startups spend years attacking a small market. Having them think about size of the opportunity early helps them keep asking, "How big can this really be? Is it worth doing?"

See key lecture concept diagrams below.

Class 1

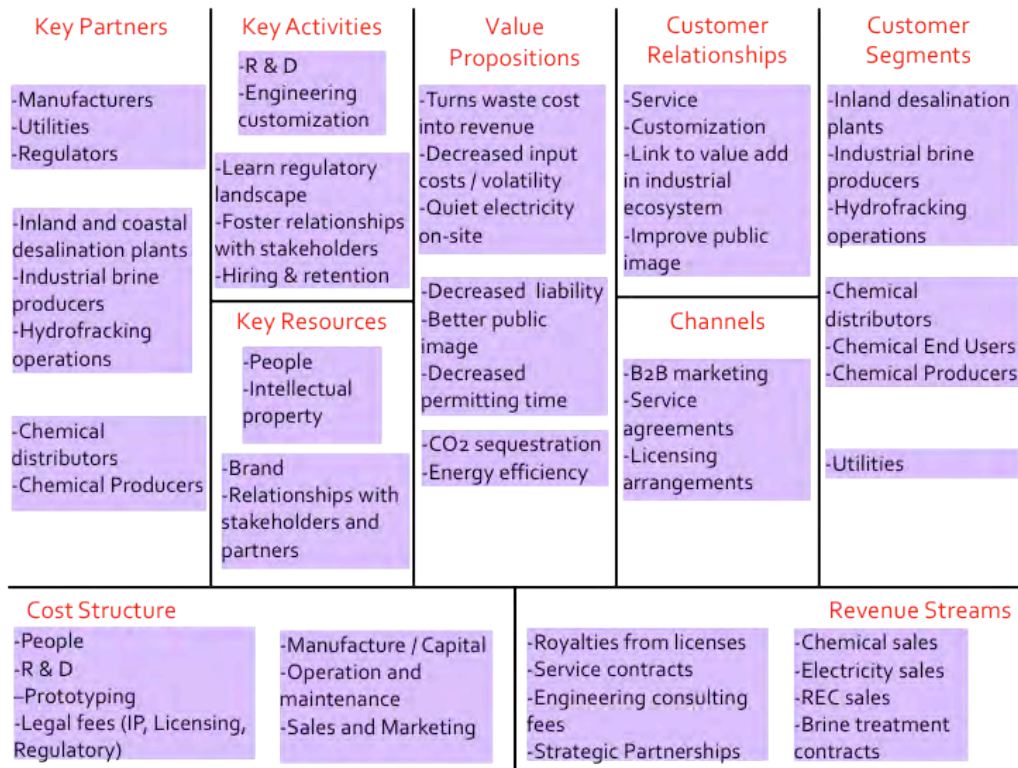


Figure 8. Typical Class 1 Student Business Model Canvas

Common Student Errors in the *Business Model Presentation*

- More Customer Segments than a Fortune 100 company.
- "End users" as a Customer Segment.
- Not understanding any relevant demographic detail about their customers, unable to think clearly about what a customer archetype could be.
- Value Propositions don't match Customer Segments, which don't match channel or revenue model.
- No notion of pain/gains/jobs to be done in either Customer Segments or Value Propositions.
- No notion that "Customer Segment + Value Proposition" = product-market fit.
- Confusing product features and specifications with Value Propositions.
- Not understanding Customer Relationships as the tactics and strategies to "Get, Keep and Grow" customers.
- No understanding of what a channel is.
- Fantasy revenue model.
- Business Model Canvas looks like a business plan crammed on one page.
- Thinking that they're in the class to "execute" their plan, not search for a repeatable, scalable business model.

See key lecture concept diagrams below.

Class 1

Advanced Lecture: *Value Proposition*

- Assume the students have watched the Value Proposition lecture before class.
- The advanced lecture is **your** opportunity to **add supplemental information** to the core Course video lecture.
- To the extent your cohort has been selected with an industry focus, you can complement this structure with a series of industry-specific lectures (e.g., hardware, life sciences).
- You can cite specific examples from teams in your cohort, including, in later weeks, how teams have pivoted in certain areas over time (e.g., “we used to think our channel was gas stations, but then we learned it was convenience stores, and later found out that only 24-hour convenience stores were interested ...”).
- You can offer more specifics about the Value Proposition part of the canvas.
- Present and explain Osterwalder’s Value Proposition Canvas and describe its relationship with the overall canvas:
<http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html>.
- And/or always examine in some detail a multi-sided market example using the canvas. Two good examples are Google and a medical device company, see:
<http://www.slideshare.net/sblank/mammoptics-e245-final-presentation-7879356>.
- In this lecture or next week’s, leave time to introduce the idea that there are elements outside the canvas that are also critical for teams to keep an eye on. These would include:
 - Competitive analysis (they need to spend at least an hour searching the web)
 - External macroeconomic forces (industry, key trends, market, macro)see BMG pp. 200-211

LaunchPad Central *Training Immediately Following Class 1*

If it is impractical to hold a pre-class training session as mentioned above, this is vital:

- Mandatory hands-on team training *by the TA* on key features.
- Creating team profiles and opportunity descriptions/assessments, including preliminary market type and market size assumptions.
- Creating/updating discovery narrative posts.
- Creating/updating preliminary Business Model Canvas.
- Posting their initial Customer Segment and Value Propositions first, which allows teams to “color-code” linkages as they define them.
- Learning how to post audio recordings, videos, pictures in interviews, and relevant .xls and .doc files.
- Learning how to export slides, canvas elements, scorecards, and contacts.
- Learning how to make an “Ask” of mentors, faculty, TA, or other teams.

Class 1

Student Reading on Jan 24th (the day after class 1) to prepare for Class 2 *Value Proposition*

- Read *BMG*, pp. 77-107: Multisided & Freemium Markets; pp. 127-133: Customer Insights
- Read Osterwalder Value Proposition Canvas at <http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html> and <http://businessmodelalchemist.com/blog/2012/09/test-your-value-proposition-supercharge-lean-startup-and-custdev-principles.html>
- Read SOM, pp. 76-84: Value Proposition and MVP; pp. 189-202: Getting out of the Building/Experiments/Contacts; pp. 474: Product Features Checklist; and pp. 487: Contacts Checklist
- Watch Mark Pincus at <http://ecorner.stanford.edu/authorMaterialInfo.html?mid=2313>

Viewing on Jan 24th: Customer Discovery Tips

As soon as they leave class, have the students watch videos on how to do Customer Discovery. These videos will help them understand how to prepare and conduct customer visits.

- Watch: Customer Discovery Checklist: <http://startupweekend.wistia.com/projects/zt618zz0r7>
- Watch: How to do Customer Discovery: <http://startupweekend.wistia.com/projects/8ss0rm03pj>

Class 2 Presentation: *Value Proposition*

Students should talk to at least 10 (target should be 15) potential customers to gain insights and to generate findings.

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors (note: LaunchPad Central will automatically highlight pivots with red cross-out text and indicate additions with a bold red star before the entry).
- Slide 3: **Value Proposition Canvas**, see: http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf
 - What are the Products/Services, Pain Relievers, Gain Creators?
 - What's the MVP you'll build and test? Why?
- Slide 4: What were your experiments to test Value Proposition?
- Slide 5 - n: What did you learn about your Value Proposition from talking to your first customers?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did

Class 1

- Results: Here's What we Found
- Action: Here's What we Are Going to Do Next

Throughout the week, students should continuously post Customer Discovery narratives and mentor and teaching team interactions (office visits, Skype calls, and emails) on LaunchPad Central. Other team members should review and comment on posts made by their fellow team members if they can enhance the presentation, or cite areas of disagreement that need further clarity and investigation.

Viewing on Jan 29th: *Customer Segments*

Watch Course video Lesson 3: *Customer Segments*

The *day before the next class meets*, students should be watching the lecture topic for their next week's Customer Discovery activity.

This will prepare them for the advanced lecture you'll be giving at the end of the class on that topic.

Assume the students have watched the lecture before class. We will remind you of this important feedback loop every week in the week-by-week notations that follow.

Class 1

Classes 1 through 8: Teaching Assistant Activities

Before Each Class

Communicate with students:

- Topic to be addressed for class
- Presentation assignment
- When presentations should be uploaded to Dropbox
- Team presentation order
- Allotted time for presentation
- Location of presentation

Preflight logistics: projectors, screens, Wi-Fi, break rooms, etc.

- Collect student slides beforehand so no individual computer setup is necessary, then load them on a single presentation computer
- *Email team presentation order (teaching team selects half the time, teams pick the other half)*
- *Keep the clock on team presentation time – announce 1 minute to go*
- *Capture the verbal teaching team critiques (“Teaching Moments”) in a separate Google Doc – this should be shared with all the teams*

Mentor Management

- Coordinate with teaching team to manage the weekly mentor email update mailing. Include a weekly slide deck of what they can expect in the week ahead, gleaned from this Educator’s Guide. The basic outline for these decks is available from LaunchPad Central. The mentors are your “deputies” and keeping them up to speed is your best defense against excessive train wrecks. To do that, the mentors have to keep up (ideally ahead) in the readings and the Course video lectures as well.
- Repeat for all classes.

During Each Class

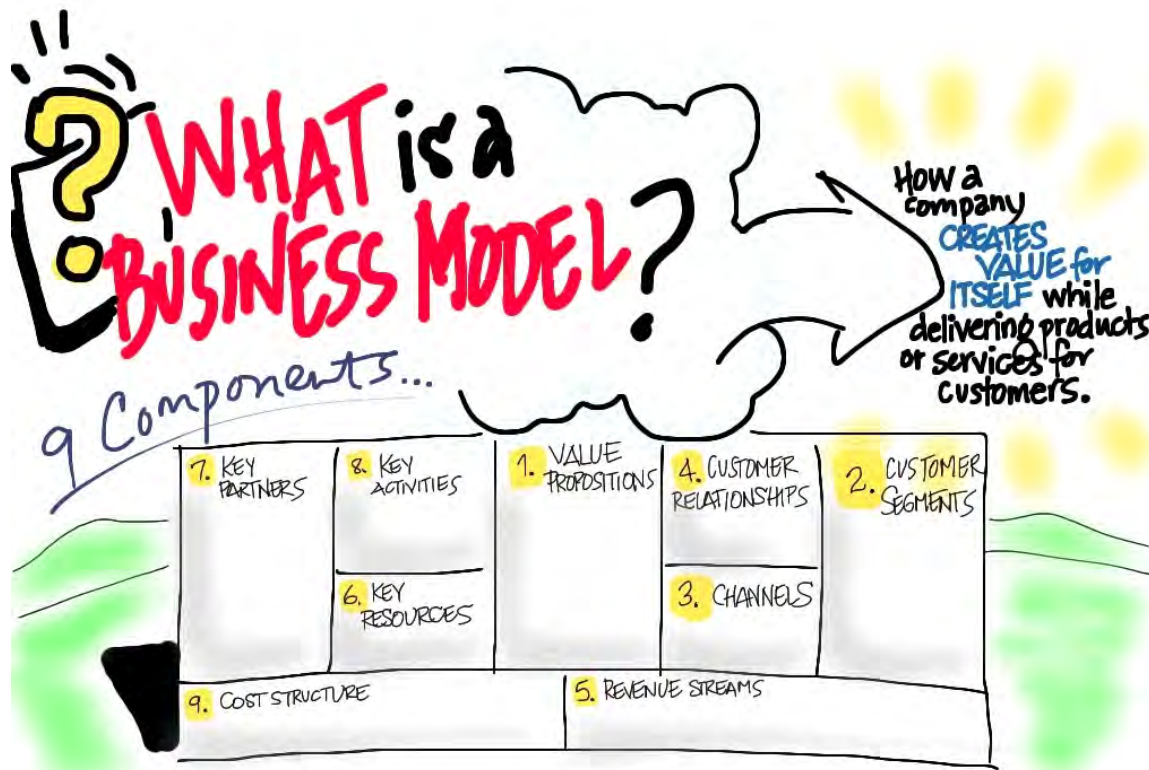
- Time all presentations
- Give students 1-minute warning

Before Class Ends:

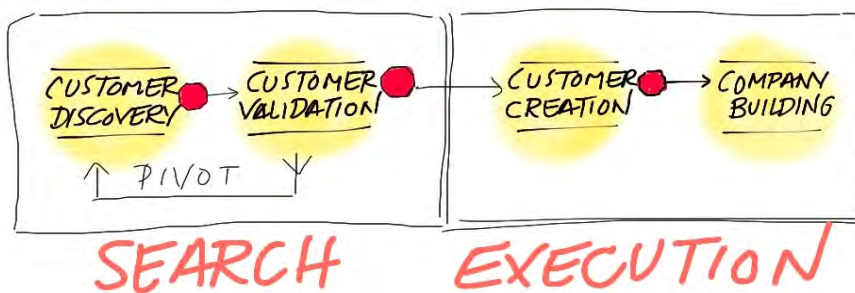
- Remind teams that they need to be at least a week ahead in scheduling their mandatory office hours. This may require the TA to reach out to certain teams to wrangle them into available slots. We have found it best to make office hours mandatory, and have teams rotate through the teaching team members to get different perspectives on their progress.
- Remember that remote office hours can be extremely effective for teams, mentors, and faculty. Lots of mentors prefer weekend times for their mentor-team meetings, and in some cases this alternative may be worth considering for faculty-team meetings as well. This is especially true toward the end of the class, when there is a mad scramble to pull it all together for the final presentations and videos.

Class 1

Class 1: Business Models Key Concepts

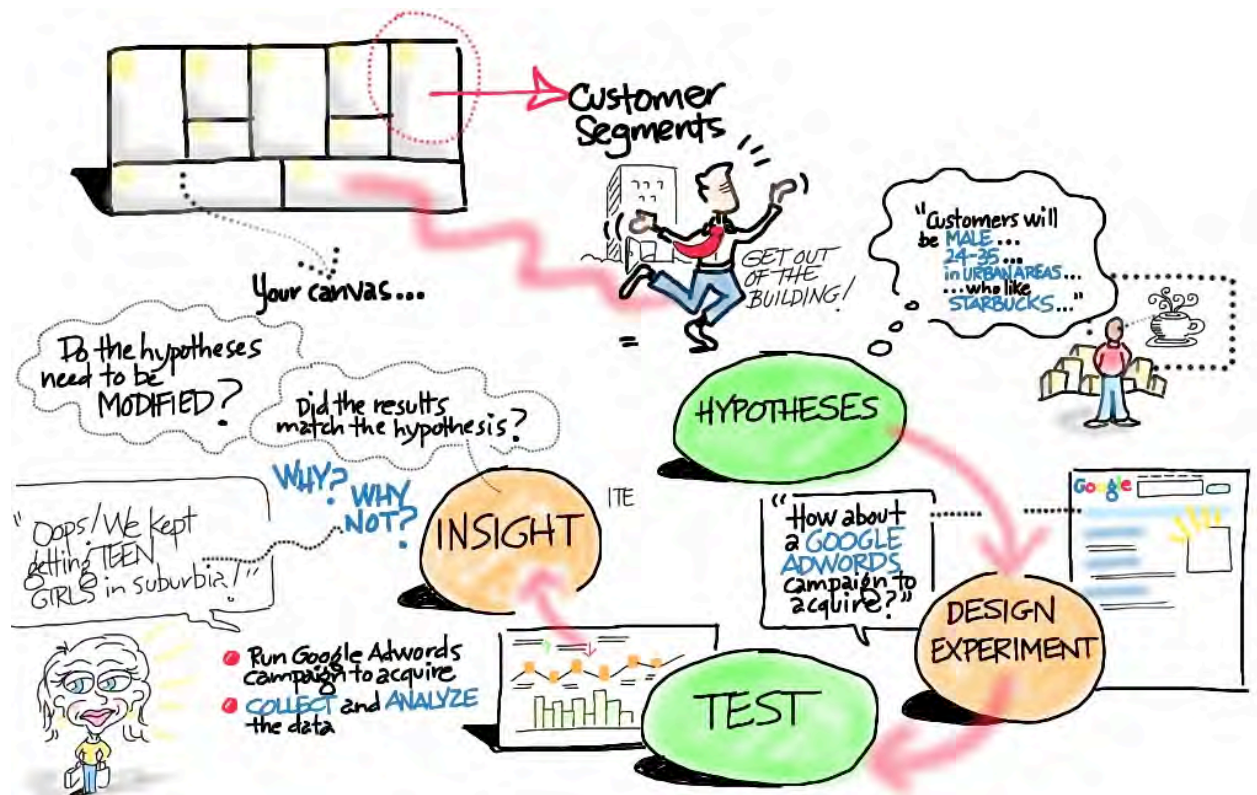


Ensure students understand all the parts of the Business Model Canvas.



Ensure students understand the four steps of Customer Development.

Class 1



Ensure students understand the hypothesis>design>test>insight loop.

Class 1

\$200 MM/yr US market size

- 180,000 dentists
- 2300 **visits per year** average
- **Consumable** for each patient
- ~\$5 cost per consumable
- **10%** of visits
- \$0-100 cost per tool
- 20% of dentists

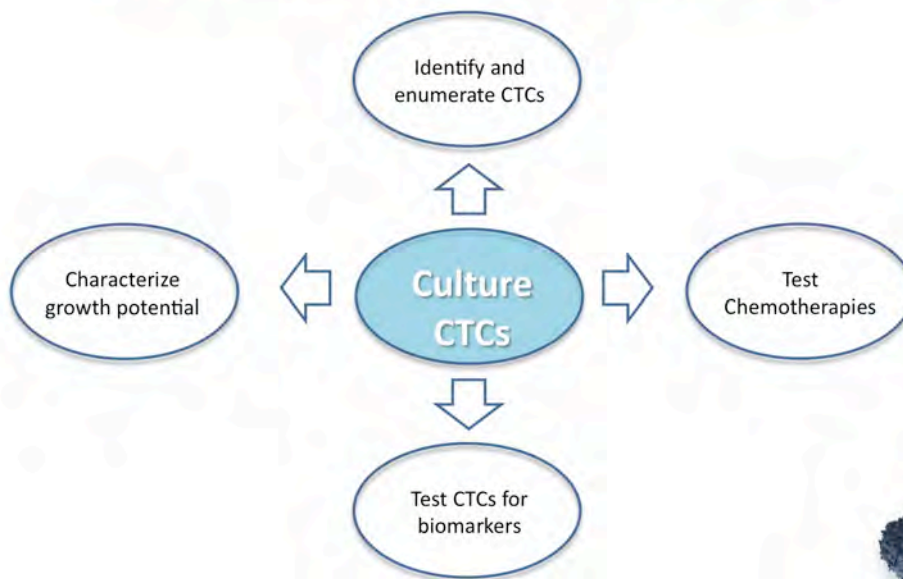


Consumables are key

Source: US BLS, ADA, dentist interviews, industry research

dentalOptics

Cell culture value proposition



CanScan Lean LaunchPad Final Presentation

12



BERKELEY LAB
LAWRENCE BERKELEY NATIONAL LABORATORY

Class 1

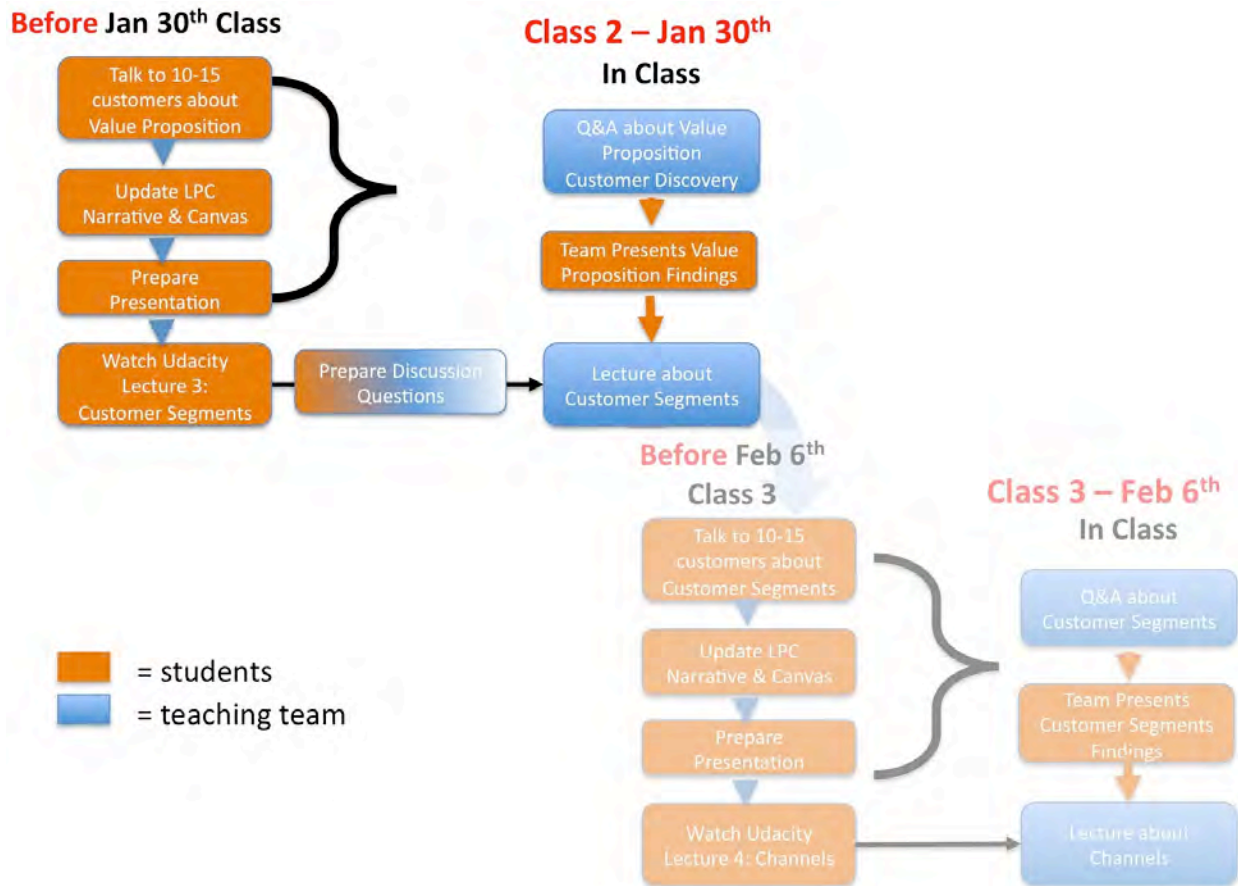
Workshop 1: Customer Discovery Practice for the Real World

For student teams that have no experience talking to customers (undergrads, engineers, etc.), we've found it helpful to offer a two-to-three hour workshop in the first week of class on the basics of Customer Discovery.

This workshop should comprise:

- Group viewing: Show the "How to Get Ready for Customer Discovery" videos to the class: <http://startupweekend.wistia.com/projects/zt618zz0r7>.
- Class discussion: Have each team describe their Customer Discovery preparation process.
- Group viewing: Show the "How to Do Customer Discovery" videos one at a time: <http://startupweekend.wistia.com/medias/tao3s8hf7l>
- Role-playing: After each video have each team role play a customer interaction with another team.
- Peer review: Have the teams critique each other.
- Faculty moderation: Offer "best practice" suggestions.

Class 2: Value Proposition



Teaching Objective: *Value Proposition*

Set expectations for:

- Customer Discovery: quantity, speed, and **insight**. Students tend to default to a journalistic narrative of reporting: "Here's what I saw, and here's more of what I saw," versus an entrepreneur's narrative: "Here's what I saw, and here's what it means."
- Detailed and insightful annotations of their Business Model Canvas updates.
- Have students get in the habit of updating LaunchPad Central Customer Discovery narratives and Profiles as soon after their interviews as possible.
- Waiting to update Discovery until just before class deprives the team of:
 - comments and insights from other team members that may not have been on that interview
 - comments and feedback from their mentor
 - comments and feedback from the faculty
 - the more likely it is that fewer details will be captured and shared.

Class 2

- We also see prospective angel and venture investors ask to see a team's discovery narratives to accelerate their due diligence process. The more detailed and timely this resource is, the more value it may have should a team decide that their project is worthy of pursuing after the course has ended.

Remind teams:

- Customer calls are not optional. They need to be continuous. Survey Monkey and other online survey tools, while potentially providing valuable insights and learnings, DO NOT COUNT toward their weekly Customer Discovery interview quotas. One-on-one Skype calls are ok, and phone calls can also get the job done. But there's nothing as effective as in-person, where teams can explore the unexplored, pick up visual cues from the surroundings, and
- Hypotheses need to be turned into facts. There are no facts inside their university/lab. This class is not about the execution of their original idea. After these interviews begin, most classes will have several teams contemplating significant pivots around their original hypothesis as they reflect on the honest feedback they get, and wonder aloud "what were we thinking?"
- Getting out of the building almost always also means getting off the campus. Lots of interviews with other students are not a substitute for true Customer Discovery – it just jacks up the "number of interviews" on the team's first slide. Unless their target market is, in fact, students (which it almost never is ...) this can be a colossal waste of time.

Why?

Many teams believe "a company is all about my *invention*." Your goal is to teach them "it's all about the *business model*." The MVP, pivots, and Customer Development conserve cash, and can accelerate the time it takes to discover a viable product-market fit.

How? Have Teams Present *Value Proposition* Discovery Results

- The teams should have spoken to *at least 10 customers* since the last class. The goal should be 15, and you should not accept anything less than 10, especially in the critical first weeks when the question-to-answer ratio will be way out of line for all teams.
- Publicly call out any team that did not talk to more than 5 customers. (There's always one.)
- Stop their presentation. Have them leave to make phone calls. Tell them if they have something to add before the rest of the presentations are over, they can present.
- If leaving the room to make calls is absolutely not a possibility (time of day or day of week may severely limit this approach) they absolutely should **not** be given the podium. "What could you possibly have learned talking to only 5 customers that is worth our time? That's barely one customer interview per team member." It undermines the integrity of the weekly quota and will result in a race to the bottom. Paraphrasing the famous sales competition from Glengarry Glen Ross: 1st place, a new car; 2nd place, steak knives; 3rd place, you're fired. 15 interviews = 1st place. 10 interviews = 2nd place...
 - Make the point clearly to the class that Customer Discovery is what the class is about.

Class 2

- For you as an instructor, **finding your own style to effectively “push your students” might be the hardest part of the class.**
- **If you can't do this, you've lost the class.**
- You'd be surprised what they're capable of. Entrepreneurs are expected to accomplish more than is humanly possible with less than is humanly conceivable. Teaching that lesson starts here.
- We consistently see the teams that do best are the ones with the most interviews, especially in the first three weeks, as teams struggle to identify a viable product-market fit.
- Today's presentations have teams explain **what they learned** about their *Value Proposition* in those calls, not just **what they heard**.
 - Have them annotate the overall canvas with new insights each week.
 - For this week and next week, have them use the Value Proposition Canvas as well: http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf.
- Make comments to show you've read their LaunchPad Central narrative and emphasize that it's critical to keep it updated, and to not wait until the last minute before class to post those updates (see comments above).
- Make sure they are articulating their hypotheses—what they expected to learn versus what they found. Without that, it's just a bunch of random customer interviews.
 - **The “hypothesis → experiment → data → insight” loop is the core process of the class.**

Value Proposition Presentation Format

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform).
- Slide 3: Value Proposition Canvas, see: http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf.
 - What are the Products/Services, Pain Relievers, Gain Creators?
 - What's the MVP you'll test?
- Slide 4: What were your experiments to test Value Proposition?
- Slide 5 - n: What did you learn about your Value Proposition from talking to your first customers?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next

Class 2

Value Proposition Feedback

Be sure to get across these **Big Ideas** as you critique the team presentations. Students should understand:

- Why Customer Development can't be done with Waterfall engineering but needs an Agile development process.
 - Fatal founder mistake is assuming they understand the customer problem, therefore they specify the solution without leaving the building.
 - The majority of product features built in Waterfall are not wanted or used by customers.
 - The goal of the MVP is to find the *Minimum Feature Set*.
- The difference in an MVP for a physical product versus the Low and High Fidelity MVPs for a Web/mobile product.
- How their Value Proposition differs from an idea or a spec sheet full of features.
 - Make sure they understand the role of pain-killers, gain creators, and problems/needs.
- Identifying the competition and how customers view these competitive offerings.
- What their minimum viable product (MVP) is.
- What the market type is.
- What insight into market dynamics or technological shift makes this a fresh opportunity.

Instructors should emphasize:

- The difference between Value Proposition and feature sets.
- The goal is to find the *minimum* viable product.
- That Value Proposition and customers are integrated = product-market fit.
- The value of annotating the Business Model Canvas, and the domino effect one change can have on other elements of the Business Model Canvas.
- The need to be open to changing many, if not all of their initial Business Model Canvas hypotheses.

See key lecture concept diagrams below.

Common Student Errors in the Value Proposition Presentation

- Most teams start with a Value Proposition equal to the feature set.
 - Confusing product features with pains and gains.
- Make sure they've articulated pain-killers, gain creators, and their idea of what their MVP should be.
- Use your critiques to drive them to understand what pains their Value Propositions are solving, what gains they are creating:
 - Which features can do that?
 - What is the MVP required to prove the validity of their Value Proposition hypotheses?
- Not enough customer calls.
- No hypothesis testing, just demos or product pitches to potential customers.
- Did not articulate experiments to test their hypotheses.
- Did not articulate pass/fail tests for each hypothesis.
- Vague data from the calls.
- Little to no insight derived from the data.

Class 2

- No clue about market size, or overly optimistic.

Advanced Lecture: *Customer Segments*

- Assume the students have watched the Customer Segment lecture before class.
- The advanced lecture is **your** opportunity to **add additional information** on top of the Course video lecture.
- You can structure this as industry specific lectures (e.g., hardware, life sciences).
- Or offer more specifics about the Customer Segment portion of the canvas. If you haven't already, present and explain Osterwalder's Value Proposition Canvas and describe its relationship with the overall canvas:
<http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html>
- And/or it's always fun to present a multi-sided market example using the canvas, this time focusing on the Customer Segment. Enterprise software is a good example: Who's the customer? Is it the user? Recommender? Saboteur? Influencer? Buyer? etc.
- If possible, you may want to use one or more of your teams to illustrate these concepts.

Reading for *Customer Segments*

- *BMG* pp. 134-145: Ideation; 161-169: Prototyping; and pp. 200-211: Business Model Environment
- *SOM* pp. 85-97: Customer Segments; pp. 203-217: Problem Understanding; pp. 218-221: Gain Customer Understanding; pp. 222-226: Market Knowledge; pp. 260-266: Product-Market Fit; and pp. 476: Customer Segments Checklist

Presentation for Next Week's Class: *Customer Segments*

Students should talk to at least 15 potential customers. Presentation format:

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3: Value Proposition/Customer Segment Canvas, see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf
 - What are the Gains, Pain, Customer Jobs?
 - What's the MVP you'll test?
- Slide 4: How do they solve this problem(s) today? Does your Value Proposition solve it? How?
- Slide 5-n: What did you learn about your customers?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next

Class 2

- Slide 6: Diagram of customer workflow.
- Slide 7: What is the resulting Customer Archetype? Draw a diagram (see class 3 for an example).
- Post discovery narratives on Launchpad Central.
- Web/mobile startups start work on site or wireframe.
- Physical products: start prototype, demo, or model and/or crowd funding campaign (Kickstarter/IndiGoGo/Rally, etc.).

See *SOM* pp. 200-202 and 211-216

Viewing on Jan 29th: *Channels*

Students should:

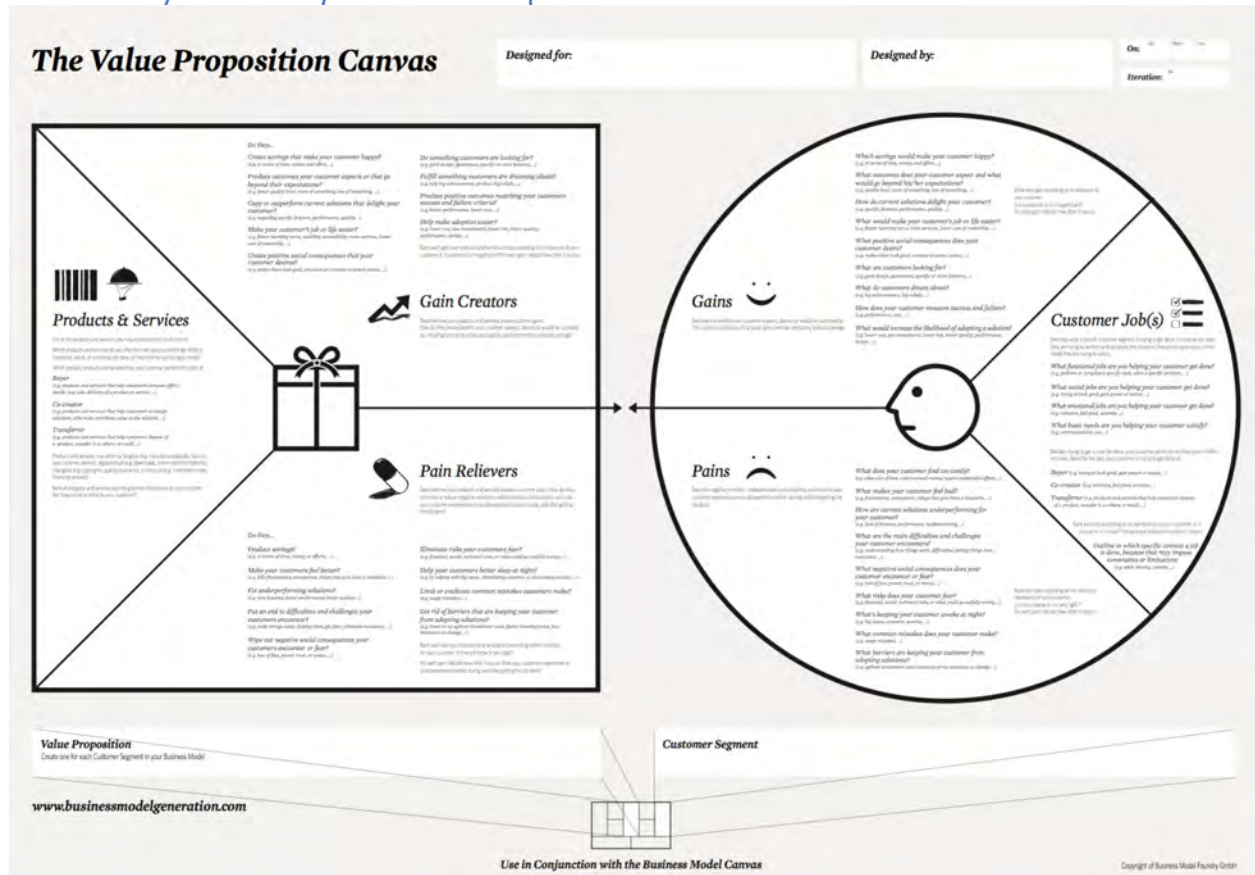
- Watch Course video Lesson 4: *Channels*
- Submit their 100-word discussion question assignment in advance of class:
Select a channel of distribution and list 3 strong benefits, and 3 strong challenges (or detriments). Are you inclined to use that channel? Why?

NOTE to Instructors: Send your mentors your weekly advanced PowerPoint slides, and a reminder for the mentors to stay current on the Course video lectures and *SOM* readings so that the mentor is speaking the same vocabulary as their team(s). Remind mentors to stay ahead in the video lectures so they can guide their teams with the greatest effect.

Make sure mentors are pulling their weight. We have found that mentor comments are an extremely important indicator of a team's ultimate success. The Mentor Scorecard on LaunchPad Central can be your leading indicator to identify which mentors need encouragement and support.

Class 2

Class 2: Key Value Proposition Concepts

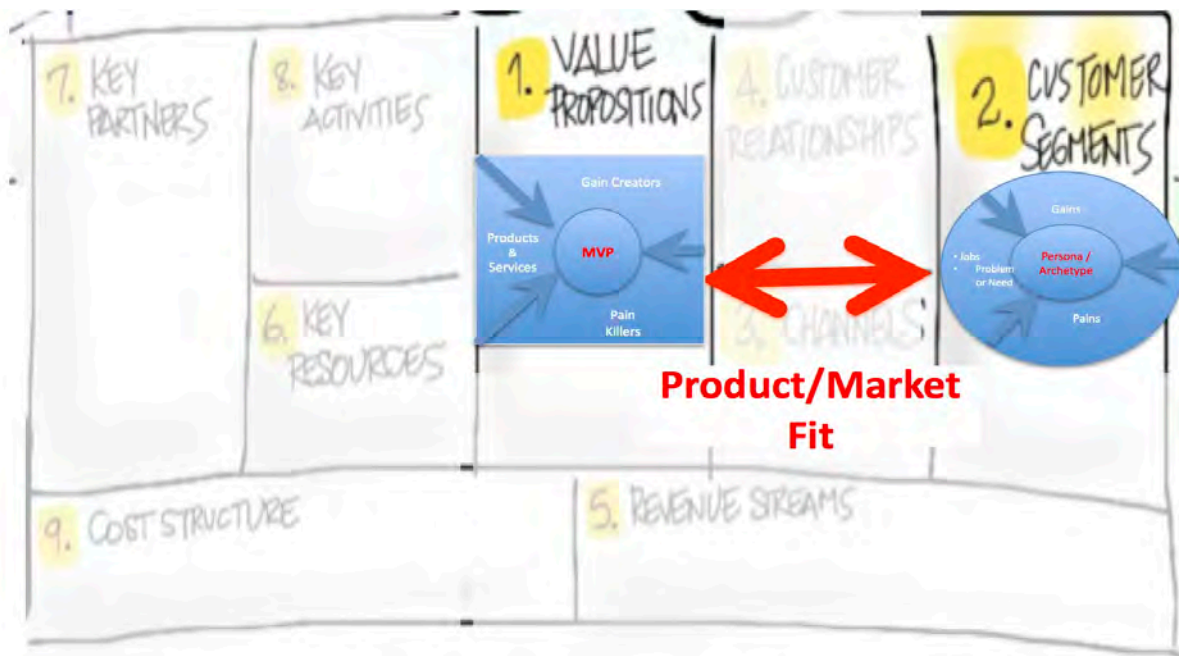
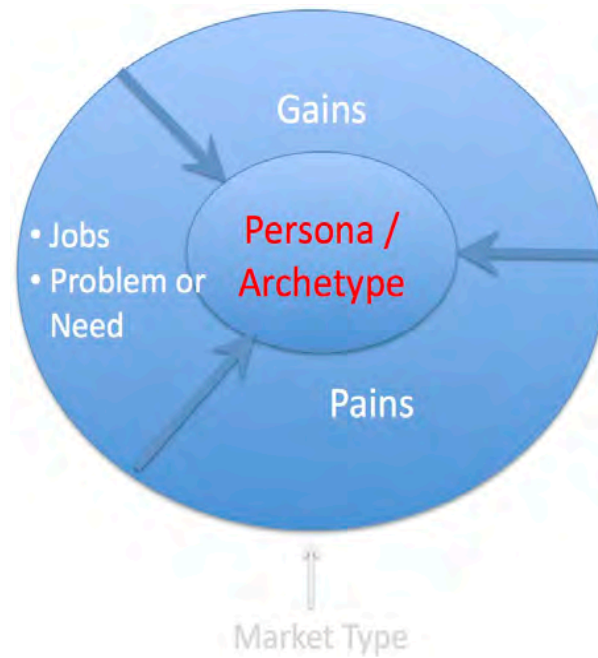


The Value Proposition



Ensure students understand the three components of the Value Proposition.


Class 2



Casually introduce the three components of the Customer Segment.

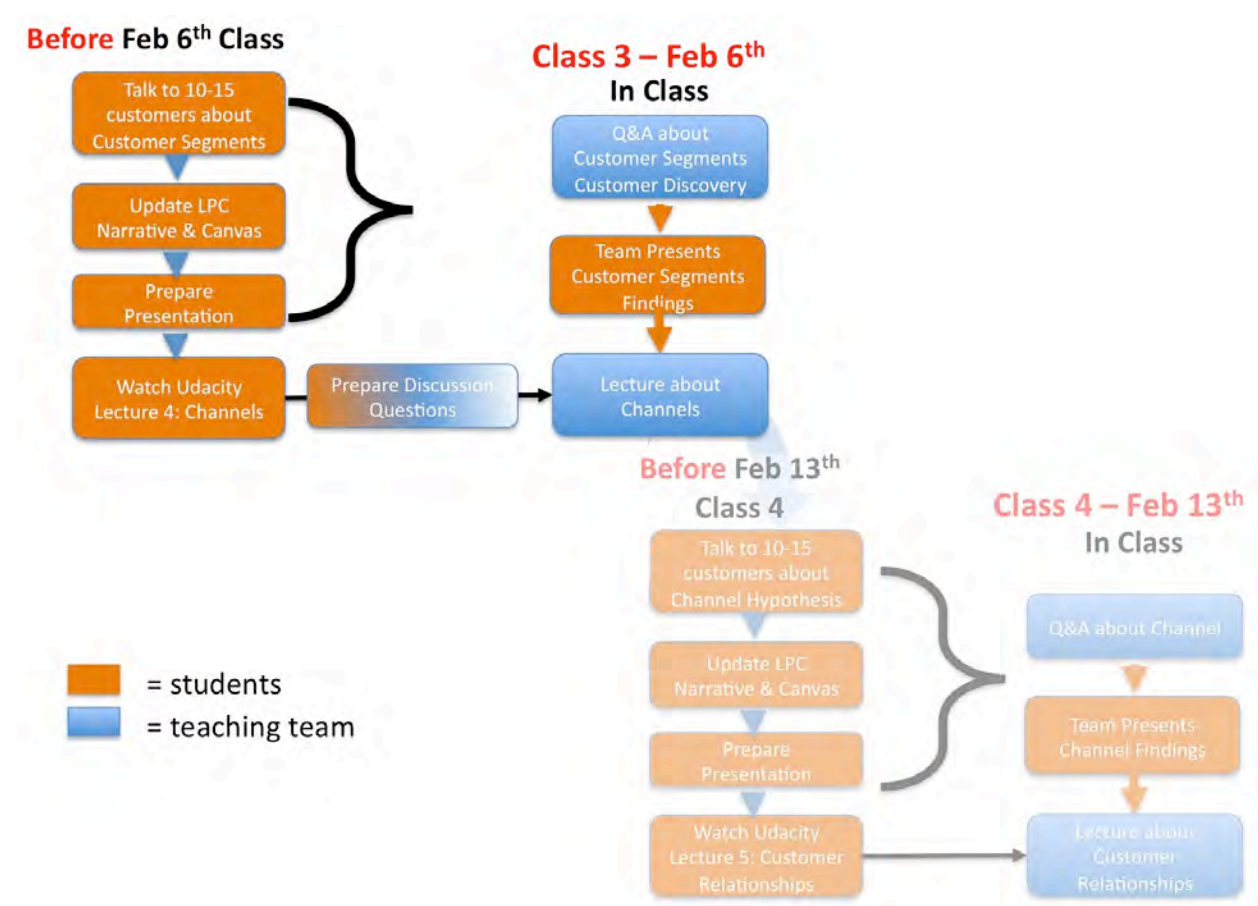
Class 2

Ensure that students understand that product-market fit = Value Proposition + Customer Segment.

Hypothesis	Test	Results
<ul style="list-style-type: none">Existing prepaid cards add value to a subset of the population<ul style="list-style-type: none">Underpenetrated opportunityWe can find a better channel to reach this customer segment and convert themExisting prepaid cards are flawed <i>and</i> can be improved<ul style="list-style-type: none">We can do something clever to shake up the fee structure and/or build in a new feature (e.g., rewards)Solution = prepaid + loyalty card<ul style="list-style-type: none">Distributed at retail POS	<ul style="list-style-type: none">Interviewed supermarket executives, payment processors, private label card manufacturers, prepaid program managers, loyalty consultants, and data analytic firms 	<ul style="list-style-type: none">User acquisition is critical → user engagement is everythingUnderpenetrated opportunity because people:<ul style="list-style-type: none">Don't understand the value of the cardDon't know about the cardHaven't bought one yetPotential customers are aware of and understand prepaid, but:<ul style="list-style-type: none">Hate the feesHaven't bought one yet

Ensure that students understand they have to articulate their hypotheses, design experiments, test, and hopefully get insights.

Class 3: Customer Segments



Teaching Objectives: *Customer Segments*

- Continue the pace of discovery, customer calls, insights, and critiques.
 - Most teams are pivoting from their original hypotheses. Some are considering a “Restart.” (In class that’s just fine. In an incubator/accelerator, it may not be acceptable.) It’s much better to restart in Week 3 than in Week 6 or Week 7 (which we have seen more than once). In Week 3, there is less “backfilling” required to catch up on their “new” Canvas.
5. Make sure teams continue to:
 - Annotate and update their Business Model Canvas.
 - Update their LaunchPad Central Customer Discovery narratives and their Profile to reflect any changes in the market size that may be a result of pivots and Customer Discovery as it relates to identifying the team’s product-market fit.
 - Draw diagrams. They’re a big part of the class: if you can’t draw it, you don’t understand it. See examples.
 6. Focus your main critique on their understanding of the Value Proposition and product-market fit.
 7. Acknowledge you’ve read their blog by posting comments for each team.

Class 3

8. Comment on other egregious parts of the canvas as necessary.
9. Before students leave class, make sure you solve any apparent team dysfunctions. There will almost always be at least one team in need of “therapy,” and the sooner you identify it, the more likely you can help the team make necessary mid-course corrections. Sometimes these can provide valuable teaching moments for the entire cohort as well.

Why?

- Students in general (and scientists and engineers even more so) usually only have a vague sense of who will buy and what a customer actually looks like.
- Get students started with talking to their peers and others at conferences, etc.
- Remind them that customers are the critical difference between an idea and a successful company.
- Getting out of the building is about testing their Value Proposition hypotheses against their matching Customer Segment hypotheses. In the beginning, for nearly every team, this process is hard and awkward. At some point (usually after the team’s first major pivot), the proverbial “ah ha” moment hits, the light bulb goes off, and they can’t imagine any other way of learning what they need to do to be successful.

How? Have Teams Present *Customer Segment* Discovery Results

- The teams should have spoken to *10-15 additional customers* since the last class. Now with 20-30 customer interviews under their belt, they are starting to get real data and their perfectly well-constructed hypotheses are starting to crumble.
- You need to keep the pressure on them. As instructors, you’ll push them harder than any other class they will take. Not all students can make it through. Your role is to inspire them, encourage them, and push them, but in the end they need to decide whether entrepreneurship is for them. This class will help them decide. For you as an instructor, **“pushing students” well beyond their comfort zone can be the hardest part of executing a successful class.**
- Today’s presentations teams need to explain what they learned about their *Customer Segment* in those calls.
- Make comments to show you’ve read their LaunchPad Central narrative and emphasize that it’s critical to keep it updated.
- Make sure they are articulating their hypotheses of what they expected to learn versus what they found. Without that, it’s just a bunch of random customer interviews.

Class 3

Customer Segment Presentation Format

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3: Value Proposition/Customer Segment Canvas, see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf..
 - What are the Gains, Pain, Customer Jobs?
 - How do each of the Customer Segments solve this problem or these problems today? Does your Value Proposition(s) solve it/them? How?
- Slide 4: What's the MVP you'll test?
- Slide 5: Are there multiple Customer Segments? Does each have a matching Value Proposition? A matching Revenue Stream?
- Slide 6-n: What did you learn about your customers?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Slide 7: Diagram of customer workflow.
- Slide 8: What is the resulting Customer Archetype(s)? Draw a diagram including a "Day in the Life" description.

Customer Segment Feedback

Be sure to get these **Big Ideas** across as you critique the team presentations:

- In a multi-sided market, each side of a market has its own Value Proposition, Customer Segment, and revenue model and may have its own channel and customer relationships.
- Value Proposition + Customer Segment = product-market fit.
- Customer pains and gains.
- Customer "Jobs to get done."
- Customer archetypes/personas and why they are useful. (Well beyond demographic data of age, gender, and race. Who are they? Where do they live? What do they read? What trade shows do they go to? What websites do they visit? etc.)
- Problems versus needs.
- The differences between users, influencers, recommenders, decision makers, economic buyers, and saboteurs.
- Who will pay and why.

Instructors should emphasize:

- Market Type: explain the differences among Existing, Re-segmented, New, and Clone markets.
 - Explain why it matters to know which market type you are in.
 - Market type influences how much customers and competitors can teach them.

Class 3

- The difference between single-sided and multi-sided markets.
- Customers need to be matched with their appropriate Value Proposition.
- Customer knowledge leads to defining archetype/persona and the associated MVP:
 - The goal of understanding Value Proposition is knowing the MVP.
 - The goal of understanding Customer Segments is knowing the archetype/persona.

Common Student Errors on the *Customer Segments* Presentation

- Not enough customer calls. (NOTE: There can **never** be enough customer calls, which is one of the reasons that this will be the hardest class your students will ever take.)
- Vague data from the customer calls: "They like our features..."
- Little or no insight derived from the data: "we called on 12 customers and here's what they said..."
- Team thinks the purpose of the class is the execution of their idea versus testing their hypotheses.
- Poorly designed interviews: settling for the "do you like my product" answer and moving on.
- Most students usually think of customers as the users of the product and are still confused about the difference between users/payers/recommenders, etc.
- Make sure they understand there may be multiple Customer Segments (e.g., users, payers).
 - Each one might have different users/payers/etc.
- Ask them if they can draw a day in the life of the customer. If not, tell them they don't know enough.
- Use your critiques to drive them to understand what pains their customers might have, what gains they could be looking for, and what jobs they may want done.
 - Which features from the Value Proposition will do that?
- What experiments can they construct to turn these hypotheses into facts they can build upon?
- Did not articulate experiments to test their hypotheses.
- Did not articulate pass/fail tests for each hypothesis.
- Missing/forgetting competitive mapping, current solution (unless it's a new market) and its strengths/weaknesses.
- No idea about a customer archetype.
- Make sure their presentation included a customer archetype slide and a customer workflow diagram.
- Who specifically is (are) the archetype(s).
 - Give compliments to teams who drew archetypes and customer flow, especially to the ones that actually made sense!
 - Do not be polite to those who haven't. **If you can't draw it, you don't understand it.**

Advanced Lecture: *Channels*

- Assume the students have watched the *Channels* lecture before class.
- The advanced lecture is **your** opportunity to **add additional information** on top of the Course video lecture.
- Again, you can structure this as industry specific lectures (e.g., hardware, life sciences).

Class 3

- Or offer more specifics about the Channel part of the canvas:
 - See Mark Leslie *Value Chain* slides at <http://www.slideshare.net/markleslie01>.
- If possible, you may want to use one or more of your teams to illustrate these concepts.

Reading on Feb 7th for *Channels*

- *BMG* pp. 147-159: Visual Thinking
- *SOM* pp. 98-111: Channels; 243-244: Meet the Channel; 332-343: Channel Roadmap; 406-412: Distribution Channels; and pp. 478: Channels Checklist

Presentation for Next Week's Class: *Channels*

- Students should talk to **at least 10 potential customers and channel partners** (salesmen, OEMs, distributors, etc.). 15 or more is the goal.
- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3 - n:
 - What is the distribution channel? Are there alternatives?
 - What was it that made channel partners interested? Excited?
- Slide 4-n: What did you learn about your Channel?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Draw the channel diagram and annotate it with the channel economics.
- Post discovery narratives on Launchpad Central.
- Web/mobile startups need site up and running/wireframe.
- Physical products Demo prototype, demo, or model and/or crowd funding campaign.

Viewing on Feb 12th

Students should:

- Watch Course video Lesson 5: *Customer Relationships*
- Submit their question assignment in advance of class:
 - Which of your Customer Segments will tend to have the highest Lifetime Value? Why?

Note: In an educational environment, the goal of the class is to expose the students to all the canvas components—*regardless of whether they've achieved product/market fit*.

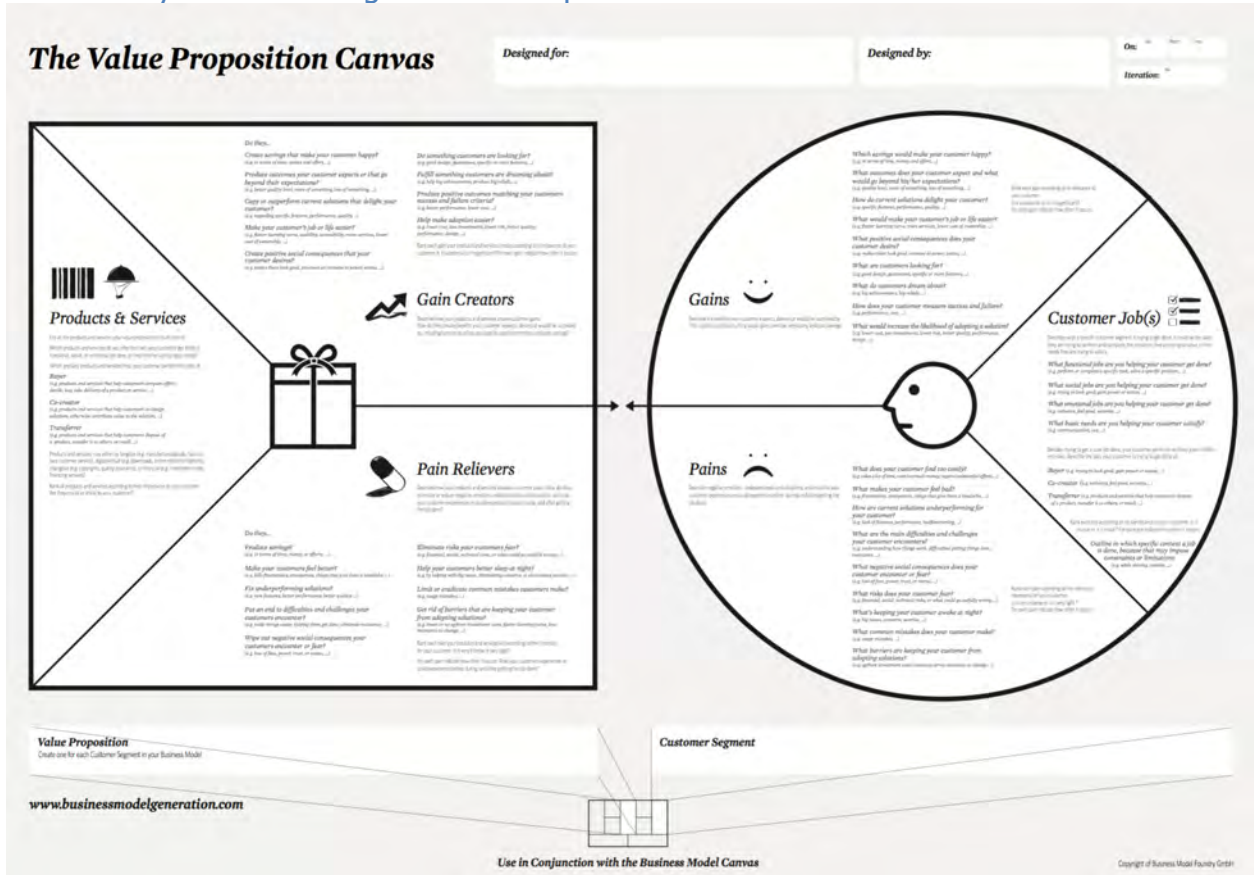
If this class were part of an incubator/accelerator, you would give the teams extra time between class 3 and 4 to allow further exploration of Value Proposition and Customer Segments.

Class 3

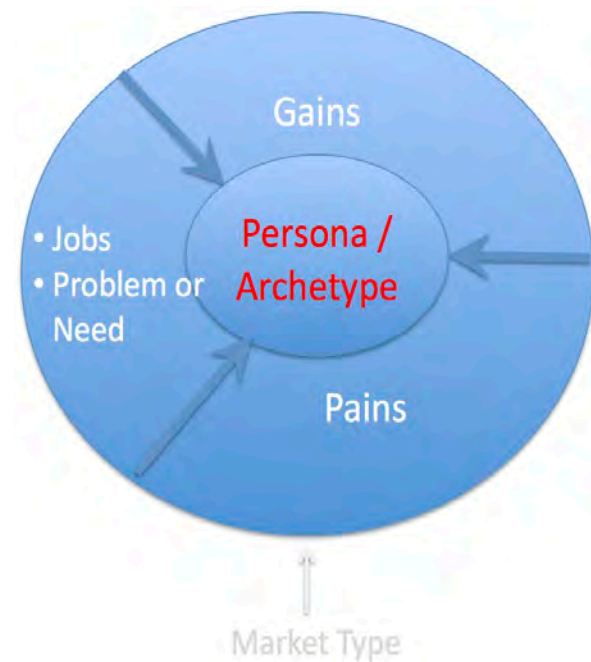
Note: Send your mentors your weekly advanced PowerPoint slides, and a reminder for the mentors to stay current on the Course video lectures and *SOM* readings so the mentor is speaking the same vocabulary as their team(s). Continue to monitor the Mentor Scorecard on LaunchPad and be sure to praise the leaders and cajole the laggards to do better.

Class 3

Class 3: Key Customer Segments Concepts



Class 3



Ensure that students understand the three components of the Customer Segment.



Ensure students understand the four market types.

Class 3

What We Found: Patient Care Flow

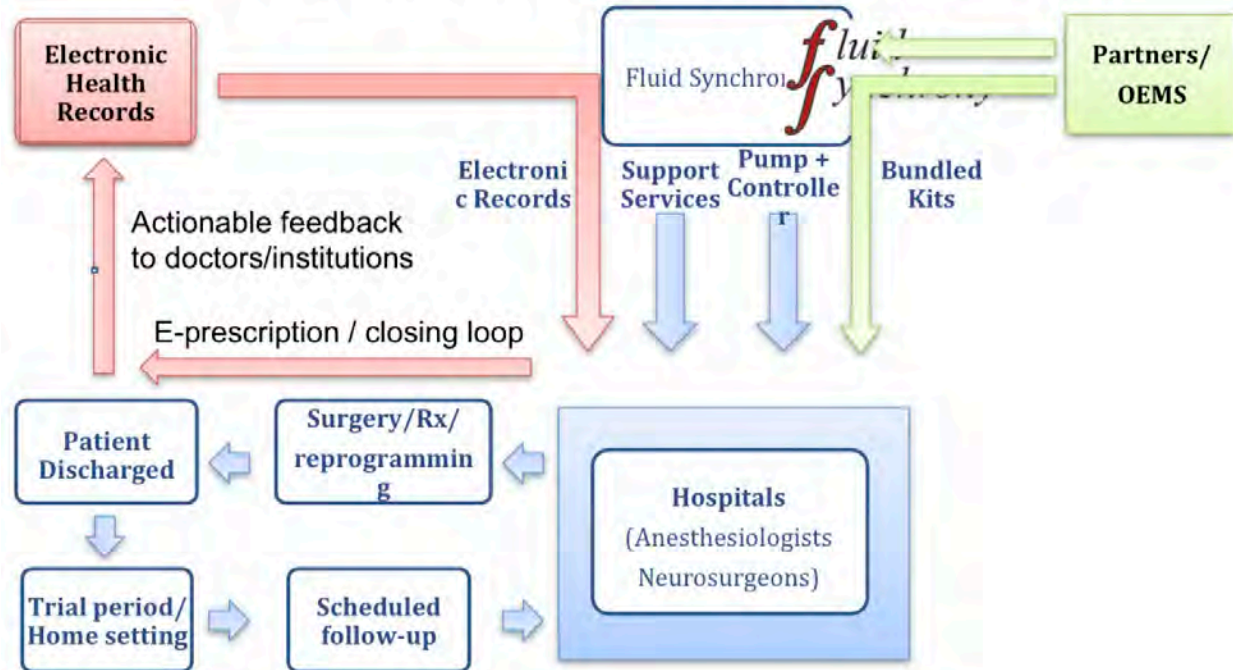


Figure 9. Example of a Customer Flow Diagram

Customer Segment: Professional-class consumers shopping frequently online



Pat the Professional

Upwardly mobile professional (some Grad Students)
Salary: \$40,000 – 150,000/year
Finance, Consulting, PR, Marketing
Follows fashion/technology trends
Spends \$1-15K on discretionary items online
Purchased online in last 30 days

Demographics

- Male/female, aged 18-35
- Minimum bachelors from expensive school

Traits:

- Ideas from blogs & shopping websites
- Values celebrity trends & friends' opinions
- Wants high ticket items at lowest price
- Event-driven shopper—new release or sale

Motivation

- Craves new products
- Hates tedious work
- Identifies as influencer among friends
- Fears being cheated online

Behavior

- Spends 5 hour+ monthly hearing about products
- Shares online and in person about products he loves

Budget

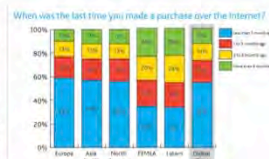
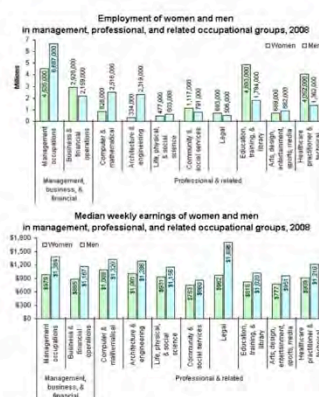
- \$2-10K+/year in discretionary online purchases

"The XXX is awesome, I really want one. I know I just bought the YYY, but it's probably time to upgrade."

~5.9M "Pat the Professionals" in US

Drawn from top 1/3 of 17.8M frequent online shoppers

17.8M based on 40.2M Professionals (2008 Census) * 0.762 US Internet Penetration (Nielsen 2010Q1) * 0.58 consumers shopping online in last month (Nielsen 2010Q1)



Online Recommendation Market Opportunity (conservative strawman #s)

Assuming 10% share, 5% affiliate fees

Top Shoppers

(~\$7B/year spend): ~\$35M/year

Professional-class frequent shoppers

(~\$1.8B/year): ~\$9M/year

Other Professional-class shoppers

(\$0.7B/year): ~\$3.5M/year

Figure 10. Example of a Customer Archetype/Persona



Class 3

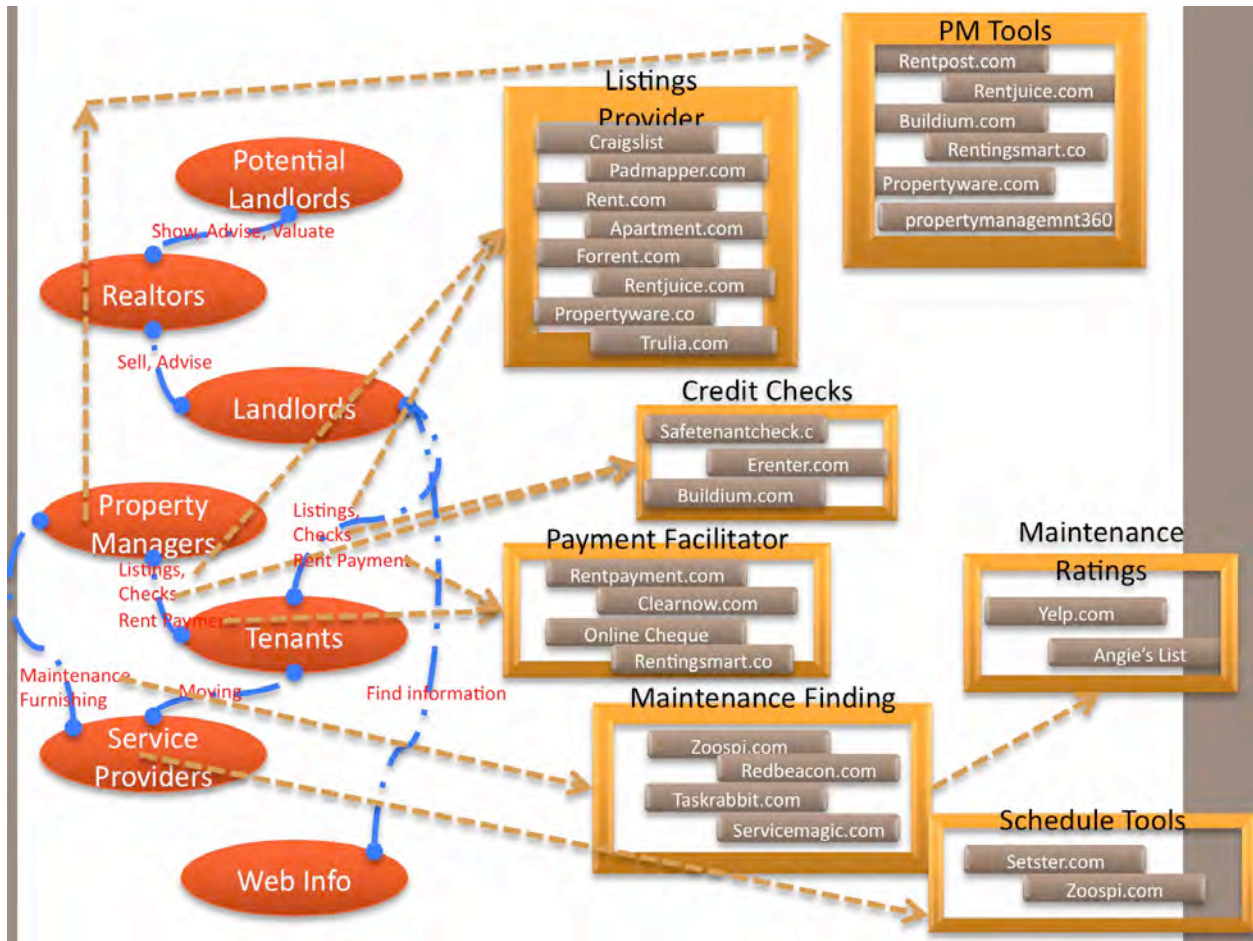


Figure 11. Example of a Customer Flow Diagram

Class 3

What We Learned: **Current** Workflow

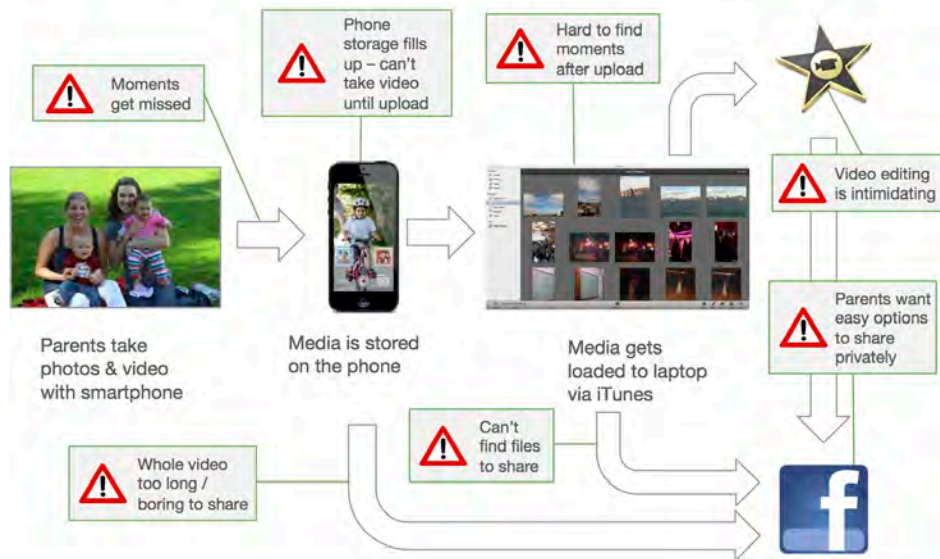


Figure 12. Example of Current Customer Flow Diagram

What We Learned: **Evoke** Workflow

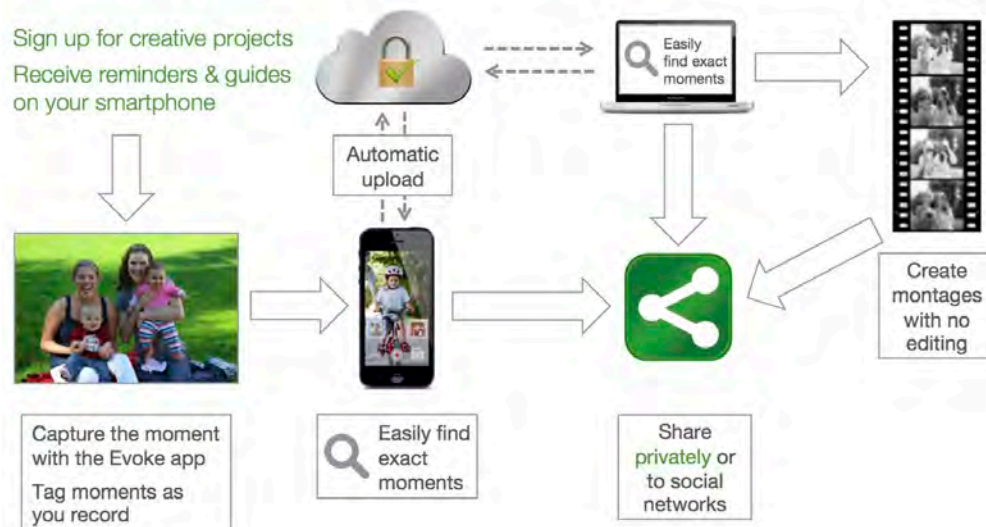


Figure 13. Example of Future Customer Flow Diagram

Class 3

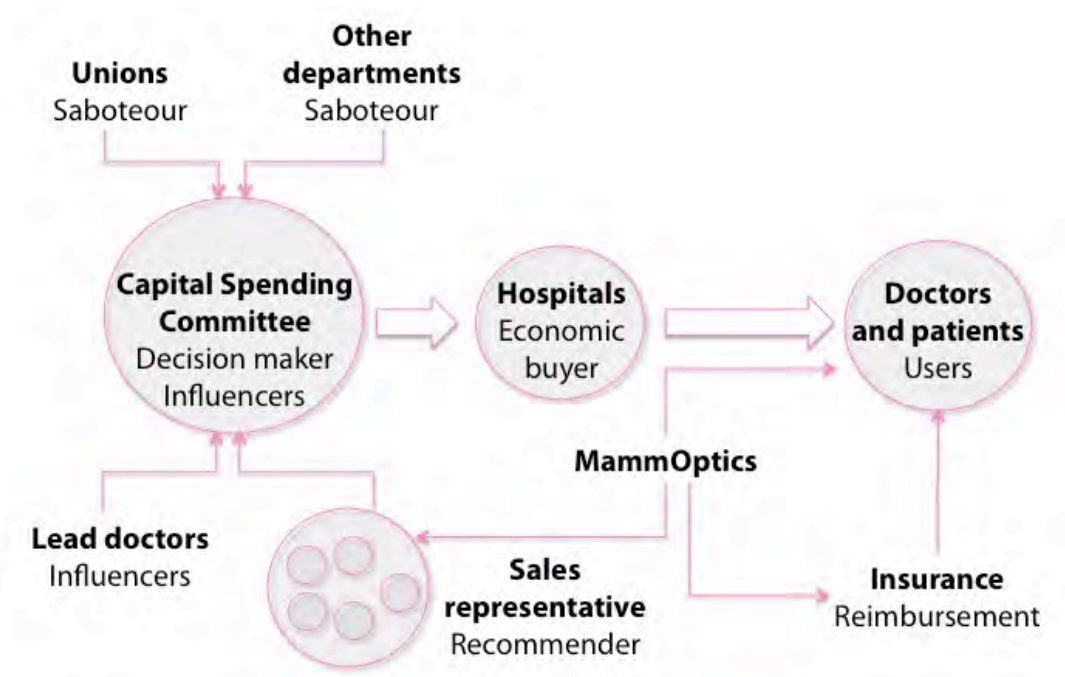


Figure 14. Example of a Customer Flow Diagram

Workshop 2: Customer Acquisition and Activation

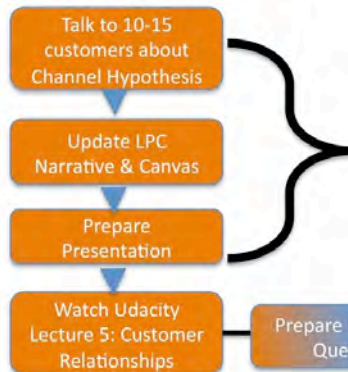
Customer Relationships—how to get, keep, and grow customers—takes years to learn. It can be the subject of a semester-long class. Yet here we are having students watch an online lecture, get some additional tips in class, and then make them do it. A tough order to fill.

Surprisingly, most teams do just fine. But to help them along, teams that are building Internet or social-local-mobile applications can benefit from a crash course in customer acquisition and activation.

This workshop is your chance to offer an optional advanced tutorial on the basics and intermediate steps in web and mobile marketing.

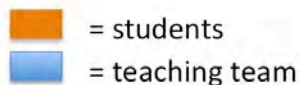
Class 4: Distribution Channels

Before Feb 13th Class

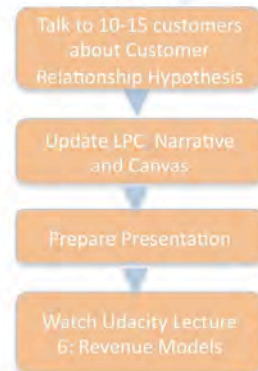


Class 4 – Feb 13th

In Class



Before Feb 20th Class 5



Class 5 – Feb 20th In Class



Teaching Objectives: *Channels*

- Continue the pace of discovery, customer calls, insights, and critiques.
- Most teams are pivoting from their original hypotheses. Some are considering or re-considering a “Restart.” (In class that’s just fine. In an incubator/accelerator, it may or may not be acceptable.)

Searching for a Business Model

- This is about the time teams start entering the “trough of despair.”
 - They discover that most of their hypotheses are wrong.
 - Some teams melt down (team members check out, disagreements over pivots, etc.).
 - Acknowledge that this is normal and teams need to push through it if they want to succeed. You’re there to help them during office hours, and mentors can play an important role as your deputy.
- Refer to team “roller coaster” in Lecture 4 concept diagrams.

Class 4

General Updates

- Make sure teams continue to:
 - Annotate their Business Model Canvas with updates.
 - Update LaunchPad Central Customer Discovery narrative and their Profile to reflect changes in market size.
- Review each team's channel flow diagrams. They're a big part of the class: **if you can't draw it, you don't understand it.**
- Acknowledge that you've read their blog.

Why?

Searching for a Business Model

Search versus execution means you go down a lot of false paths. Students will investigate a lot of blind alleys and kiss a lot of frogs. Change, disappointment, surprises and failures are part of the startup process.

Channel

Students (and most scientists and engineers) think of sales as a tactic a salesperson uses.

- Most entrepreneurs confuse channels with customers.
- They do not understand the impact a channel can have on its revenue streams.
- The more complex the channel, the smaller the margins will be. There is a cost-benefit analysis that needs to be explicitly made and quantified when choosing channels and defending choice of channels.
- Channels are a strategy. Discovering the right channel fit is an art.

How? Have Teams Present *Channel* Discovery Results

The teams should have spoken to *at least 10 customers* since the last class.

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3 - n:
 - What is the distribution channel? Are there alternatives?
 - What was it that made channel partners interested? Excited?
- Slide 4-n: What did you learn about your Channel?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Draw the channel flow diagram and annotate it with the channel economics.
- Show Web/mobile site up and running/wireframe.
- Physical products show demo prototype, model, and/or crowd source campaign.

Class 4

Channel Feedback

Be sure to get these **Big Ideas** *across* as you critique the team presentations:

- Definition of a distributions channel: Direct, indirect, and OEM.
- Difference between physical and virtual channels.
- Types of physical and virtual channels.
- Every Customer Segment needs a channel (they can be the same, but make sure they match).
- Distribution channel versus product complexity.
- Distribution channel economics.
- How teams *Get* customers into their sales channel and move them successfully through the sales cycle.
- How to *Keep* them as customers *and* how to *Grow* additional revenue from those customers over time.
- How to develop “get customer” experiments to determine tactics that move customers into and through the sales funnel in a repeatable and scalable way.
- The concept of “Lifetime Value of a Customer” and how to calculate this figure and incorporate it into their customer acquisition strategies.

Instructors should emphasize:

- Channels need to match Customer Segments.
- Channels need to match the product (and support) complexity.
- Channel economics need to match revenue goals.
- Founders need to sell and close the first few orders to “prove” the channel. These can be contingent orders, pre-orders, or some other firm indication of intent to purchase. Use your critiques to drive them to understand:
 - What type of channel they’d use.
 - Why did they pick a particular channel, and what other channel(s) did they consider and dismiss? Why?
 - How much it will cost them to use that channel?
- Do they understand:
 - The relationship between a channel and its revenue streams.
 - The more complex the channel, the smaller the margins will be.
 - The cost-benefit analysis involved in choosing channels.
 - The experiments needed to test their hypotheses.
- Did they draw a channel flow diagram? With economics?

Common Student Errors on the Channel Presentation

- Not enough customer calls.
- Vague data from the calls.
- Mentors driving the team to an early conclusion rather than learning.
- Limited insight from the data, if any.
- Did not articulate and conduct appropriate, effective experiments and pass/fail tests for each hypothesis.
- Do they understand what channels customers buy from today?
- Students confuse the channel with the users of the product.

Class 4

- Not understanding the difference between direct/indirect and OEM channels:
 - Who does the marketing/demand creation in each?
 - Teams don't understand channel discount and the cost to acquire, service, and support a channel.
- Most teams assume that:
 - All startups use direct channels on day one.
 - You can start a new venture using multiple distribution channels.
- Ask, "Can you draw your channel flow, showing how the product moves from your startup to its end user, along with the costs and marketing/sales roles of each step in the channel?"
 - Make sure they've diagrammed it.
- Limited understanding of the sales cycle and customer acquisition process:
 - Is it repeatable and scalable? Can they prove it?
- What is the length of the sales cycle?
 - What are the critical points within that process?
 - Is their sales funnel predictable?
- Poorly drawn or incomplete channel diagram. Understanding of economics is weak, incomplete, or completely absent.

Advanced Lecture: *Customer Relationships*

- Assume the students have watched the *Customer Relationships* lecture before class.
- The advanced lecture is **your** opportunity to **add additional information** on top of the Udacity lecture.
- You can structure this as industry specific lectures (e.g., hardware, life sciences).
- Are your teams mostly web/mobile? If so, there's a ton of Internet Marketing topics. Retail, dive into that, direct sales b-to-b, etc.
- If possible, you may want to use one or more of your teams to illustrate these concepts.

Reading for Feb 14th for *Customer Relationships*

- *BMG* pp. 146-159: Visual Thinking
- *SOM* pp. 126-168: Customer Relationships Hypotheses; pp. 296-351: Get/Keep/Grow; pp. 480-482: Relationships Checklist; and pp. 490: MVP Test
- Review: Dave McClure's: "Startup Metrics for Pirates":
<http://www.slideshare.net/dmc500hats/startup-metrics-for-pirates-nov-2012>

Presentation for *Customer Relationships*

Talk to at least 10 potential customers. 15 is the goal.

Class 4

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3-n: What were your objective pass/fail metrics for each “Get” test/methodology?
 - What is your customer acquisition cost?
 - What is your customer lifetime value?
 - Build demand creation budget and forecast.
- What did you learn about your Customer Relationships (Get/Keep/Grow)?
 - Hypothesis: Here’s What we Thought
 - Experiments: Here’s What we Did
 - Results: Here’s What we Found
 - Action: Here’s What we Are Going to Do Next
- Draw the Get/Keep/Grow diagram and annotate it with the key metrics.
- Post discovery narratives on Launchpad Central.
- For web teams: Get a working web site and analytics up and running. Track where your visitors are coming from (marketing campaign, search engine, etc.) and how their behavior differs. What were your hypotheses about your web site results?
 - Engage in “search engine marketing” (SEM) and spend \$20 to test customer acquisition.
 - Ask your users to take action (email, signing up).
 - Use analytics (Google/Kissmetrics, etc.) to measure the success of your campaign.
 - Change messaging on site during the week to get costs lower.
 - If you’re assuming virality of your product, you will need to show viral propagation of your product and the improvement of your viral coefficient.
- Physical products show Demo prototype, model, and/or crowd funding campaign.

Viewing on Feb 19th

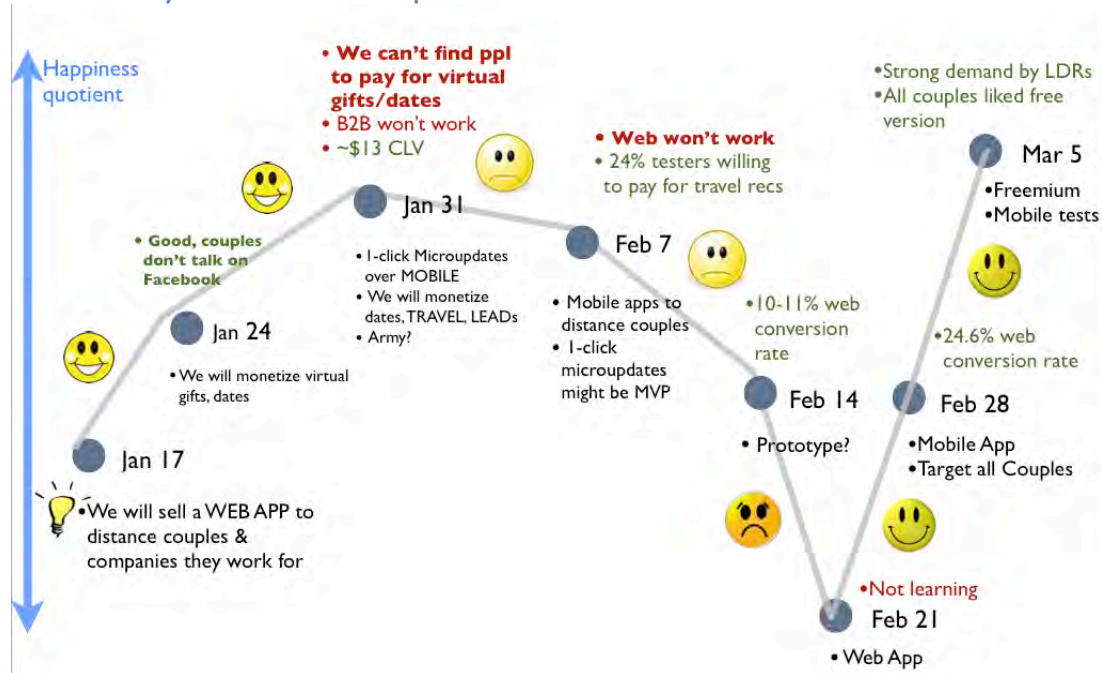
Students should:

- Watch Course video Lesson 6: *Revenue Model*
- Submit their 100-word discussion question assignment in advance of class:
List 5 different possible revenue models for your venture. Which do you prefer? Why?

Note: Send your mentors your weekly advanced PowerPoint slides, and a reminder for the mentors to stay current (or better yet, be ahead of the class) on the Course video lectures and *SOM* readings so the mentor is speaking the same vocabulary as their team(s) and can guide them in the process more effectively.

Class 4

Class 4: Key *Channels* Concepts



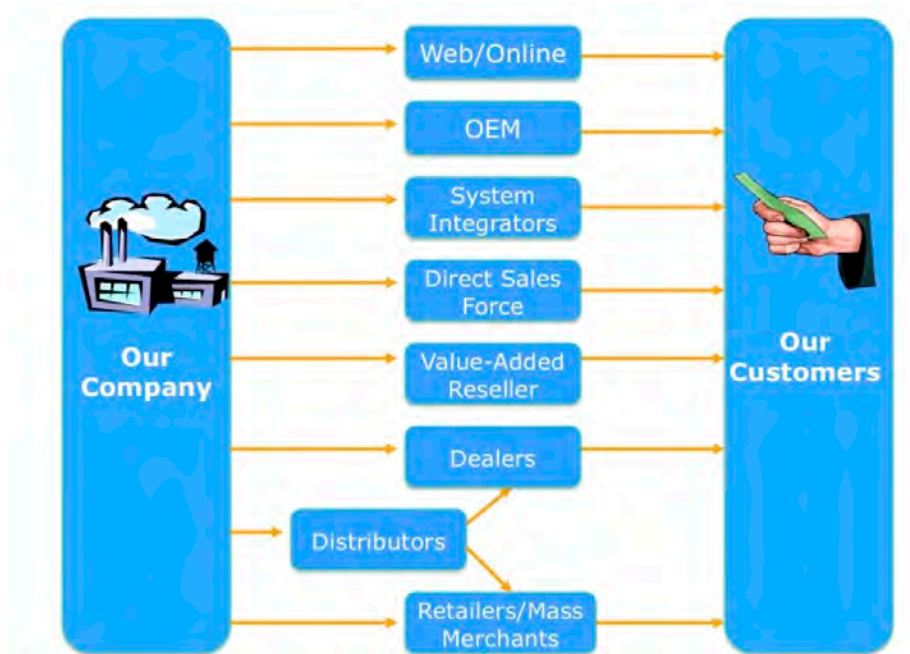
Teams will ride a roller coaster of emotions as they discover their initial hypotheses are wrong.

Wireframe MVP

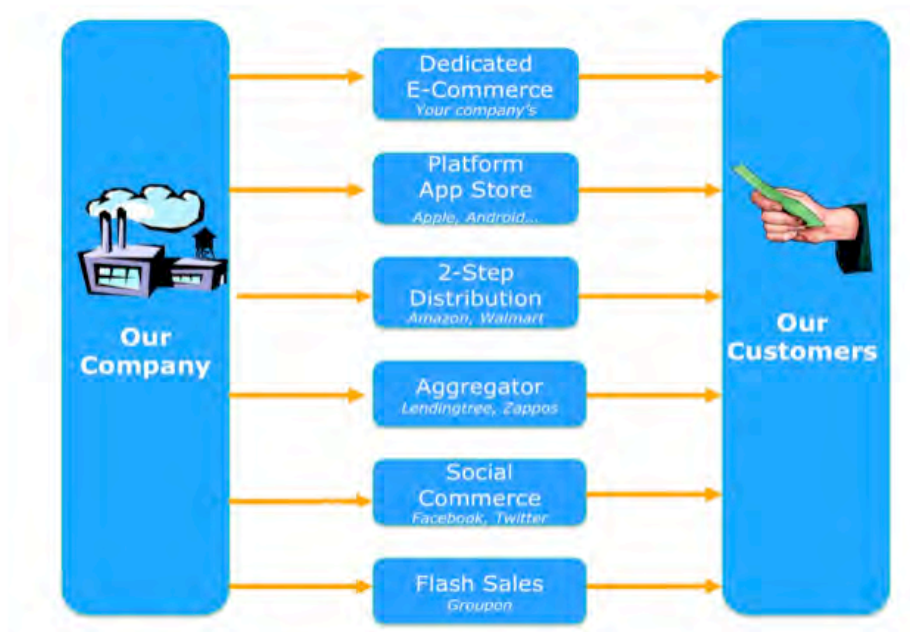


Web/mobile teams will build wireframes ASAP to test their MVP.

Class 4



Ensure students understand the physical distribution channel alternatives.

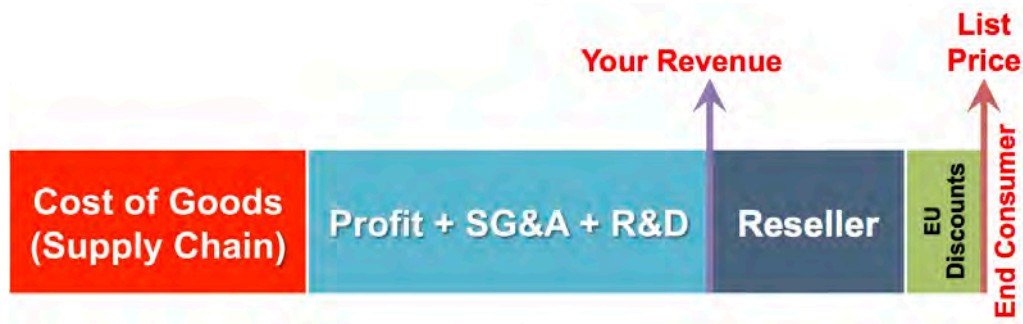


Ensure students understand the Web/mobile distribution channels.

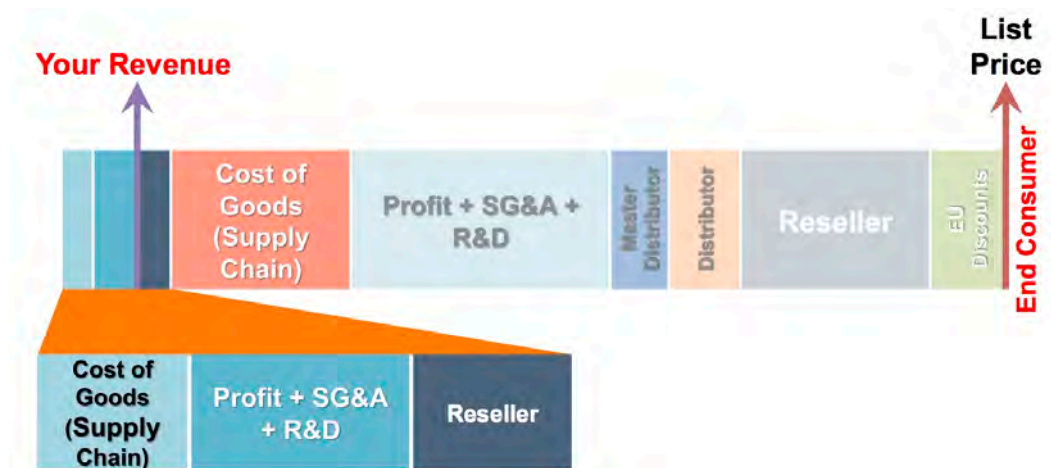
Class 4

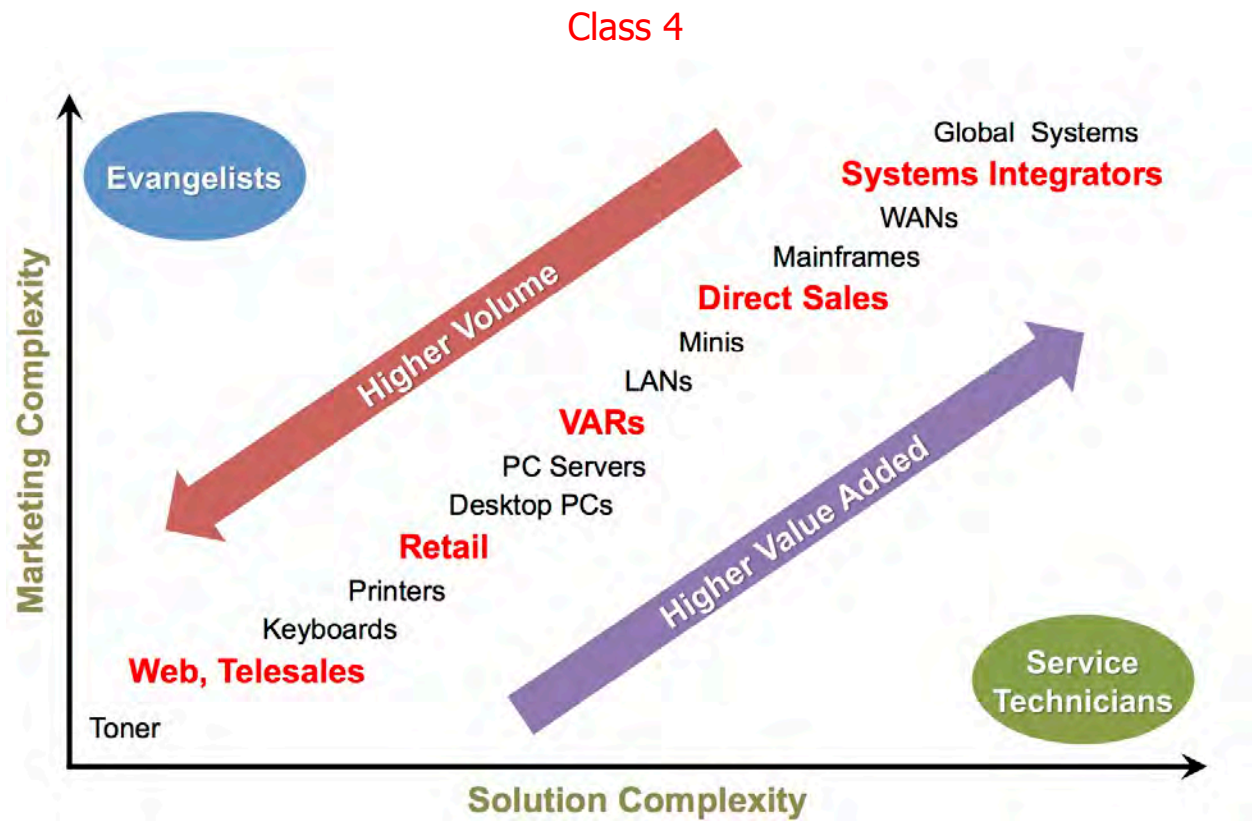


Ensure students understand direct sales channel economics.



Ensure students understand reseller channel economics.

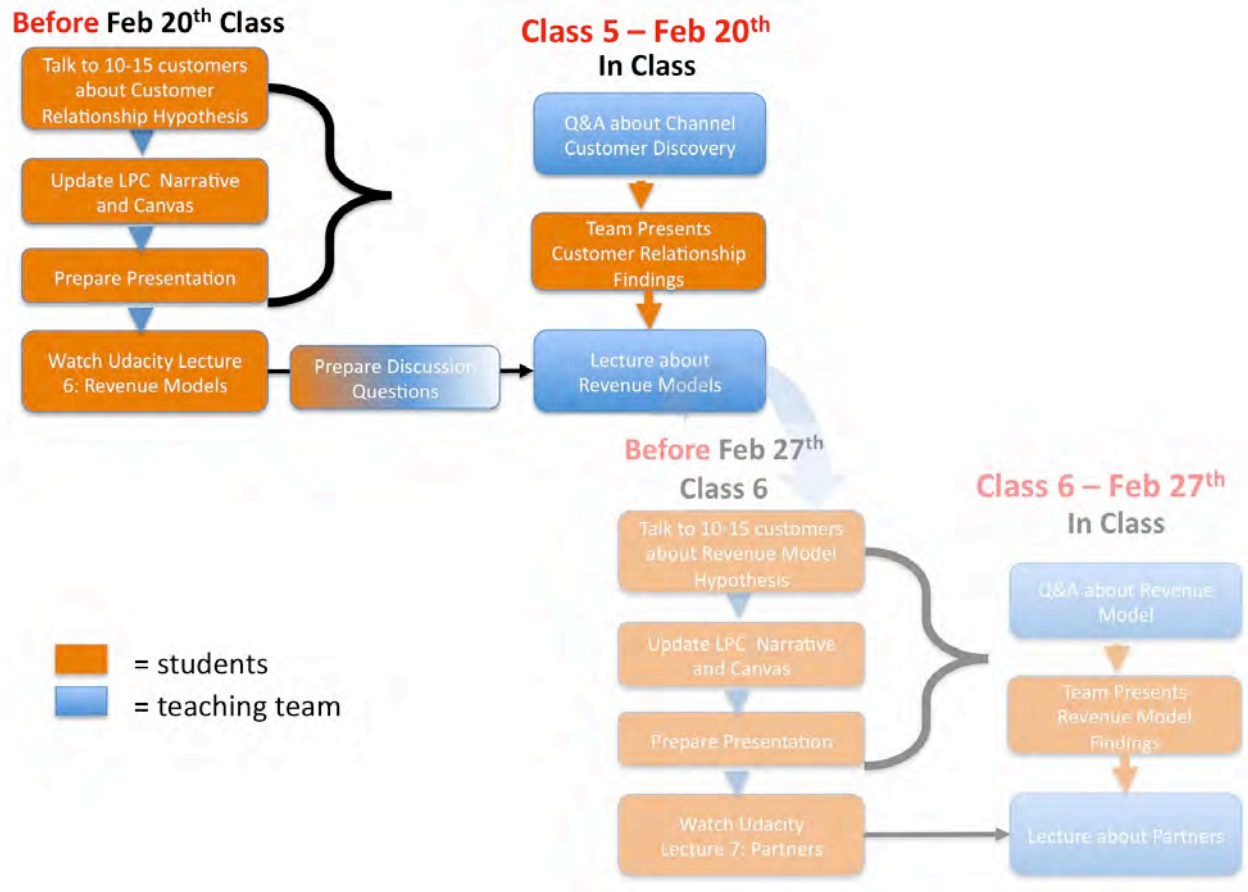




Ensure students understand channel versus product complexity.

Class 5

Class 5: Customer Relationships (Get/Keep/Grow)



Teaching Objectives: *Customer Relationships*

- Continue the pace of discovery, customer calls, insights, and critiques.
- Focus on helping teams through the “trough of despair.” Don’t be afraid to suggest that a “restart” might be in order for some teams.
- For web/mobile startups this week will really show who’s doing the work.

General Updates

- Make sure teams continue to:
 - Annotate the Business Model Canvas with updates.
 - Update LaunchPad Central Customer Discovery narrative and Profile.
 - Keep pushing teams to draw diagrams: **if you can’t draw it, you don’t understand it.**
- Acknowledge that you’ve read their blog.

Class 5

Why?

Searching for a Business Model

Search versus execution means you go down a lot of false paths. Students will investigate a lot of blind alleys. Change, disappointment, surprises, and failures are part of the startup process.

Get, Keep, and Grow

"Get, Keep, and Grow" are among the most important hypotheses for any startup to test.

- Customer relationships are the result of a complex interplay among customers, sales channel, Value Proposition, and marketing budget.
- Businesses that successfully "Keep" their customers focus heavily on retention strategies, tactics, and metrics such as purchase patterns, cohort analysis, complaints, and participation in "Grow" efforts, among others.
- Multi-sided markets need separate "Get," "Keep," and "Grow" strategies (e.g., users and payers).

How? Have Teams Present *Customer Relationships* Results

- Slide 1: Title slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3-n: What were your pass/fail metrics for each "Get" test/methodology?
 - What is your customer acquisition cost?
 - What is your customer lifetime value?
 - Build demand creation budget and forecast.
- Slide 4: What did you learn about your Customer Relationships (Get/Keep/Grow)?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Slide 5: Diagram Get/Keep/Grow and annotate it with the key metrics.
- For web teams: Demo working web site and analytics up and running.
- Show where your visitors are coming from (marketing campaign, search engine, etc.) and how their behavior differs:
 - What were your hypotheses about your web site results?
 - Show "search engine marketing" (SEM) results.

For physical products, show demo prototype, model, and/or crowd funding campaign.

Customer Relationships Key Concepts

Be sure to get these **Big Ideas** across as you critique the team presentations.

Demand Creation—Drives Customers to Chosen Sales Channels

- Tactics: earned and paid media and marketing, online tools. How to *Get* customers into their sales channel and move them successfully through the sales cycle.

Class 5

- How to *Keep* them as customers *and* how to *Grow* additional revenue from those customers over time.
- How to develop “get customer” experiments to determine tactics that move customers into and through the sales funnel in a repeatable and scalable way.
- The concept of “Lifetime Value of a Customer” (LTV) and how to calculate this figure and incorporate it into their customer acquisition strategies.
- Get/Keep/Grow needs to match their channel and Customer Segments.
- Startups need to understand the sales cycle to “Get, Keep, and Grow” a customer for their relevant market:
 - Get customers in physical channels: Awareness, Interest, Consideration, Purchase.
 - Get customers in web/mobile channels: Acquisition, Activation.
- Customer Acquisition Costs (CAC) and how to model/calculate:
 - Test your way to getting a good handle on CAC, this can put you out of business faster than anything else.
 - How do you validate, then scale a bit, then revalidate to be sure you have a business.
- Retention strategies and tactics: make sure attrition and churn is understood.
- How demand creation differs in a multi-sided market.

Common Student Errors on the *Customer Relationships* Presentation

- *Every* Customer Segment needs its own Get/Keep/Grow strategy and tactics.
- Much like channels, students tend to pick “all of the above” for customer relationships on day one. “We’re going to use SEO, SEM, PR, banner ads, word of mouth, billboards and print ads day one” —usually is too much at first.
- For web/mobile—failure to get a working site up and running fast enough to test and understand what the usage data says about the potential economics (bounce rates, page views, engagement stats, repeat visits, etc.).
- Failure to run any customer acquisition tests.
- Vague data from the tests.
- Little to no insight from the data.
- Did not articulate pass/fail tests for acquisition/activation texts.
- To most, marketing is even more of a mystery than sales.
- Do they understand why/how customers buy today?
- Let them know that the funnel is their magic decoder ring to marketing.
- Students often do not understand the difference between customer “acquisition” and customer “activation” for Web/mobile startups.
- Online marketing can be important, even if the product and sales channels are physical.
- Ask: “Do you know what your customers read, what trade shows they attend, what gurus they follow, and where they turn for new product information?”
- Ask: “What earned media activities do you plan to do for your startup? What do you hope to achieve?”
- Even though they won’t have time to do real demand creation, they need to grasp the concepts of Get/Keep/Grow, CAC, and LTV.
- Ensure their diagrams show funnel and real dollar figures for costs.
- Students confuse the channel with the users of the product.
- Did they draw a sales funnel diagram? With CAC and LTV?

Class 5

Advanced Lecture: *Revenue Streams*

- Assume the students have watched the *Revenue Streams* lecture before class
- The advanced lecture is **your** opportunity to **add additional information** on top of the Course video lecture.
- You can structure this as industry specific lectures (e.g., hardware, life sciences).
- This is the opportunity to get specific about how companies in your segment make money. Give lectures on revenue models (e.g., licensing, freemium, leasing, direct sales) appropriate for the class. Differentiate revenue model from pricing tactics.

Reading for Feb 21st for *Revenue Model*

- SOM pp. 180-188: Revenue and Pricing Hypotheses; pp. 260-269: Verify Business Model; pp. 438-456: Metrics that Matter; and pp. 528: Validate Financial Model

Presentation for *Revenue Model*

Students should:

- Talk to at least 10 potential customers. Fifteen is the goal.
- Test revenue model and pricing in front of 100 customers on the Web, 10-15 non-Web customers.
- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3: What were your hypotheses about revenue model strategy and pricing tactics?
- Slide 4: What experiments do you run to test your Revenue Model and Pricing?
- Slide 4: Diagram of payment flows
- Slide 5: What are the metrics that matter for your business model?
- Slide 6: Rough three-year income statement to show you have a real business with your revenue model, channel, acquisition costs, etc. (Top line revenues, gross margins, significant costs [marketing, engineering, etc.] and hypothetical bottom line potential)
- Slide 7 - n: What did you learn about your Revenue Model and Pricing?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Post discovery narratives on Launchpad Central.

Viewing on Feb 26th

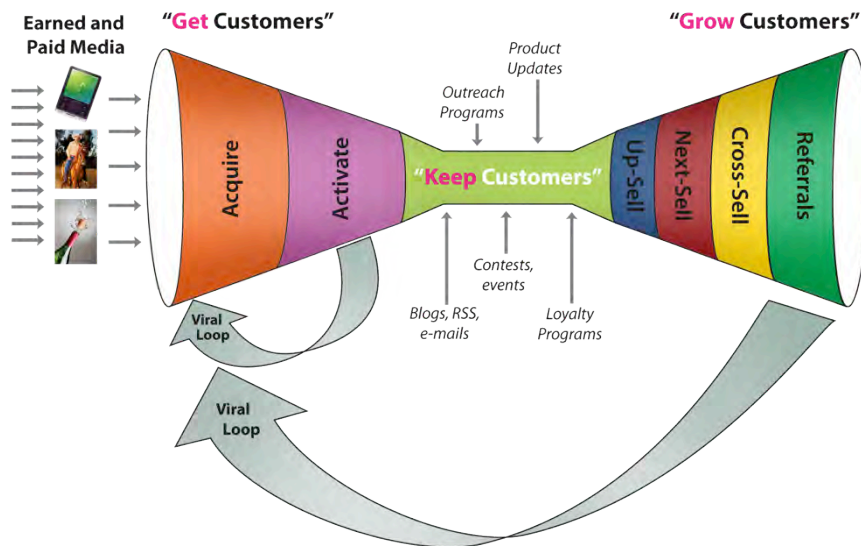
Students should:

- Watch Course video Lesson 7: *Partners*
- Submit their question assignment in advance of class:
What are the most important things you need from partners? Why?

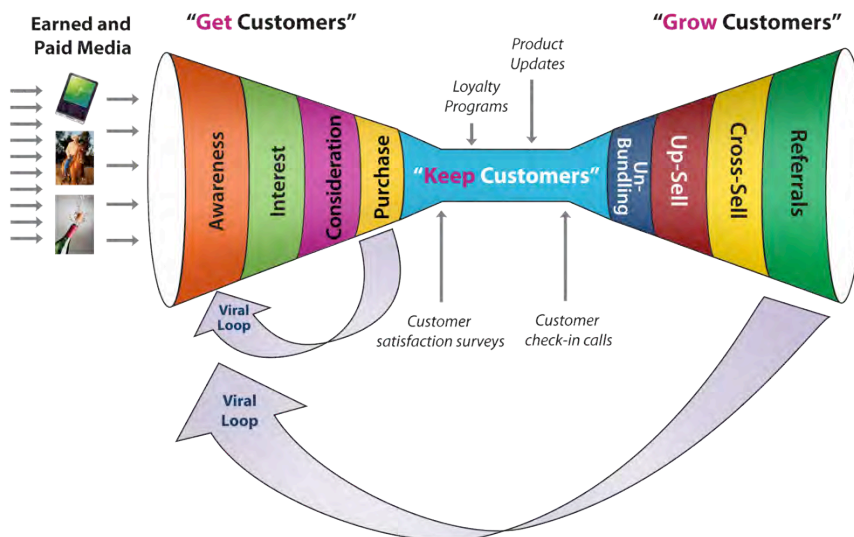
Class 5

NOTE to Instructors: Send your mentors your weekly advanced PowerPoint slides, and a reminder for the mentors to stay current on the Course video lectures and *SOM* readings so the mentor is speaking the same vocabulary as their team(s).

Class 5: Key Get/Keep/Grow Concepts



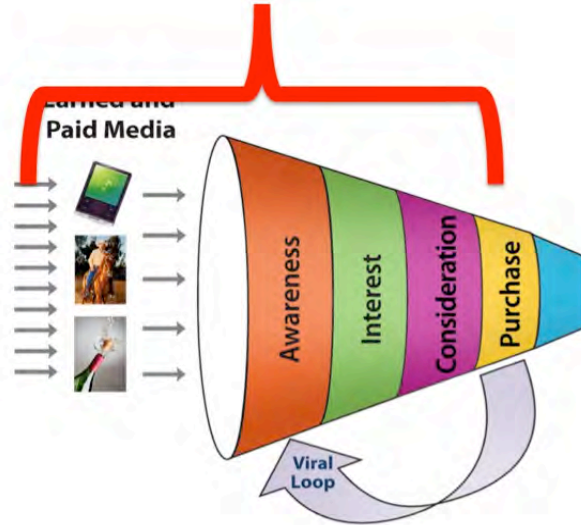
Ensure students understand how to Get/Keep/Grow customers on the Web.



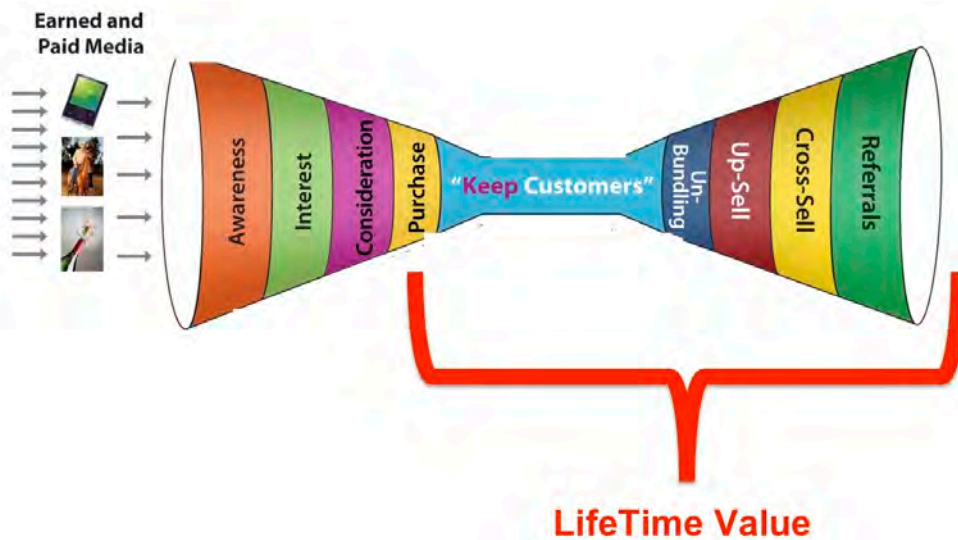
Ensure students understand how to Get/Keep/Grow customers for physical channels.

Class 5

Customer Acquisition Cost

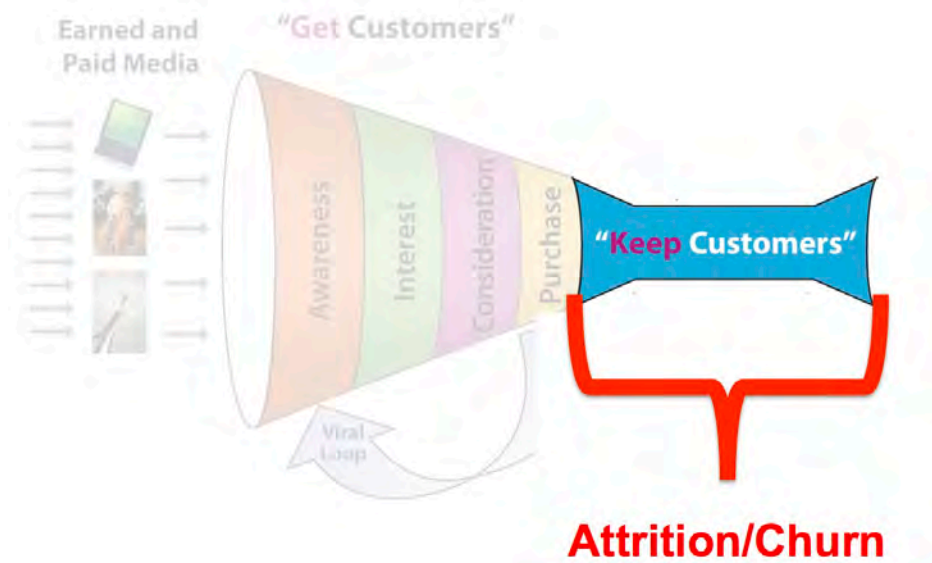


Ensure students understand Customer Acquisition Cost.

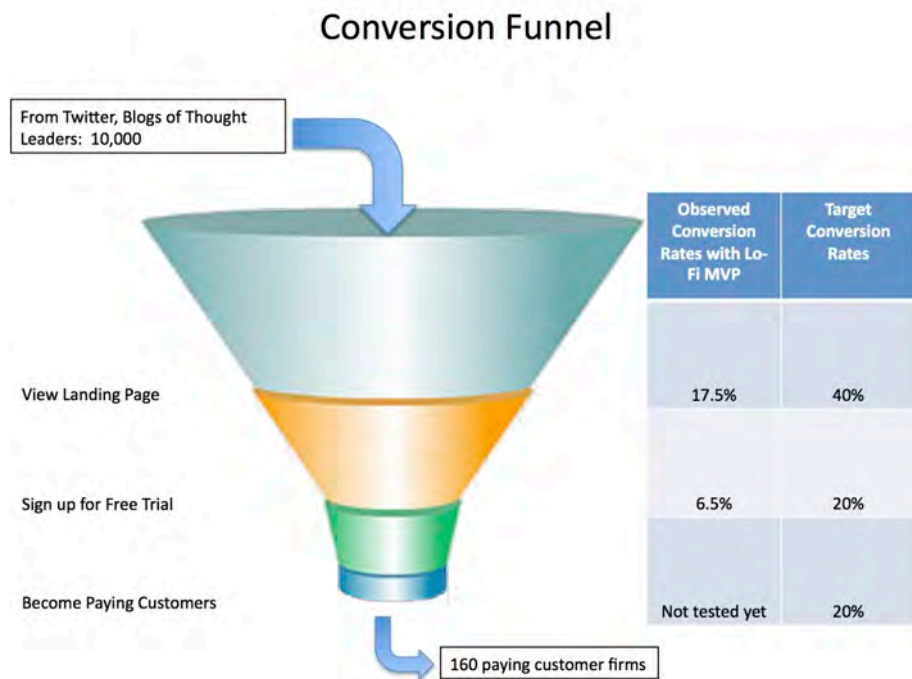


Ensure students understand Lifetime Value.

Class 5

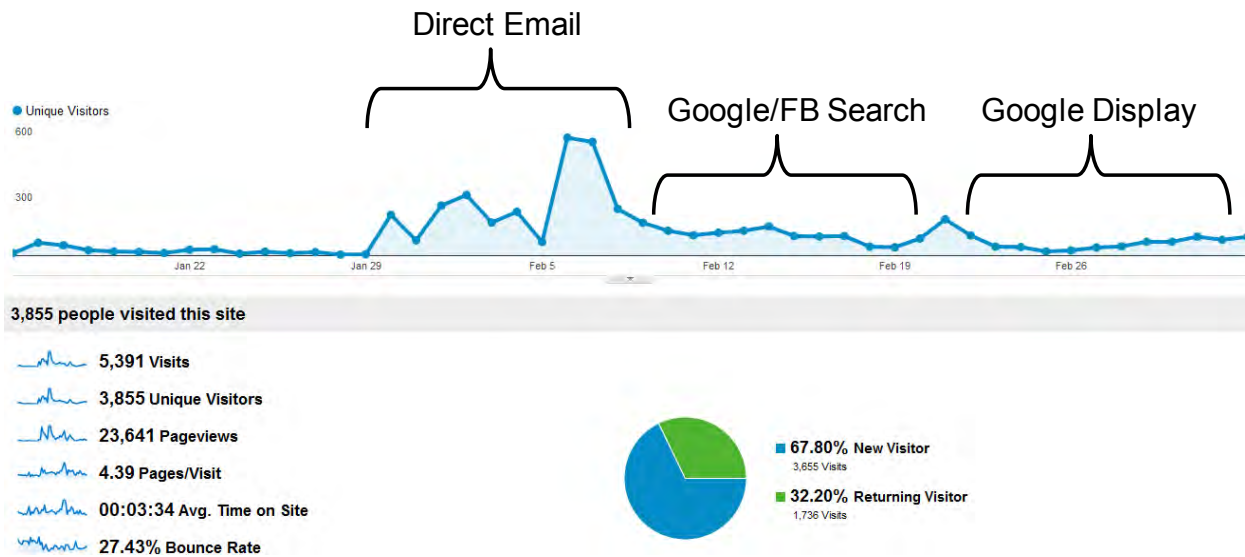


Ensure students understand attrition/churn.

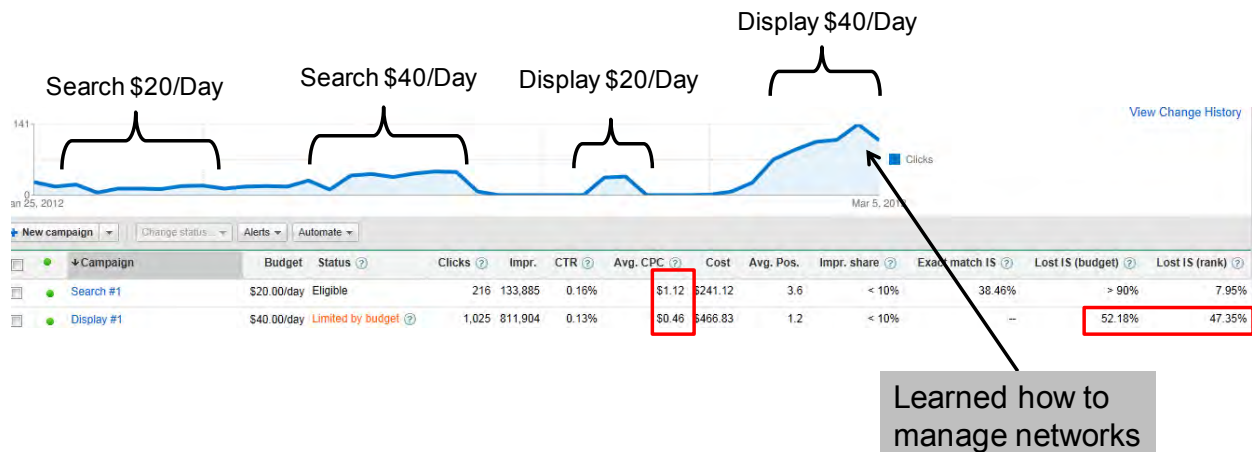


Class 5

STEP #3A: COMMUNICATING WITH TARGET MARKET



Key Learning #3: Direct email is the most efficient way for us to generate traffic, but without partners, this approach isn't scalable



Key Learning #4: We can scale display advertising to meet our goal of 300 new visitors/day...and we think we can afford it

What We Learned: Lifetime Value

We provide storage: AWS

Assumptions:

- 5% conversion rate from pricing test
- Percent at each pricing tier:



ARPU: \$14.27

Lifetime: 120 months

Gross margins: 26%

CLTV: \$431

We use Dropbox storage

Assumptions:

- Same conversion rate
- Two tiers
- Same percentage breakdown (top two tiers combined)



ARPU: \$7.13

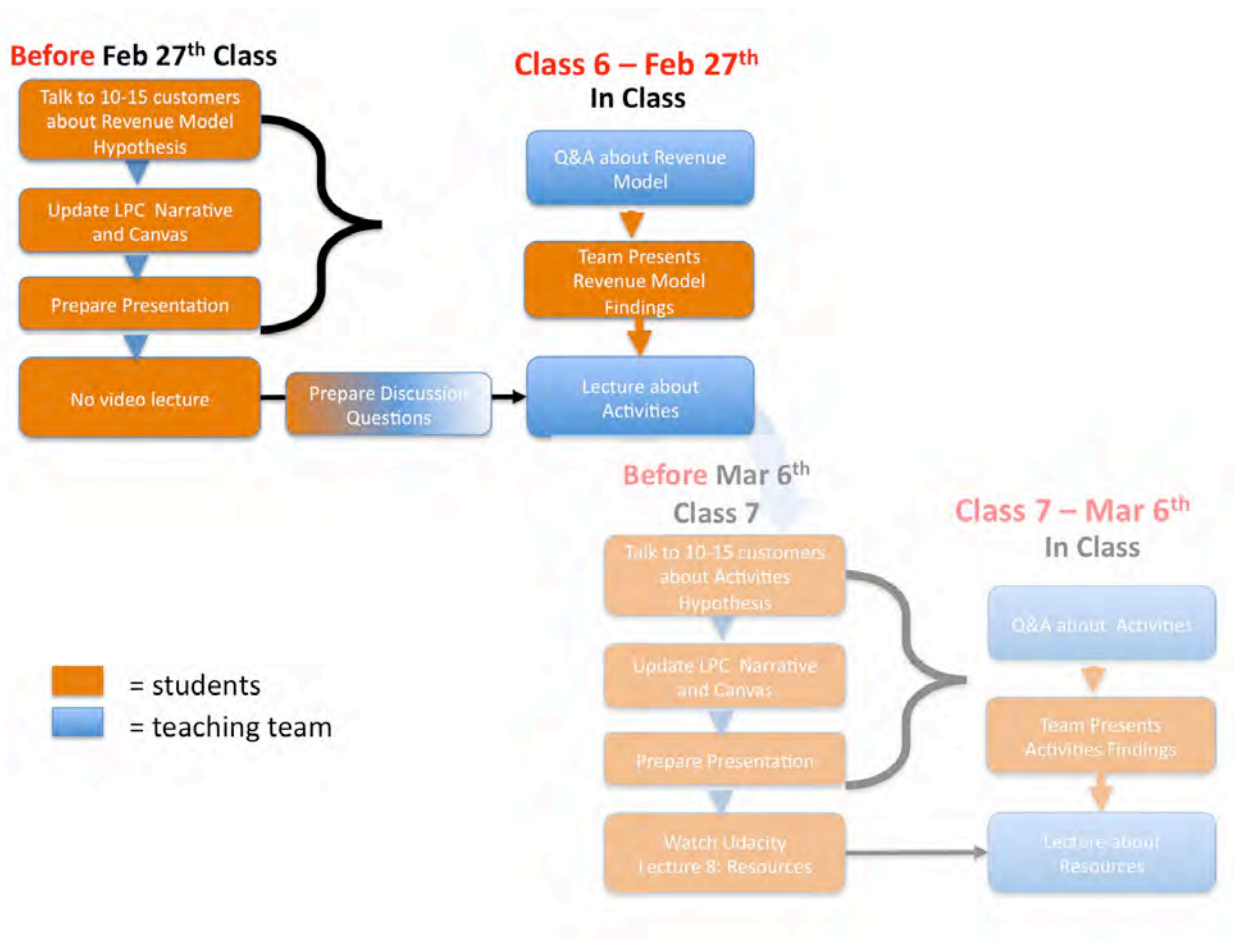
Lifetime: 120 months

Gross margins: 75%

CLTV: \$640

Class 6

Class 6: Revenue Streams



Teaching Objectives: *Revenue Streams*

- Teams should be showing some real progress: they should now have covered the right side of the canvas with Revenue Streams, and should have a basic handle on their key business metrics and economic levers.
- Realize some teams are still in the “trough of despair.”
 - Do not give up on the ones who seem lost; about half of those will surprise you.
 - For some, you may have to “force a pivot,” they are running out of time.
- Don’t let them slow down the pace of discovery and customer calls.
- Focus your main critique on their understanding of how they’ll generate revenue.

Class 6

How? Have Teams Present *Revenue Streams* Results

- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3: What were your hypotheses about revenue model strategy and pricing tactics?
- Slide 4: What experiments do you run to test your Revenue Model and Pricing?
- Slide 4: Diagram of payment flows.
- Slide 5: What are the **metrics that matter** for your business model?
- Slide 6: Updated rough three-year income statement to show you have a real business with your revenue model, channel, acquisition costs, etc.
- Slide 7 - n: What did you learn about your Revenue Model and Pricing?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Post discovery narratives on Launchpad Central.

Revenue Streams Key Concepts

Offer these **Big Ideas** as you critique the teams: Revenue model = the strategy the company uses to generate cash from each Customer Segment: e.g., Direct Sales, licensing, subscription.

- Within the revenue model, how do I price the product?
 - Pricing is a *tactic*.
 - Revenue model is the *strategy*.
- Every Customer Segment needs a revenue model (zero or free is ok, as long as someone is paying).
- This is not about income statement, balance sheet, and cash flow. Those are operating details that are derived after a proven revenue model and pricing.
- Types of revenue streams.
- Revenue models.
- Pricing tactics.
- Physical versus Web/mobile revenue models and multi-sided market revenue models.

Common Student Errors on the *Revenue Streams* Presentation

- Much like channels and customer relationships, students tend to pick “all of the above” for revenue models on day one. “We’re going to license, have a direct sales force and use affiliates.” Almost always too much in the first year.
- Is it unclear why they selected a specific revenue model?
- Do they understand why/how customers buy today?
- What do they pay today?
- When do they pay? How important is working capital?
- What do competitors charge?
- Does it result in a large company? Sufficient profit?
- Students confuse pricing *tactics* with revenue model *strategy*.

Class 6

- Students price on cost versus value.
- No appreciation of competitive pricing or offerings revenue adds up to a small business.
- Business too small for a company and should focus on licensing.

Advanced Lecture: *Activities and Resources*

- There is no Course video lecture on Activities, however...
 - Activities are the things the key things a startup needs to make the rest of the business model (value prop, channel, revenue) work.
- The advanced lecture is your opportunity to explain activities.
 - Customize to fit the teams in your class. For example: For example, key activities in Life Science startups include clinical trials, FDA approvals, software development, drug or device design, etc.
 - Activities are not the product/service described in the value prop, it's the unique expertise that the company has/needs.
- You can structure this as industry specific lectures (e.g., hardware, life sciences).
- This is the opportunity to get specific about how partners add value in the specific domains your teams are in: do they add content? Distribution? Supply chain?

Reading for Feb 28th for *Key Activities and Resources*

BOM

SOM

Presentation for Next Week's Class: *Key Activities and Resources*

Students should talk to at least 10 potential customers. Fifteen is the goal. Presentation format:

- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3-n: What were your hypotheses about what key activities will you need?
 - **Diagram** the relationships of the key activities to each Customer Segment and Value Proposition
- Slide 4 - n: What did you learn about your Key Activities?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- **Post discovery narratives on Launchpad Central.**

Viewing on March 5th: *Key Activities and Resources*

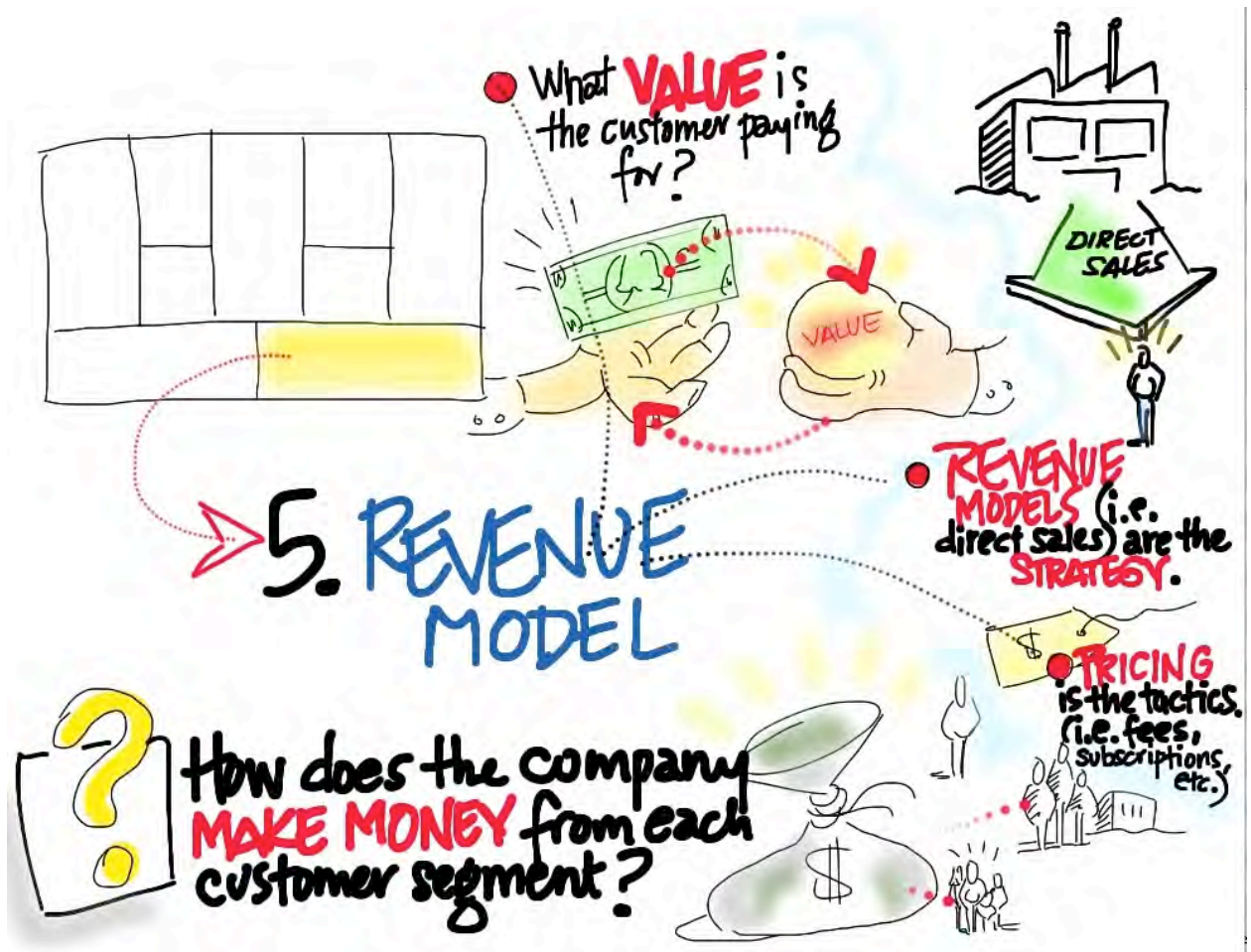
Students should:

- Submit their 100-word discussion question assignment in advance of class: What is (or will be) their venture's core competency? Is it vital to providing the Value Proposition? Why?

NOTE to Instructors: Send your mentors your weekly advanced PowerPoint slides, and a reminder for the mentors to stay current on the Course video lectures and *SOM* readings, so the mentor is speaking the same vocabulary as their team(s).

Class 6

Class 6: Key Revenue Concepts



Class 6

Revenue Model Choices		
Channel		
Product	Web	
	Physical	
	Bits	Physical
	Physical	Physical
	<ul style="list-style-type: none">▪ Direct Sales<ul style="list-style-type: none">▪ Products▪ License▪ Subscription▪ Upsell/Next Sell▪ Ancillary Sales:<ul style="list-style-type: none">• Referral revenue• Affiliate revenue• E-mail list rentals• Back-end offers	<ul style="list-style-type: none">▪ Direct Sales<ul style="list-style-type: none">▪ Products▪ Subscription▪ Add-on services▪ Upsell/Next Sell▪ Referrals
		<ul style="list-style-type: none">▪ Direct Sales<ul style="list-style-type: none">▪ Products▪ Service▪ Upsell/Next Sell▪ Referrals▪ Leasing

Wireframes & Development

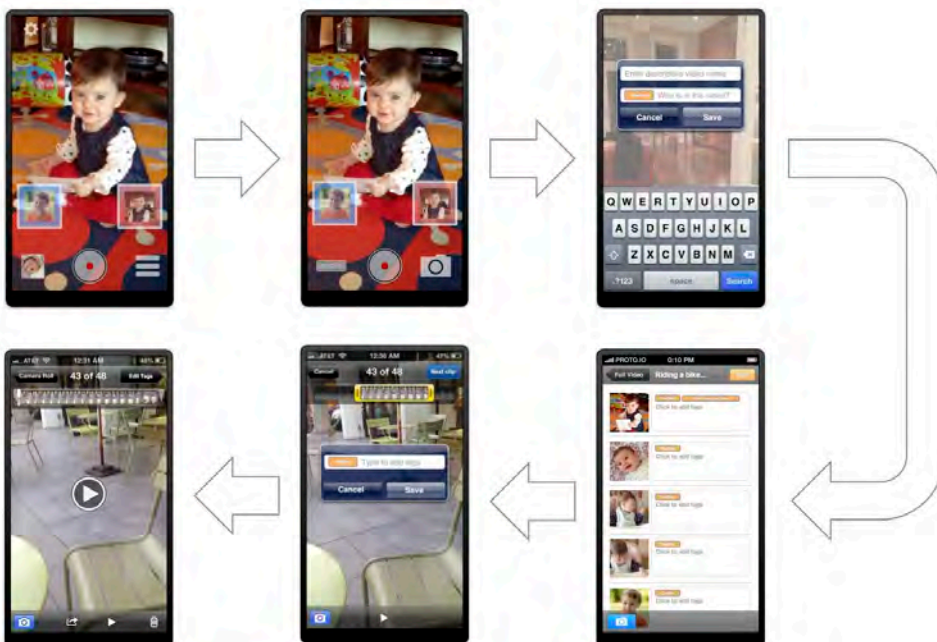
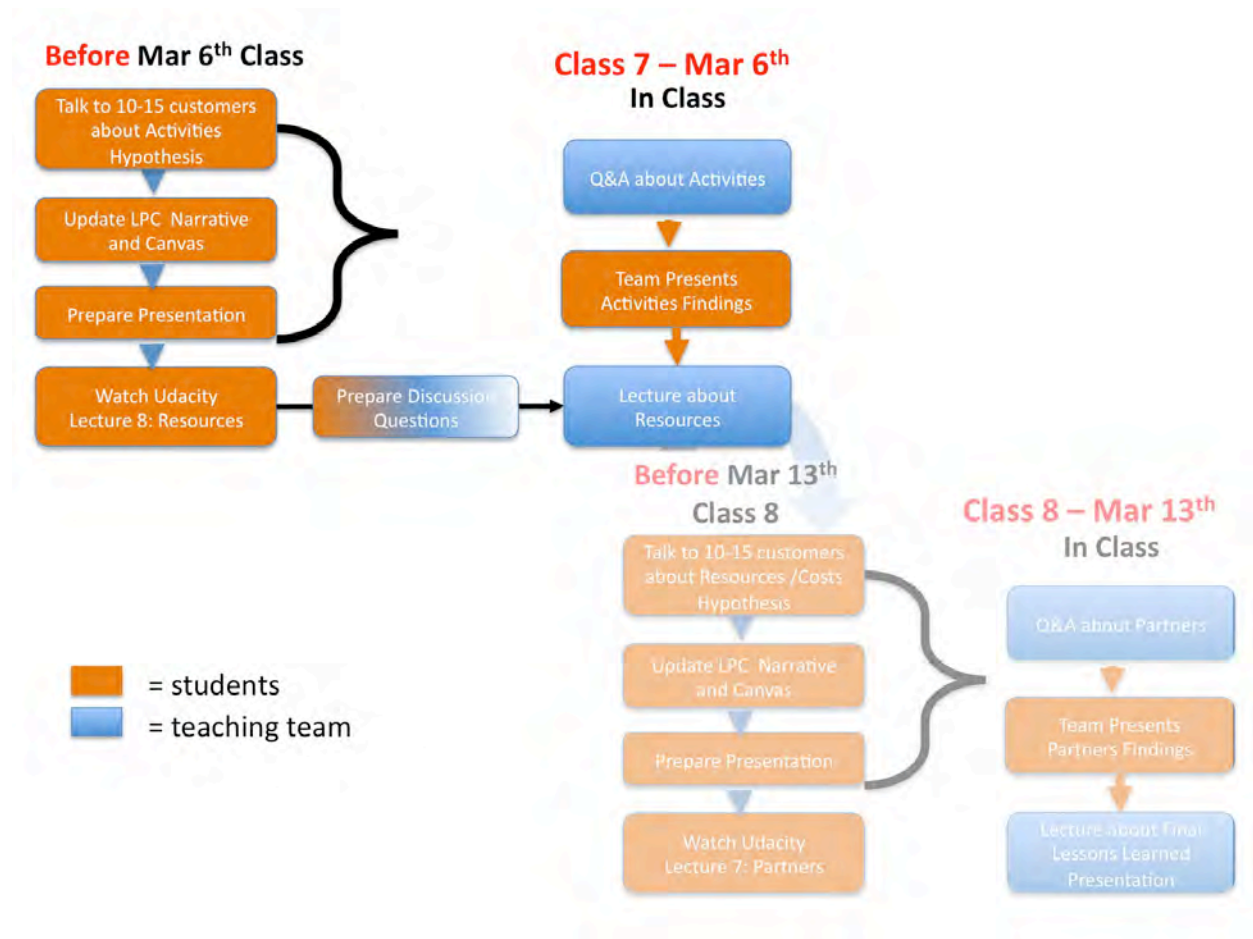


Figure 15. Wireframes Continue to Evolve

Class 7

Class 7: Key Activities



Teaching Objectives: Key Activities

- Activities are the things the key things you need to do to make the rest of the business model (value prop, channel, revenue) work.
 - For example, clinical trials, FDA approvals, software development, drug or device design, etc. It's not the product/service described in the value prop, it's the unique expertise that the company has/needs.
- "How these activities get accomplished" are a function of resources and if necessary partnerships.
- Comment on other egregious parts of the canvas as necessary.

Class 7

How? Have Teams Present on Activities

- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3-n: What were your hypotheses about what key activities will you need?
 - **Diagram** the relationships of the key activities to each Customer Segment and Value Proposition
- Slide 4 - n: What did you learn about your Key Activities?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next

Activities Key Concepts

Offer these **Big Ideas** as you critique the teams:

- The types of activities: Manufacturing? Supply chain? Problem solving?
- The effect of people upon the culture of the startup. Students should be able to enumerate the ways in which a startup's intellectual property can be protected.
- Intellectual property protection. The assumptive path (patents) may not be the right one to choose at this stage.

Common Student Errors on the Activities Presentation

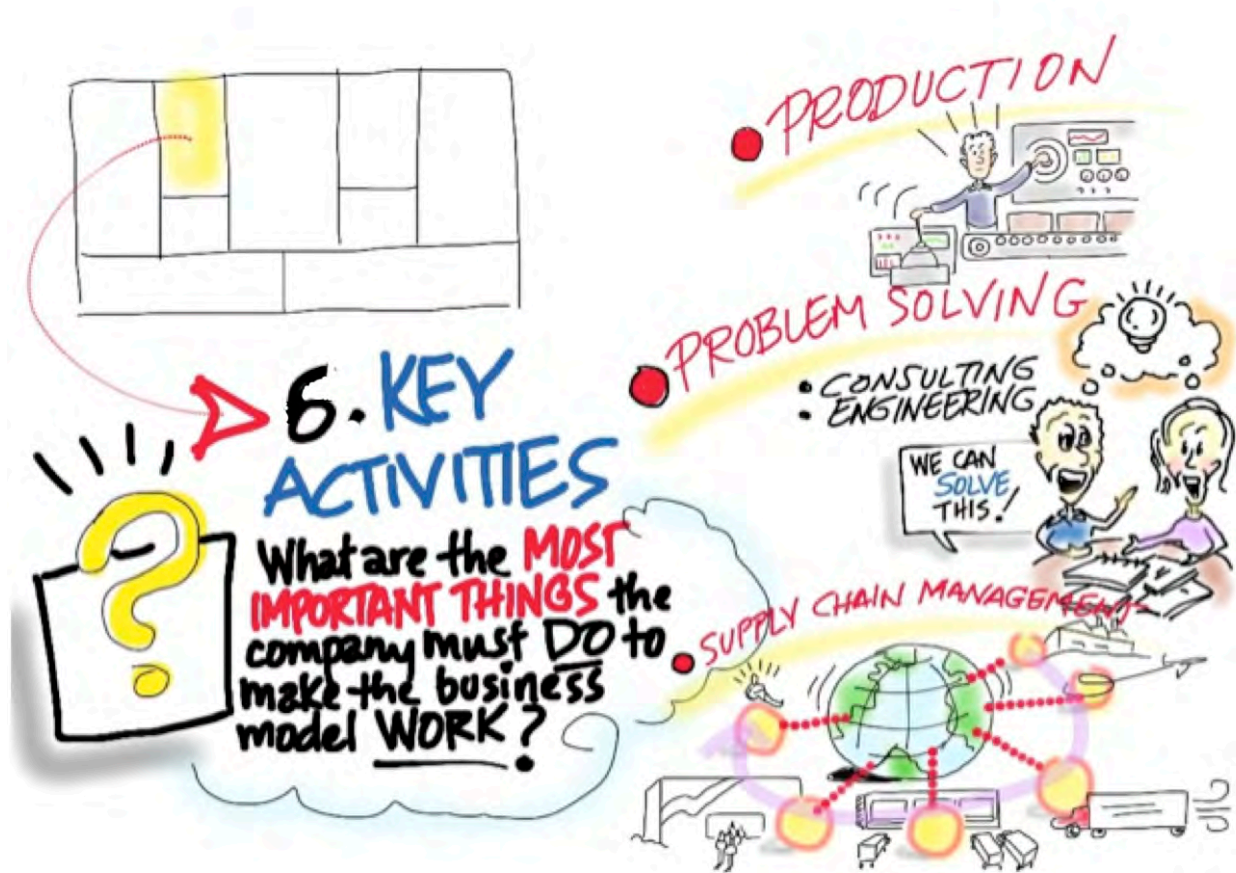
- What activities do they need to perform to build this business? How many people? What kind?
 - When will they have to perform these activities?

Viewing for March 14th: Watch Other Teams' Final Presentations

See <http://www.slideshare.net/sblank/> for examples.

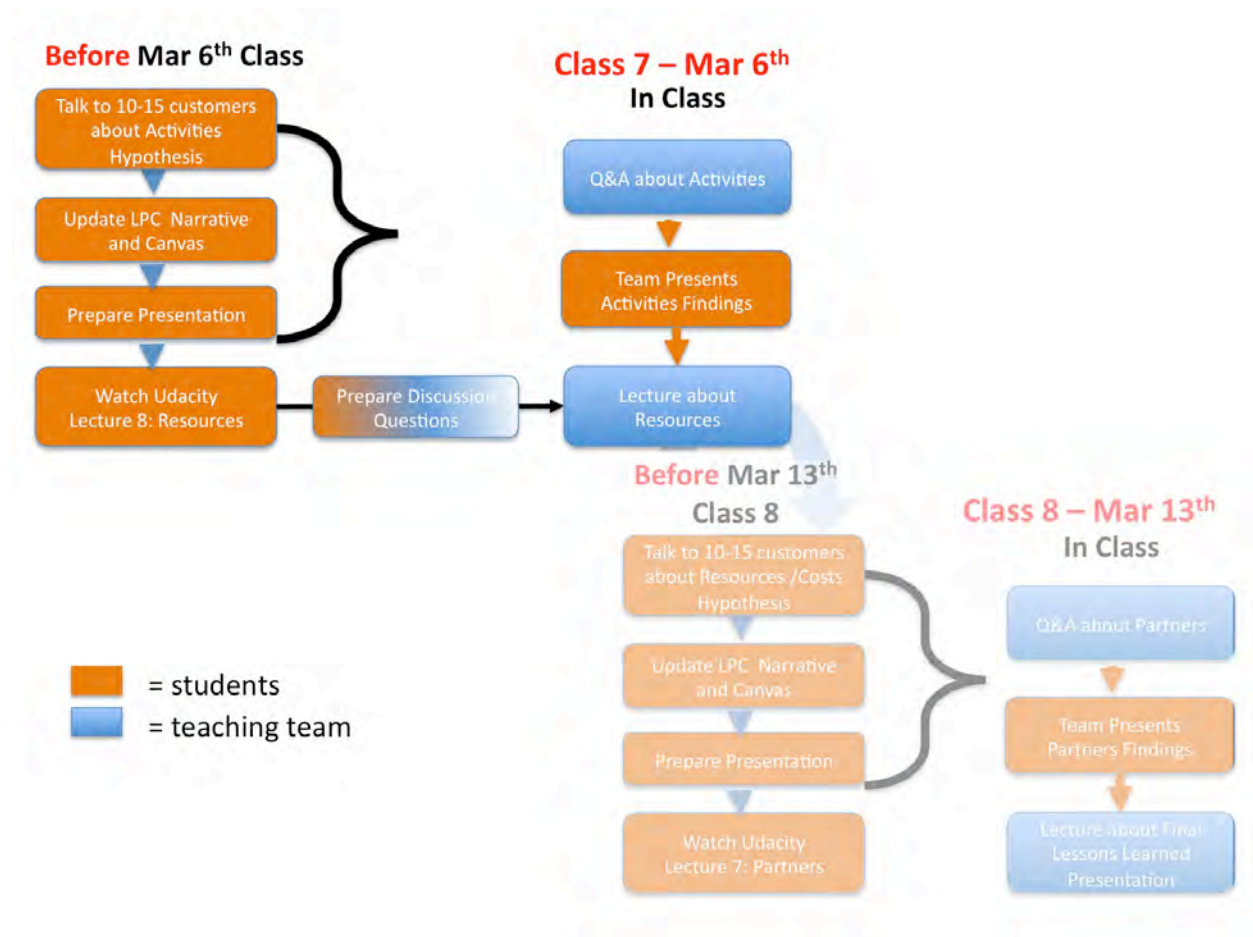
Assignment

- Students should keep talking to at least 10 customers per week. Fifteen is the goal.



Class 8

Class 8: Resources



Teaching Objectives: *Resources*

- Teams will want to slow down or stop calling customers. Don't let them slow down the pace of discovery and customer calls.
- Focus your main critique on their understanding of partners.
- Comment on other egregious parts of the canvas as necessary.

How? Have Teams Present on Resources

Class 8

- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
 - Slides 3 –n:
 - Assemble a “Metrics that Matter” spreadsheet. Include people, hardware, software, prototypes, financing, etc.
 - What resources do you need to build this business? How many people? What kind?
 - **Diagram** the **finance and operations timeline**:
<http://steveblank.files.wordpress.com/2011/05/financial-and-ops-timeline.jpg>.
 - When will you need these resources?
 - Roll up all the costs from partners, resources, and activities in a spreadsheet by time.
- Slide 4 - n: What did you learn about your resources?
 - Hypothesis: Here’s What we Thought
 - Experiments: Here’s What we Did
 - Results: Here’s What we Found
 - Action: Here’s What we Are Going to Do Next

Resources Concepts

Offer these **Big Ideas** as you critique the teams:

- The four categories of resources: financial, physical, intellectual, human capital.
- The types of activities: Manufacturing? Supply chain? Problem solving?
- The effect of people upon the culture of the startup. Students should be able to enumerate the ways in which a startup’s intellectual property can be protected.
- Intellectual property protection. The assumptive path (patents) may not be the right one to choose at this stage.
- Costs: Fixed costs? Variable costs?
- How to add up all the costs. What would it take in terms of sales to achieve a break even? How long would this take? How much will this cost? Is this a business? Is it worth doing?

Common Student Errors on the *Resources, Activities and Costs* Presentation

- Do they have a “Metrics that Matter” slide?
- Do their metrics include people, hardware, software, prototypes, financing, etc.?
 - What resources do they need to build this business? How many people? What kind?
 - Diagram the finance and operations timeline.
 - When will they need these resources?

Viewing for March 14th: Watch Other Teams’ Final Presentations

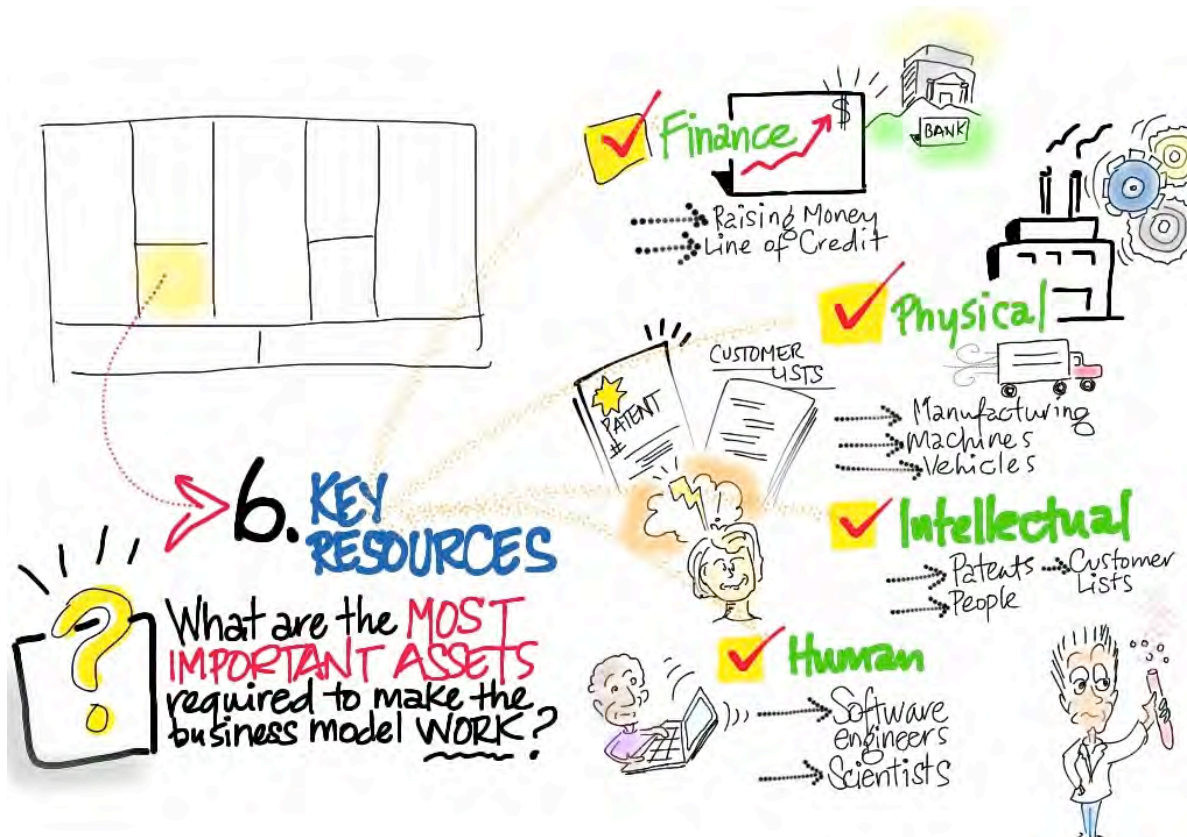
See <http://www.slideshare.net/sblank/> for examples.

Class 8

Assignment

- Students should keep talking to at least 10 customers per week. Fifteen is the goal.
- Final 10-minute presentation and a 2-minute video.

NOTE to Instructors: Send your mentors your weekly advanced PowerPoint slides, and a reminder that the mentors are welcome to attend the presentation training as well as their team's final presentation.



Class 8

Regulatory & Insurance Related Findings

In Clinic Product:

No FDA Approval Needed

Existing CPT Codes:

97001 Physical Therapy Evaluation
97002 Physical Therapy Re-Evaluation
97535 Self-care/home management training (ie. ADL's, safety procedures, instructions)
97116 Gait training
97750 Physical performance test or measurement (*not evaluation)

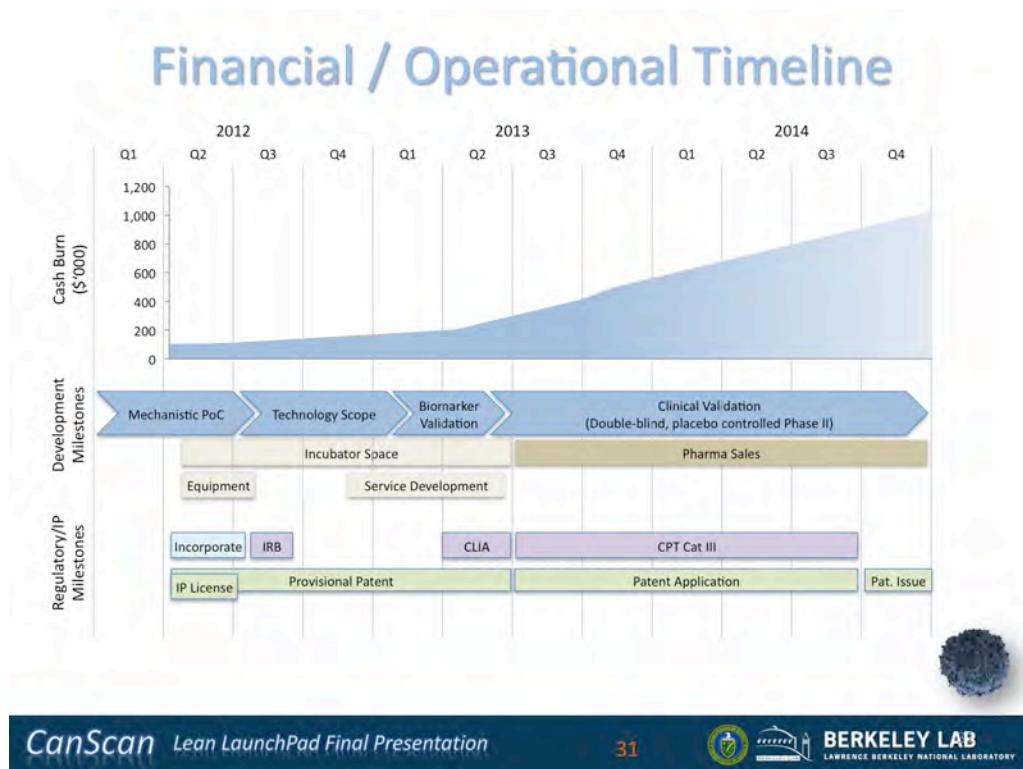
Consumer/ In Home Product:

Class	Description
1	Low risk – simpler in design → 510k exempt
2	Moderate risk – typically non-invasive → Subject to 510k submission, cleared by FDA
3	High risk – used to support life or prevent harmful medical conditions → Subject to full premarket approval by FDA

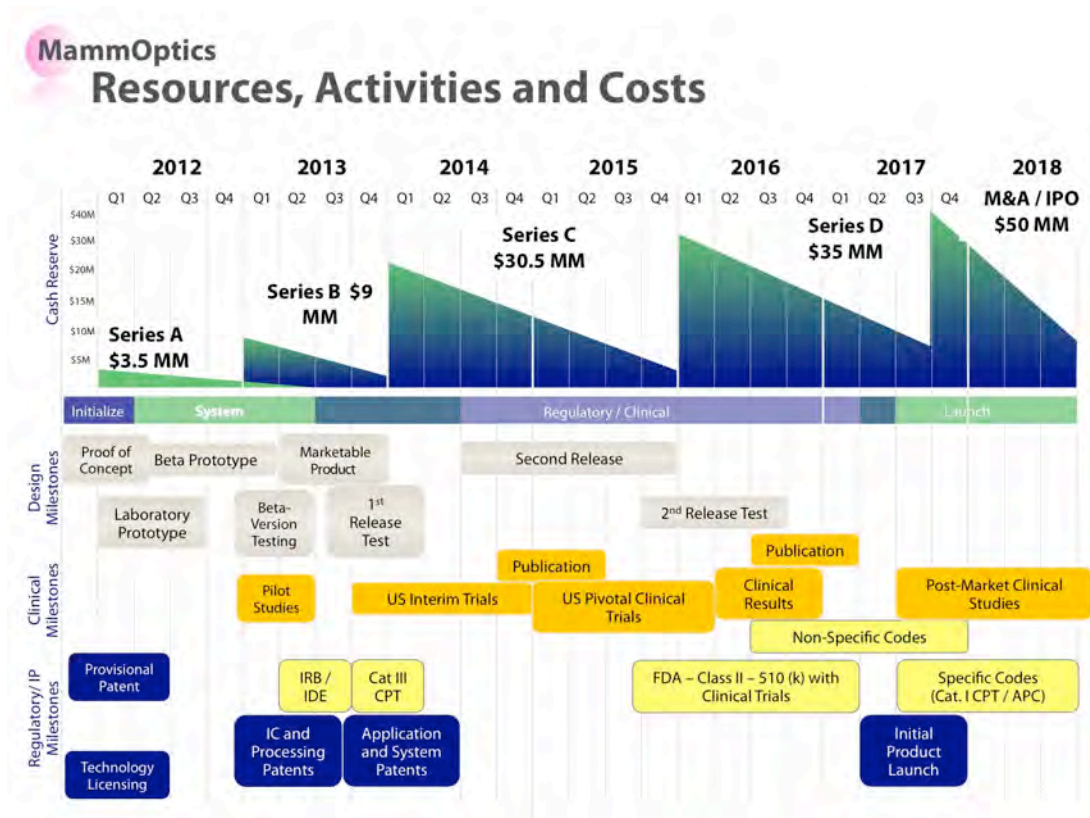


~ 2 years to
FDA 510k
clearance

Class 8



Class 8



Class 8

Class 9: Key Partners

Teaching Objectives: *Partners*

- By now, teams should have a good handle on the right side of the canvas.
- Partners is the class when they get serious about the left, supporting side of the canvas: Partners, Key Activities, Key Resources, and Costs.
- In some markets the left side of the canvas is where differentiation and innovation happens.
- This is the last possible time for teams to restart. Restarts mean rebuilding the entire canvas and all of the underlying assumptions.
- Teams should be showing some real progress:
 - Realize some teams are “just getting by.”
 - Do not give up on the ones who seem lost; about half of those will surprise you.
- Don’t let them slow down the pace of discovery and customer calls.

How? Have Teams Present *Partners* Results

- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slide 3-n: What were your hypotheses about what partners you will need?
- Why do you need these partners and what are risks?
- Why will they partner with you? What’s in it for them? Many teams confuse being a customer with being a partner. A true partner would identify YOU as a partner too.
- What’s the cost of the partnership?
- **Diagram** the partner relationships with any dollar, activity and value flows.
- What are the incentives and impediments for the partners?
- Slide 4 - n: What did you learn about your Partners?
 - Hypothesis: Here’s What we Thought
 - Experiments: Here’s What we Did
 - Results: Here’s What we Found
 - Action: Here’s What we Are Going to Do Next

Partners Key Concepts

Offer these **Big Ideas** as you critique the teams:

- Risks associated with having a partner and how to manage them.
- Offer suggestions on how a startup selects a partner.
- What alignment does this partner have with your customers?
- What need do you solve for this partner and how important is it to the partner?
- What economic benefit does this partner provide your business? What economic benefit does your business provide this partner?

Class 8

- How many partners are there like this?
- The differences between strategic alliances, competition, joint ventures, buyers, suppliers, and licensees.
- While partners are critical for large companies (most companies do not do everything by themselves), strategic alliances and joint ventures are not needed to serve Earlyvangelists. They are needed for mainstream customers.
- For startups, partners can monopolize your time.
- Partners must have aligned goals and customers.
- Some examples:
 - Partnership disasters: Boeing 787.
 - Strategic alliances: Starbucks partners with Pepsi, creates Frappuccino. Starbucks partners with Dryer's to create and market a line of Starbucks Ice Cream flavors.
 - Joint business development: Intel partners with PC vendors.
 - Coopetition: Automotive suppliers create AIAG.
- Key suppliers: Apple builds iPhone from multiple suppliers.

Common Student Errors on the *Partners* Presentation

- Common mistakes are thinking that a startup needs all its future partners now, or even in the first year. Often not true or needed to sell to Earlyvangelists.
- It may be that partners are important after they've find a repeatable and scalable business model. Or it might be that partners are important after they reach a certain size and scale. Students should think through why and when they need them.
- Differentiate partners needed for "optics" for financing or customers feeling comfortable, versus those really needed to scale the business.

Advanced Lecture: *Resources, Activities, and Costs*

- Assume the students have watched the *Customer Segment* lecture before class
- The advanced lecture is **your** opportunity to **add additional information** on top of the Udacity lecture.
- You can structure this as industry specific lectures (e.g., hardware, life sciences).
- FDA/FTC, other regulatory approval additional information goes here.
- Supply chain lectures.
- Finance lectures.

Reading for March 7th: *Resources, Activities, and Costs*

- SOM pp. 169-175: Resources; pp. 267-269: Can We Make Money; review again pp. 437-456: Metrics that Matter and pp. 528: Validate Financial Model
- Review Mark Leslie slides: <http://www.slideshare.net/markleslie01/0110-business-model02>

Class 8

Presentation for Next Week's Class: *Resources, Activities, and Costs*

Students should talk to at least 10 potential customers including potential partners, suppliers, and other Key Resources. Fifteen is the goal. Presentation format:

- Slide 1: Cover slide.
- Slide 2: Business Model Canvas with changes highlighted in red and multi-sided markets shown in different colors (these happen automatically within the LaunchPad Central platform)—is this a multi-sided market?
- Slides 3 –n:
 - Assemble a “Metrics that Matter” slide. Include people, hardware, software, prototypes, financing, etc.
 - What resources do you need to build this business? How many people? What kind?
 - Diagram the finance and operations timeline (see examples in Class 8).
 - When will you need these resources?
 - Roll up all the costs from Partners, Resources, and Activities in a spreadsheet by time.
- Did anything change about Value Proposition or Customers/Users, Channel, Demand Creation/Partners?
- Slide 4 - n: What did you learn about your resources, activities, and costs?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Post discovery narratives on Launchpad Central.

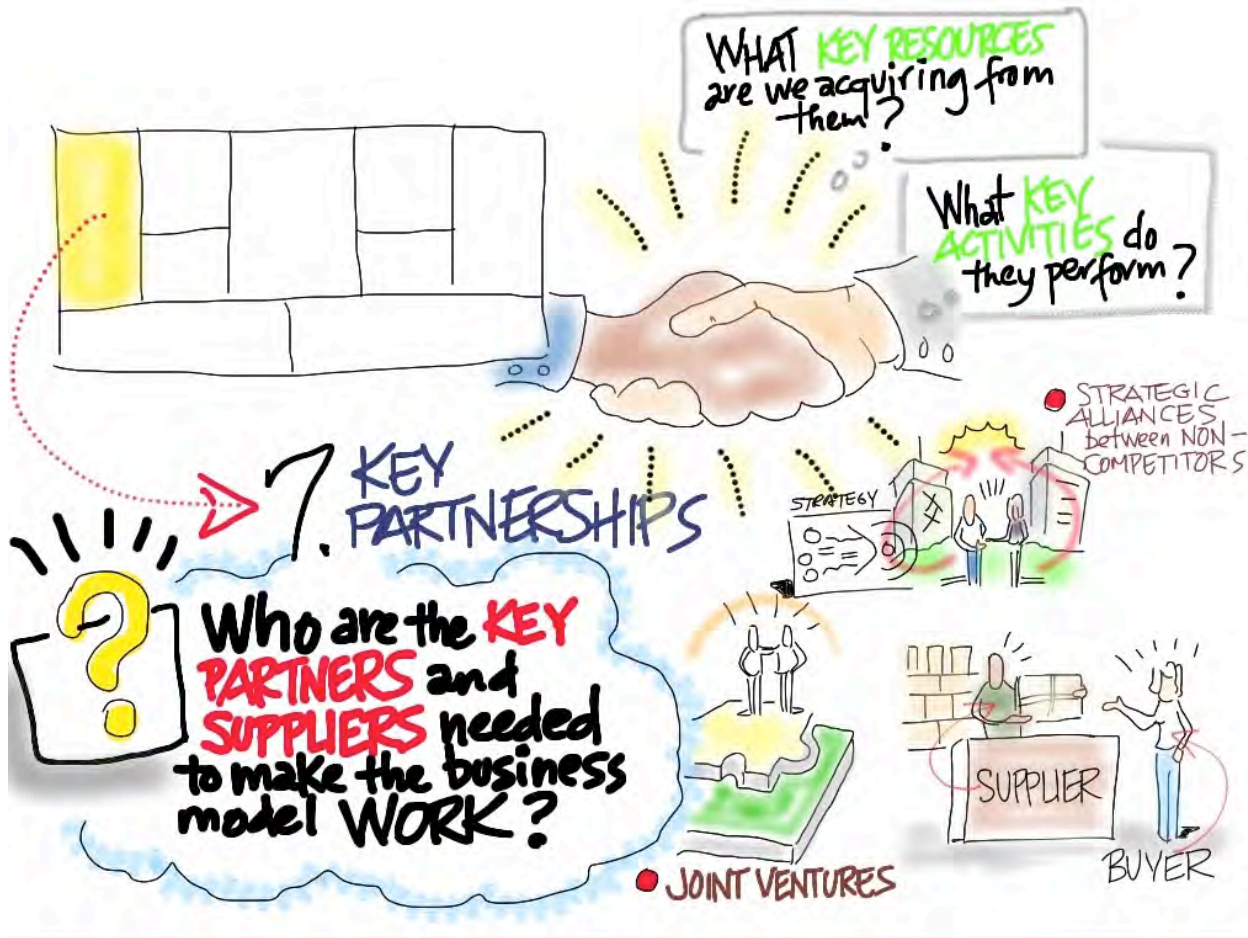
Viewing March 12th: Watch Other Teams' Final Presentations

See <http://www.slideshare.net/sblank/> for examples.

NOTE to Instructors: Send your mentors your weekly advanced PowerPoint slides, and a reminder for the mentors to stay current on the Udacity lectures and *SOM* readings, so the mentor is speaking the same vocabulary as their team(s).

Class 9

Class 9: Key Partners Concepts

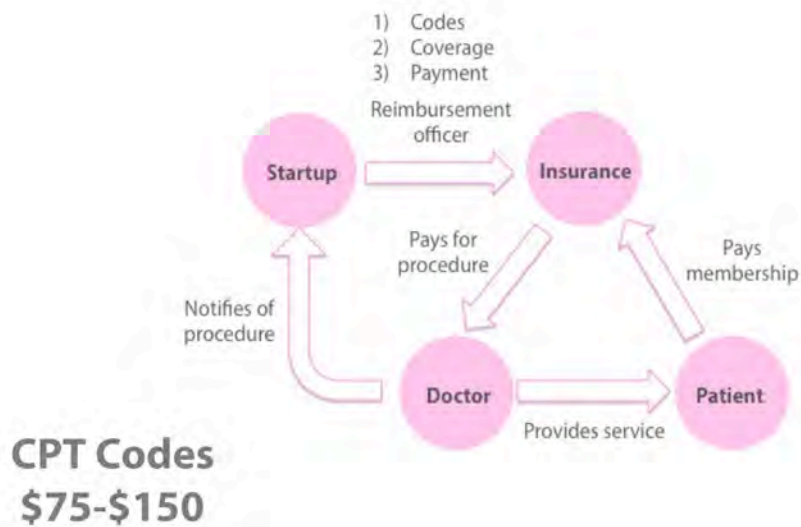


Class 9

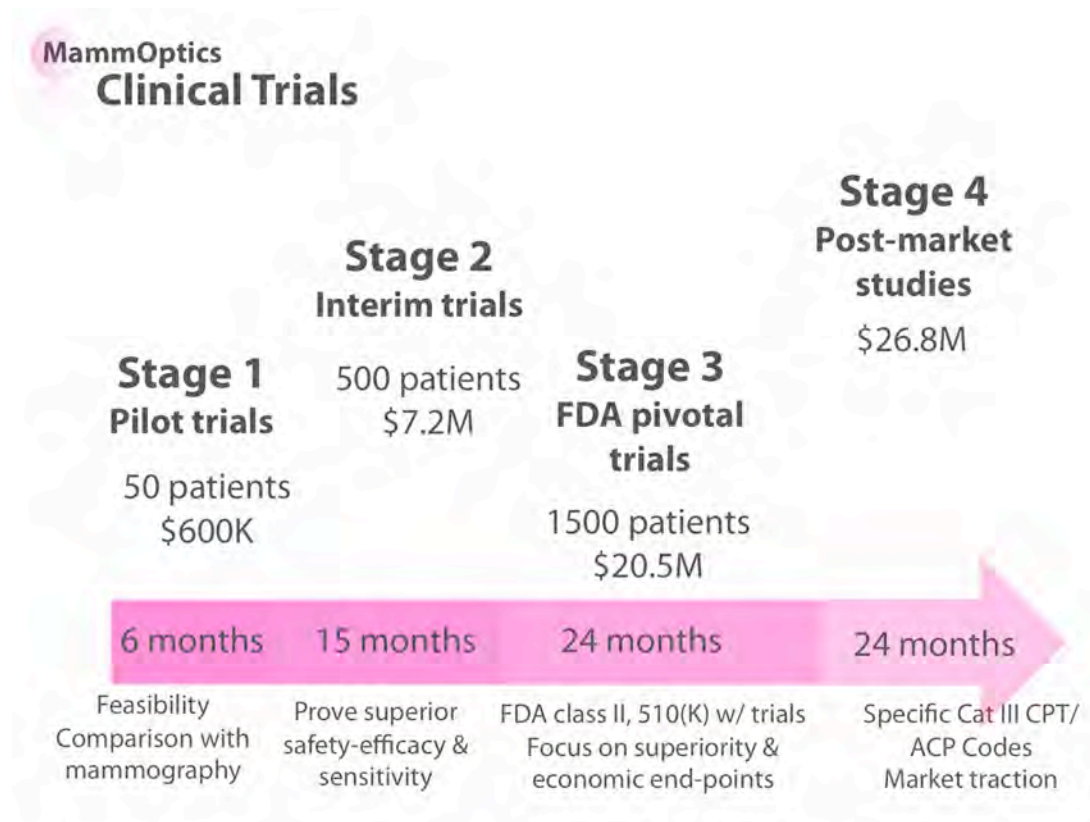
MammOptics Manufacturing Partner



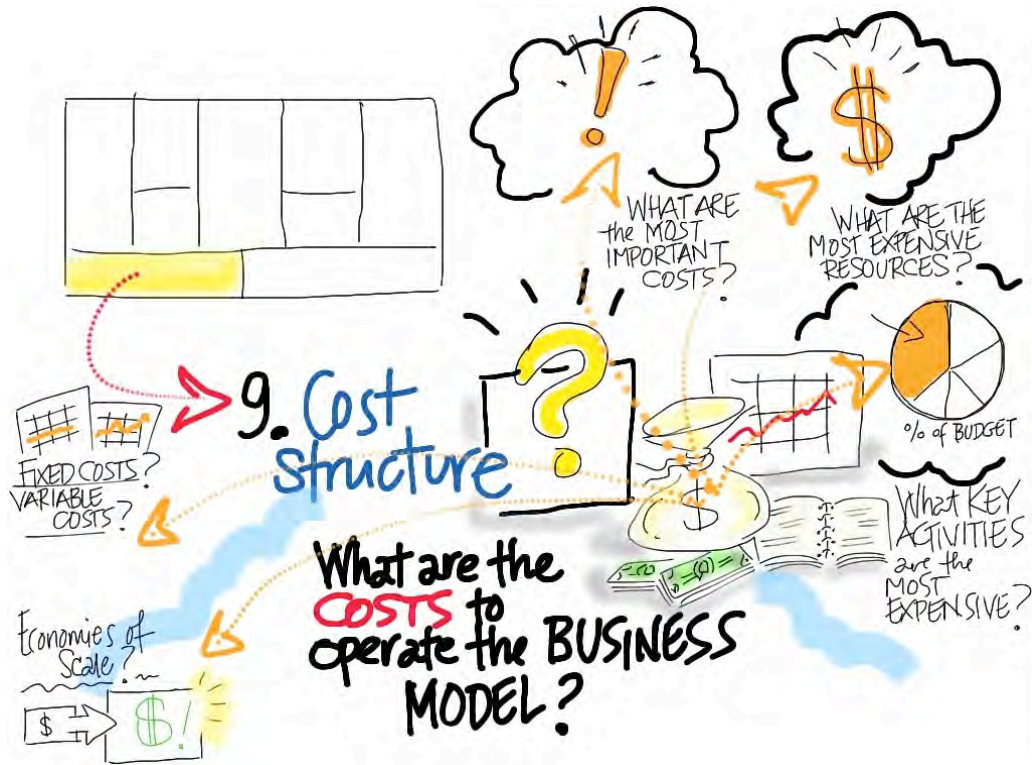
MammOptics Insurance Company - Reimbursement Partners



Class 9

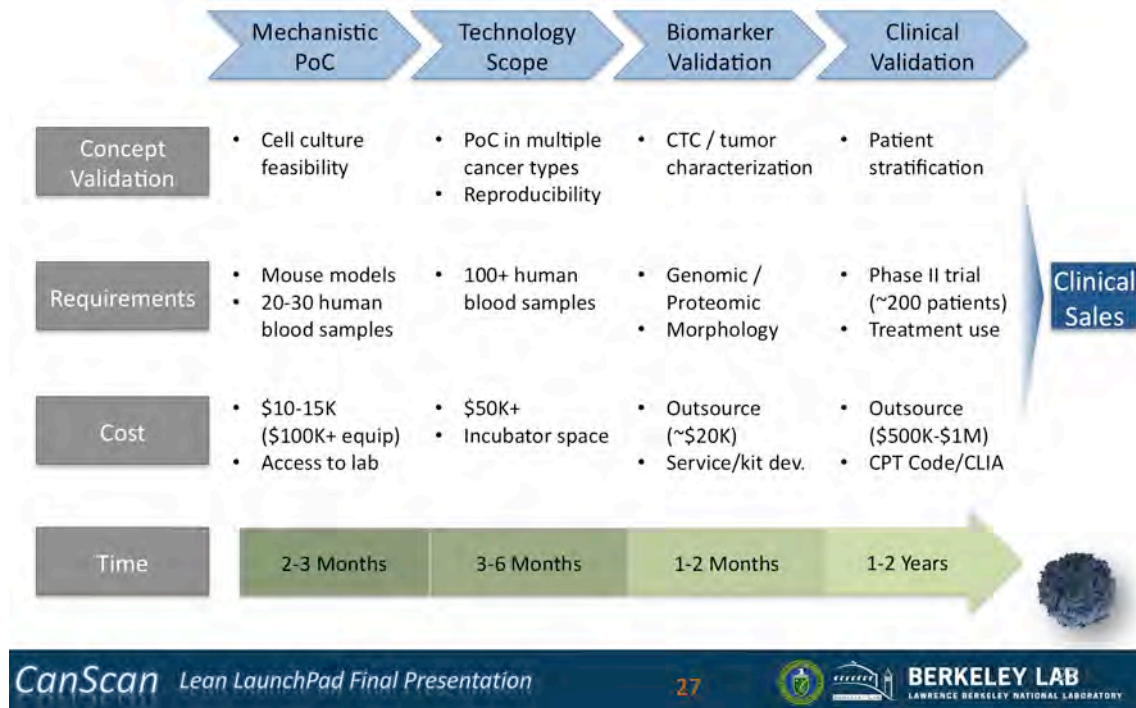


Class 10: Costs



Class 9

Path to Revenues



Class 9

Workshop 3: Presentation Skills Training

This 3-hour workshop session is mandatory.

Review: <http://www.slideshare.net/sblank/lessonslearned-day-presentation-skills-training>.

Effective business communication is more than just conveying the facts. It also entails putting the facts in a context and flow that adds to their meaning and puts them in a form that brings the “listener” into the process. The analogy often used is that of a story; that good business communicators are able to combine words, images, and shared contexts (analogies) to crisply convey meaning. This is the art of the great “pitch.”

This session will help prepare students, not only for their team’s final presentation in this class, but with life skills that will hopefully benefit them in multiple venues, for many years. Students should come prepared to learn about:

Storytelling

The World: Market/opportunity, how does it operate

The Characters: Customers/Value Proposition/ product-market fit, pick a few examples to illustrate

Narrative Arc: Lessons learned how? Enthusiasm, despair, learning, then insight

Show Us: Images and demo to illustrate learning = wireframes and pivots to finished product

Editing: Does each slide advance the character and plot (learning)

Theater

Point me at what you want me to see

Ought to be self-explanatory

Use analogies

Teaching Objectives

Teams bring their draft final presentations, draft story video, and draft technical video. They refine and polish them throughout the day, changing slides, editing video, reshooting interviews, and redoing voiceovers while receiving comments and suggestions from the instructors along the way. The emphasis is on how they present themselves and their material, with a specific focus on telling a clear and compelling story.

Before the Workshop

Teams are instructed to have early versions of all their presentation materials available for online review by the presentation skills instructors the week before this workshop.

One week before the workshop:

Teams are reminded to email links to their presentations and videos. Teams that follow these instructions receive initial comments and suggestions via email a few days before the workshop.

The day of the workshop:

The first 30-60 minutes is spent talking about storytelling and presentation basics. (The key lecture concepts are in a later section.) Instructors then walk the room and work with one team at a time. Often, a comment or suggestion comes up that all the teams would benefit from hearing, and instructors get the attention of everyone in the room to share information. After a break, each team gives its presentation to the instructors and the other groups and receives notes in a formal practice session.

Instructors will find plenty of material to work with by looking at the slide decks and video links that are emailed in advance. Spend the morning sessions talking about the common pitfalls in team presentations:

- Make sure Slide 1 has their team name, product, what business the team ended up in, and the number of customers the team talked to.
- Every presentation requires a diagram of Customer Archetypes, customer flow, distribution channel, and revenue flow.
- Every presentation requires hypotheses tested, experiments run, and results.
- Final Slides: Click through each one of the team's Business Model Canvas slides.

Teams need to see examples of successful presentations! Point the teams to good examples, including:

RedOx team from Yale:

<http://www.slideshare.net/sblank/redox-final-nsf-presentation>

NeonLabs from Carnegie Mellon University:

<http://www.slideshare.net/sblank/lighttip-nsf-final-presentation>

Phioptics from the University of Illinois:

<http://www.slideshare.net/sblank/phioptics-nsf-final-presentation>

OmegaChem Iowa State University

<http://www.slideshare.net/sblank/omegachem-nsf-final-presentation>

See all presentations and videos at:

<http://www.slideshare.net/sblank/tagged/i-corps>

Lessons Learned Presentation

Class 9 March 20th

Lessons Learned Presentations

Before March 20th Lessons Learned Presentation



March 20th In Class



Assignment: Student Deliverables for the "Lessons Learned" Class

- **Story Video:** 2-minute video focused on the team's journey through Lean LaunchPad as it relates to their business.
- **Lessons Learned Slide Deck** (8 minutes for the team's slide presentation): Depending upon the number of teams in your cohort and the length of your class, final presentations can be up to 10 minutes plus the video.

Best Practices

- Focus every bit of the team presentations (slide deck and videos) on the *specifics* of the company each team is starting, the *specifics* of the customers they met, and the *specific* lessons they as a company learned about their particular product or service.
- Have teams use diagrams of what they learned: customers, channels, etc., as much as possible.

Lessons Learned Presentation

- Have teams use key moments in their Business Model Canvases to illustrate the major pivots of their journey. Teams that emailed YouTube links to their videos and slide decks several days in advance get much better feedback, and have time to act on the feedback.
- YouTube is the right mechanism to share video for email critique; only accept YouTube links. Dropbox, and especially email attachments, are not useful and slow the entire process to a standstill.

Story Video Details (2 minutes)

Think of the story video as the heart of the team presentation as told through video.

Suggested Story Video outline:

- What are your names and what is your team's name? Introduce yourselves. Pan the camera around your office so we can see where you work.
- How many customers did you talk to?
- Did you find this easy? Hard at first?
- When you started the class, what was the most important thing you thought you would have to do to successfully launch a scalable startup?
- How do you feel about that now?
- Thinking back across the class, who was the most interesting customer you met and where did you meet them?
- What happened?
- Why, specifically, was this your most interesting customer conversation?
- And how, specifically, did your business model change as a result?
- Now that the class is over, what was the most surprising thing you learned in the class?

Teams need to see examples of story videos! Point the teams to good examples, including:

City Climber team from City University of New York:

<http://www.slideshare.net/sblank/city-climber-story-video-nsf>

RedOx team from Yale: <http://www.slideshare.net/sblank/redox-video-nsf>

PhiOptics from University of Illinois:

<http://www.slideshare.net/sblank/phi-optics-story-video-nsf>

Soliculture team from UC Santa Cruz:

<http://www.slideshare.net/sblank/soliculture-story-video-nsf>

NeonLabs from Carnegie Mellon University:

<http://www.slideshare.net/sblank/neonlabs-story-video-nsf>

Lessons Learned PowerPoint Presentation (8 minutes)

The "lessons learned" slide deck is a very short list of definitions and simple declaratives

Lessons Learned Presentation

that are intended to increase the quality of the presentations. Here it is, in full:

- Story.
- Be specific.
- Show me, don't tell me.
- Arcs.
- Beginning, middle, end.
- Character, setting, plot.
- Editing.
- Notes.
- Look before...
- Practice!
- Be specific.
- Use (or enhance) the diagrams you developed in weekly presentations to illustrate these points.

Common Student Errors: Presentation and Video

Students often make very bland story videos:

- They don't naturally hone in and choose very specific details of their technology, their customers, and their learning process. This is essential—the more specific the better.
- It is only through the specificity of a storyteller that an audience can extrapolate to generality, which is what teams would want an investor to do.

Students often spend time thanking instructors, speaking excitedly about the Lean Launchpad program, or making cheeky references or inside jokes:

- This is a **huge** mistake, and can make their presentation feel like a junior high school Science Fair project. Students should spend absolutely **zero** time on any of these topics, and all meta references to how important teamwork is should be aggressively cut. This is very hard for many students to internalize.
- None of that has any place in a 2-minute video about a real company that is actually trying to raise real money from real investors. Investors will ascertain team dynamics for themselves when they meet a company and get to know the people involved.

Students think they need to tell a whitewashed success story:

- This is another big mistake, and will damage their attempts at getting subsequent financing.
- Students must strive to tell the authentic, honest story of their successes and mistakes, pitfalls, discoveries, and pivots.
- Most importantly, students must talk in the most specific terms possible about the customers they actually met, what they actually said, and how that changed

Lessons Learned Presentation

their Business Model Canvases.

Students don't label their axes on graphs, label their arrows in diagrams, or make a legend showing their color-coding scheme. They should.

Teaching Objectives

Teams present:

- 2-minute video.
- 8-minute "lessons learned" presentation.

Logistics

All teams present in the same room. Depending on your class schedule, this can be split over two weeks. For teams presenting in the second week, their slides and videos are due at the SAME TIME as the teams presenting in the first week. This eliminates the "benefit" of going last (expect that the later teams will have the benefit of more time to practicing their presentations).

Appendix A: E-School

Appendix A: E-School: The New Entrepreneurship Curriculum The Rise of Business Schools: Management as an Occupation

The invention of the business school was in response to corporate need in the United States for a professional management class. In 1881, Wharton established the first business school for *undergraduates*; the first students with a bachelor's of finance emerged three years later. (Wharton would offer its first MBA in 1921.)

But it was with the establishment of a *graduate* degree—the Master of Business Administration—first for business at Tuck at Dartmouth in 1900, but more importantly for education of *management* at the Harvard Business School in 1908, that business management education really took off. Harvard provided a broad foundation for those students entering commerce or manufacturing, and professional training for those entering accounting or auditing, railroading, banking, and insurance.

The MBA Curriculum - From Field Work to Case Studies

When Harvard started the MBA program, there were no graduate-level business textbooks.⁴⁵ From its inception, the school used the “problem-method” which emphasized field work as an important part of the curriculum.⁴⁶ In other words, they got out of the classroom and visited real companies.⁴⁷ Students visited companies, observed how executives worked, interviewed leading executives, and wrote up how they solved problems. Students then discussed these problems in class. But by the early 1920s, a new Dean began to reshape the curriculum, shifting it from an industry orientation (e.g., steel, railroads) to a functional one (e.g., marketing, factory and employment management). The functional curriculum served the purpose of enabling academic research (and careers), as traditional academic fields such as psychology and mathematics found their application in the applied business domains of management, organizational behavior, marketing, and finance. More importantly, the focus on a functional curriculum (rather than experiential work outside the classroom) meant mastery of cases, rather than immersion in real-world uncertainty. Harvard's switch to the case method started with the marketing curriculum.⁴⁸ (The case system had already been taught at Harvard's Commercial Law course from the day the school started.) By 1923, with 24 faculty and 600 students, two-thirds of the courses were taught using the case method, and the pattern was set for business education in the 20th century.

The case method attempts to bring the real world into the classroom, but it has a classic weakness: it occurs in the past, and analysis is based principally on the facts presented

⁴⁵ <http://pds.lib.harvard.edu/pds/view/8203333?n=1243&printThumbnails=no>

⁴⁶ Ibid.

⁴⁷ <http://pds.lib.harvard.edu/pds/view/8203333?n=15&printThumbnails=no>

⁴⁸ <http://pds.lib.harvard.edu/pds/view/8203333?n=1628&printThumbnails=no>

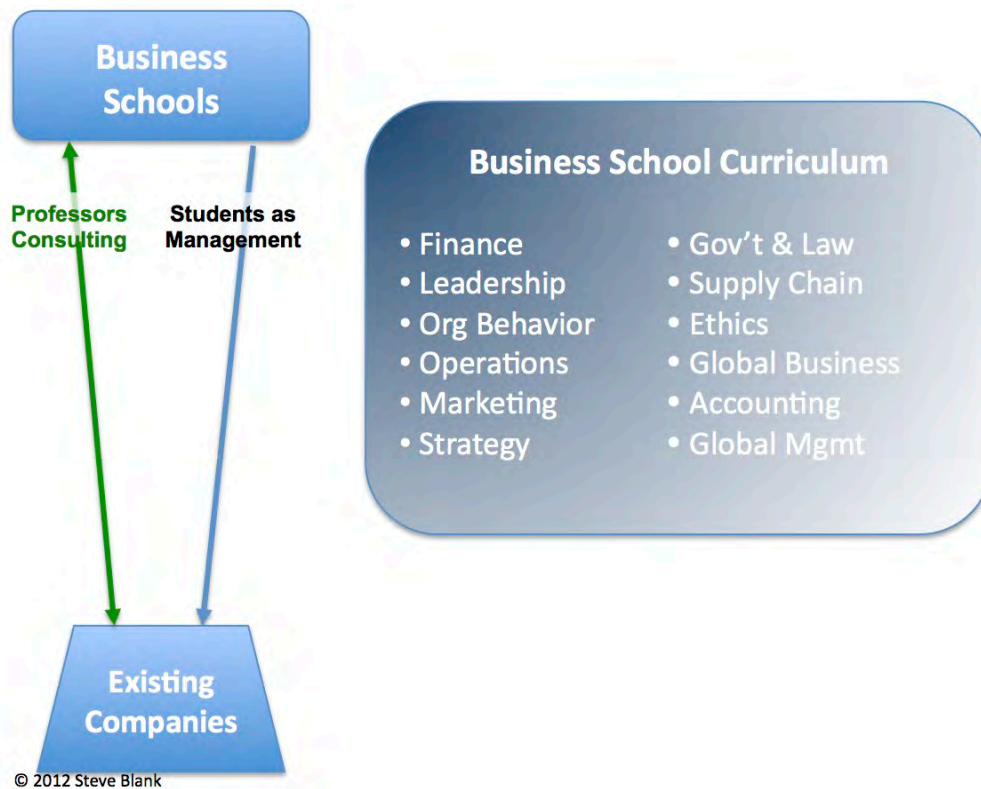


Appendix A: E-School

in the case. While supplementary secondary research is acceptable, no primary data collection or engagement with the marketplace is encouraged, or really possible. It teaches students how to analyze a problem, given the facts, and to suggest solutions. In other words, *it trains managers and consultants, not entrepreneurs*. On this basis, Harvard would become the gold standard for graduate business education in the 20th century. Harvard MBAs would become captains of industry and would hire their professors as consultants.

Business Schools Were Founded to Train Managers, Not Entrepreneurs

Once business schools were formed, what was taught at business school and who taught it? Of course, B-Schools taught management; ultimately, the challenge was to train people how to manage a large corporation.



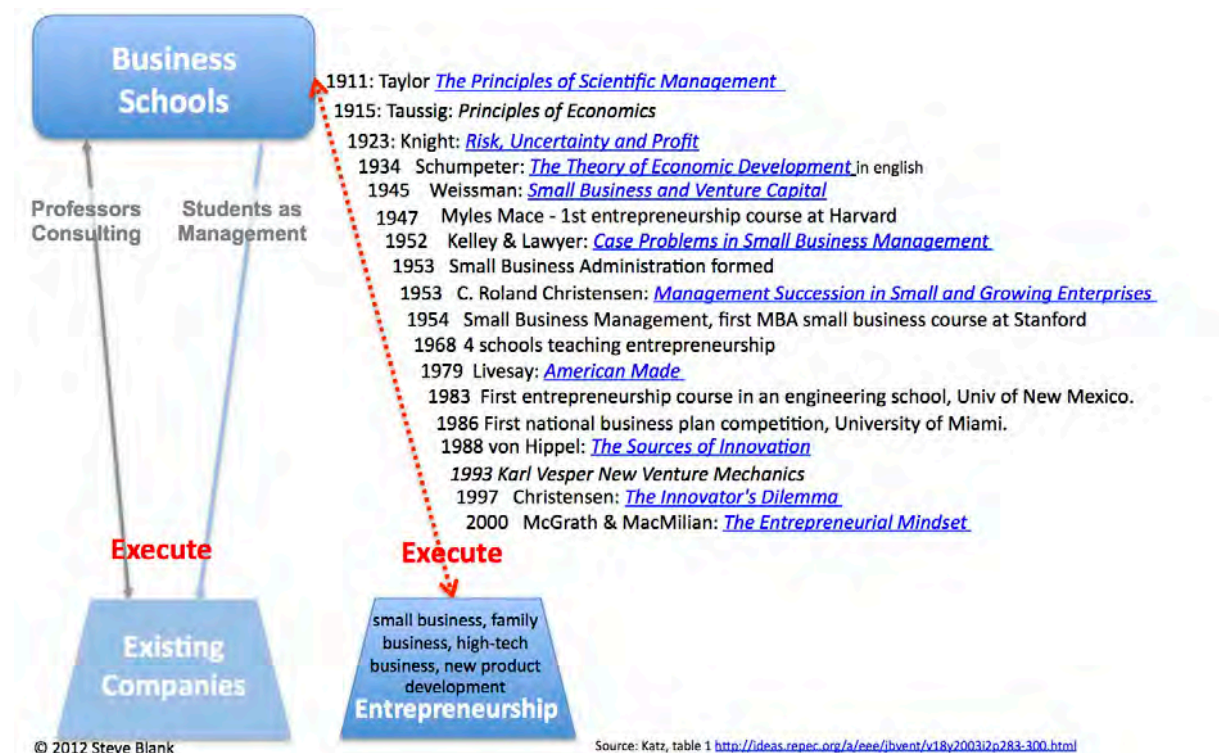
In 1947, Myles Mace taught the first entrepreneurship course in the United States at Harvard Business School (at the same time Georges Doriot was teaching his famous manufacturing class).

In 1967, the first contemporary MBA entrepreneurship courses were introduced at

Appendix A: E-School

Stanford and NYU, and a year later Babson offered the first undergraduate entrepreneurship program. By 1970, sixteen schools were offering entrepreneurship courses, and in 1971 UCLA offered the first MBA in entrepreneurship. Entrepreneurship textbooks started appearing: *Small Business Management: Essentials of Entrepreneurship* and *Entrepreneurship: Playing to Win*. In 1985, the first national business plan competition was held at the University of Miami. By 1991, there were 57 undergraduate and 22 MBA programs. Textbooks, papers, and journal articles proliferated.

With the emergence of venture capital-funded startups as an increasingly important business dynamic, it was becoming clear that there were two highly distinct forms of small business entrepreneurship: [a] highly scalable, high-growth-potential startups, and [b] classic main-street small and medium-size enterprise. Yet business education often failed to recognize this critical distinction. At their core, most entrepreneurship courses were teaching execution.



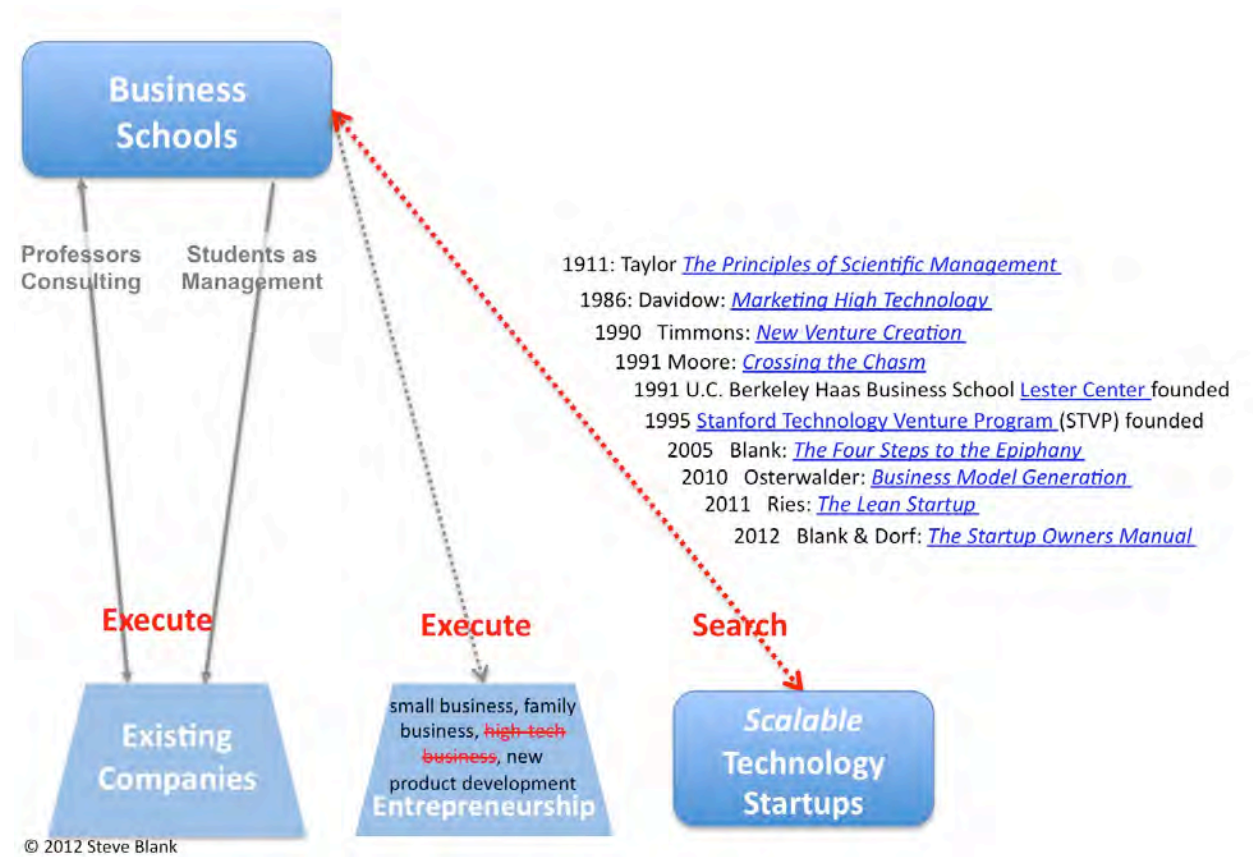
21st Century Entrepreneurship Curricula

Entrepreneurship educators are realizing that curricula oriented around business plans

Appendix A: E-School

and “execution” fail to prepare students for the realities of building or working in startups. Startups are fundamentally a different activity than managing a business, and therefore entrepreneurial education must teach students how to search the uncertainties and unknowns.

Entrepreneurs are now getting their own curriculum, their own textbooks, and their own pedagogy.



To this end, entrepreneurial education must include skill-building courses in creative thinking, business models, Customer and Agile Development, leadership, startup finances, and metrics.

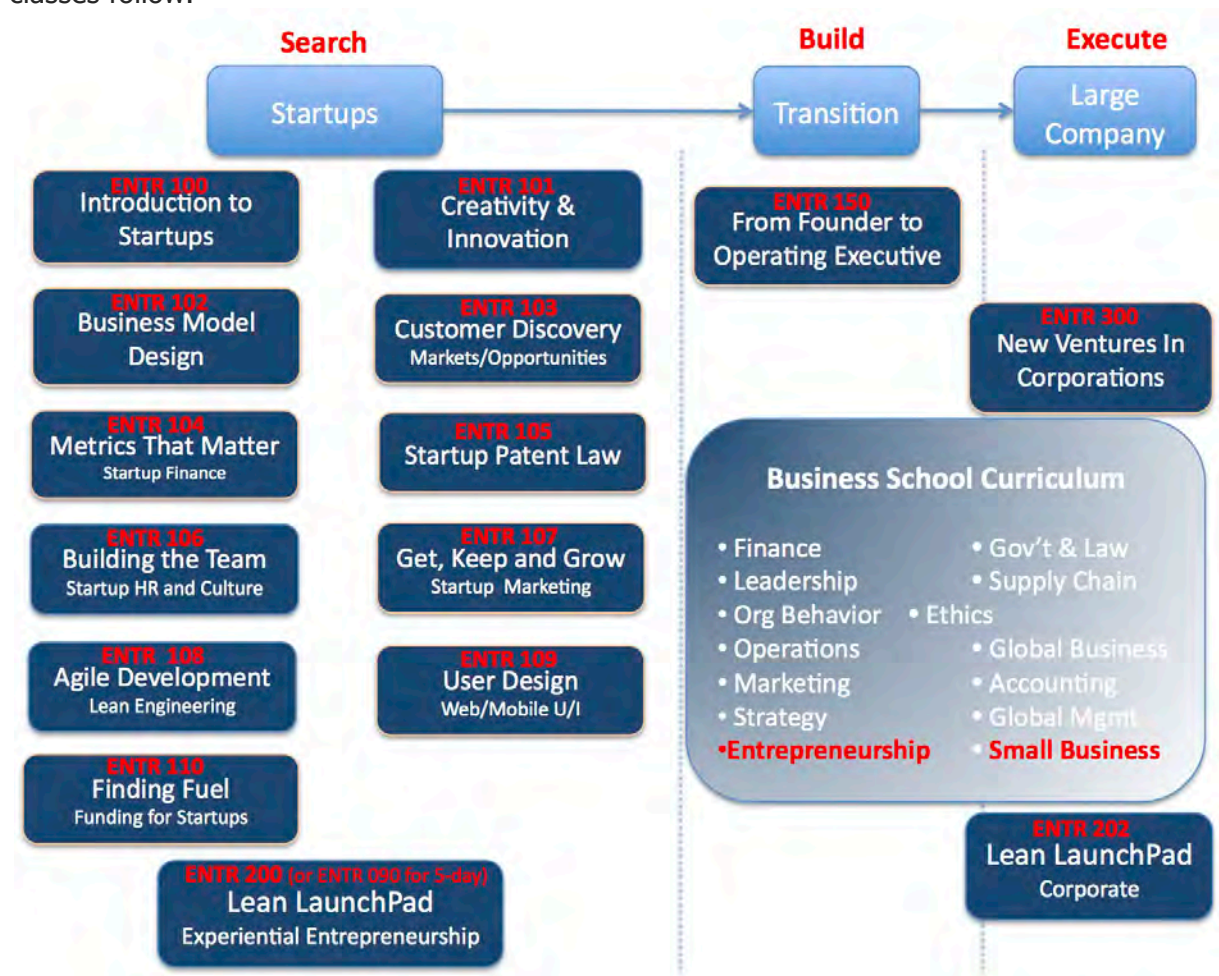
Educators are now beginning to build curricula that embrace *startup* management tools built around “searching for a business model” rather than the “execution of a business model” tools needed in larger companies.

Appendix A: E-School

A Notional Curriculum

While the Lean LaunchPad class can be inserted and taught as part of an existing curriculum in a business or engineering school, it is a harbinger of a completely new entrepreneurship curriculum. It is a curriculum that recognizes that startups require a *new class* of management tools built around “search and discovery” of the business model.

The diagram below illustrates a notional curriculum built around these ideas. The sum of all these classes will provide the startup equivalent of the management tools MBAs learn for execution. Think of it as *E-School* versus B-School. Brief summaries of each of the classes follow.



ENTR 100: Introduction to Startups

Appendix A: E-School

Designed to give students a basic introduction to startups and entrepreneurship. What is a startup? What are the types of startups? Why is a startup different from an existing company? Who can be an entrepreneur? How do founders differ from employees?

Pedagogy – Can be taught as a survey class (lecture + guests) or as a flipped classroom with small team-based experiential projects

Prerequisites – None

ENTR 101: Innovation and Creativity

Where do ideas come from? How to recognize opportunities.

Pedagogy – Lecture with small team-based experiential projects

Prerequisites – None

ENTR 102: Business Model Design

Based around Osterwalder and Pigneur's [*Business Model Generation*](#), this class gives students practice in deconstructing existing business models as well as creating new ones.⁴⁹

Pedagogy – Lecture with business model cases

Prerequisites – None

ENTR 103: Customer Discovery – Markets and Opportunities

How to validate business model hypotheses. Problem recognition in the real world (I have technology, is there a market? I have a market, is there technology?). Market sizing.

Pedagogy – Lecture with small experiential projects

Prerequisites – ENTR 102: Business Model Design

ENTR 104: Metrics that Matter – Startup Finance

Finance before the Income Statement, Balance Sheet, and Cash Flow. How to test Customer Acquisition Cost, Lifetime Value, Average Selling Price, Time to Close, Sales Force productivity, Burn Rate.

Pedagogy – Lecture with business model and Customer Discovery cases

Prerequisites – ENTR 103: Customer Discovery

ENTR 105: Startup Patent Law

Patents, trademarks, copyright, trade secrets, NDAs, and contracts. Which one to use and when? What to patent? Why? When? What matters in a startup? What matters later? Differences by country. How to build a patent portfolio.

Pedagogy – Lecture with business model and Customer Discovery cases

Prerequisites – None

⁴⁹ <http://www.amazon.com/gp/product/0470876417?ie=UTF8&tag=wwwsteveblank-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470876417>

Appendix A: E-School

ENTR 106: Building the Team – Startup Culture and HR

What is a startup culture? Why is it different? Culture versus management style. Founders, early employees, mission, intent, values. Managing the growing startup.

Pedagogy – Lecture with business model and Customer Discovery cases, optional simulations

Prerequisites – None

ENTR 107: Get, Keep, and Grow – Startup Sales and Marketing

How does a startup Get, Keep, and Grow customers? How does this differ for online and physical channels? Details about acquisition, activation, retention, upsell, cross-sell, viral components, etc.

Pedagogy – Lecture with simulations and experiential projects

Prerequisites – ENTR 104: Metrics that Matter

ENTR 108: Agile Development – Lean Engineering

Agile programming and engineering for both hardware and software (Web/mobile/cloud).

Pedagogy – Lecture with small, team-based projects

Prerequisites – Java, Python or PHP

ENTR 109: User Interface Design – Web/Mobile/U/I

User interface design and interaction is a critical part of Web/mobile apps. How and when to iterate and what to optimize.

Pedagogy – Lecture with small, team-based projects

Prerequisites – Web/mobile tools

ENTR 150: From Founder to Operating Executive

Most founders don't make the transition to operating executive. Yet the most successful large technology companies are still run by their founders. What skills are needed? Why is the transition so difficult?

Pedagogy – Lecture with business model and Customer Discovery cases

Prerequisites – None

ENTR 200/202: The Lean LaunchPad

Experiential Business Model Design and Customer Development

Pedagogy – Can be taught with lectures or optional flipped classroom – team-based, immersive, and experiential

Prerequisites – None or ENTR 102, 103, and 10

Appendix B: Sample 10-Week Syllabus

Appendix B: Sample 10-Week Syllabus

This is an example of a syllabus we use at both Berkeley and Stanford. Modify it for your own use.

The Lean Launch Pad

Course Title:	The Lean LaunchPad		
Units:	2		
Instructors:	Steve Blank, xxxx	TA: xxxx	
Days and Times:	xxx	Office Hours:	
Location:			
Texts:	<i>Startup Owner's Manual:</i> Blank & Dorf <i>Business Model Generation:</i> Osterwalder, et al		
Online Lectures:	http://www.udacity.com/view#Course/ep245/CourseRev/1		
Software:	Launchpad Central: https://launchpadcentral.com		
Prerequisite:	Passion in discovering how an idea can become a real company		
Goal:	An experiential learning opportunity showing how founders build startups		

Course Description

This course provides real world, hands-on learning on what it's like to actually start a company. This class *is not about how to write a business plan*. It's *not an exercise on how smart you are* in a classroom, how well you write code or what your patent is, or how well you use the research library to size markets. And the end result is *not a PowerPoint pitch deck for a VC "demo day."* And it is most definitely not an incubator where you come to build the "hot idea" that you have in mind.

This is a practical class – essentially a lab, not a theory or “book” class. Our goal, within the constraints of a classroom and a limited amount of time, is to create an entrepreneurial experience for you **with all of the pressures and demands of the real world** in an early stage startup. The class is designed to give you the experience of how to work as a team and turn an idea into a company.

You will be getting your hands dirty talking to customers, partners, and competitors, as you encounter the chaos and uncertainty of how a startup actually works. You'll practice evidence-based entrepreneurship as you learn how to use a *business model* to brainstorm each part of a company and *customer development* to get out of the classroom to see whether anyone other than you would want/use your product. Finally, based on the customer and market feedback you gathered, you will use *agile development* to rapidly iterate your product to build something customers would actually



Appendix B: Sample 10-Week Syllabus

use and buy. Each block will be a new adventure outside the classroom as you test each part of your business model and then share the hard-earned knowledge with the rest of the class.

Make sure you read the Frequently Asked Questions (FAQ).

The Flipped Classroom

Unlike a traditional classroom where the instructor presents lecture material, [our lectures are online](#) at Udacity.com.⁵⁰ Watching the assigned lectures is part of your weekly *homework*. The information in them is essential for you to complete your weekly interviews and present the insights the teaching team will expect in your presentation for that week. We expect you to watch the assigned lectures for the upcoming week **before** class and we will use time in class to discuss questions about the lecture material and to provide supplemental material. You need to come prepared with questions or comments about the material for in-class discussion. *We will cold-call about the online lecture material.*

Experiential Learning

You will be spending a significant amount of time in between each of the lectures outside the class talking to customers. Each week your team will conduct **at least** 10 customer interviews focused on a specific part of the Business Model Canvas. This class is a simulation of what startups and entrepreneurship are like in the real world: chaos, uncertainty, impossible deadlines in insufficient time, conflicting input, etc.

Team Teaching and the Inverted Lecture Hall

Sitting in the back of the classroom are experienced instructors, professionals who've built and/or funded world-class startups and have worked with hundreds of entrepreneurial teams. We won't be "lecturing" in the traditional sense, but commenting on and critiquing each team's progress. While the comments may be specific to each team, the insights are almost always applicable to all teams. Pay attention.

Peer-to-Peer Comments

While other teams are presenting the results of their weekly experiments, the rest of the class is expected to attentively listen, engage, and react to what they see and hear. Sharing insights, experience, and contacts with each other is a key way that this unique laboratory achieves results. (And it is a significant part of your grade as well!)

Class Culture

Startups communicate in a dramatically different style from the university or larger culture most of you are familiar with. **At times it can feel brusque and impersonal**, but in reality is focused and oriented to create *immediate action* in time- and cash-constrained environments. 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. This approach may seem harsh or abrupt, but it is all part of our wanting you to

⁵⁰ <https://www.udacity.com/course/ep245>

Appendix B: Sample 10-Week Syllabus

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.



Appendix B: Sample 10-Week Syllabus

This class pushes many people past their comfort zone. If you believe that your role of your instructors is to praise in public and criticize in private, you're in the wrong class. **Do not take this class.** If you come from a culture where receiving critiques in front of your peers – on a weekly basis – that may feel abrupt and brusque – embarrasses you, **do not take this class.** It's not personal, but it is by design a part of the class to emulate the pace, uncertainty, and pressures of a startup. In return, we also expect you to question us, challenge our point of view if you disagree, and engage in a real dialog with the teaching team.

Amount of Work

Teams have reported up to 20 hours of work each week. Getting out of the classroom is what the effort is about. If you can't commit the time to talk to customers, this class is not for you. Teams are expected to have completed **at least 10 in-person or Skype video interviews each week**, focused in the Business Model Canvas area of emphasis for that week. **In the 2nd and 3rd week of class, we expect at least 15 interviews to get up to speed quickly on Customer Segments and Value Proposition.**

This means in total over the 10-week course, you will have completed at least 100 interviews. For those with easy to access interview groups, e.g., consumer product/service businesses, more interviews will be expected.

Team Organization

This class is team-based. Working and studying will be done in teams. You will be admitted as a team. *Teams must submit a proposal for entry before the class begins.* Projects must be approved *before the class.*

Team projects can be software, a physical product, or a service of any kind. The teams will self-organize and establish individual roles on their own. There are no formal CEO/VPs. Just the constant parsing and allocating of the tasks that need to be done.

Besides the instructors and TA, each team will be assigned a mentor (an experienced entrepreneur or VC) to provide assistance and support.

Pre-Class Preparation

This class hits the ground running. It assumes you and your team have come into class having done the assigned reading and viewing and prepared a set of contacts to call on.

Suggested Projects

While your first instinct may be a web-based startup, we suggest that you consider a subject in which you are a domain expert. In all cases, you should choose something for which you have passion, enthusiasm, and hopefully some expertise. **Teams that select a Web or mobile-based product will have to build the site or app for the class.** Do not select this type of project unless you possess the necessary skill and are prepared to see it all the way through.

Only Project

Given the amount of work this class entails, there is no way you can do the work while

Appendix B: Sample 10-Week Syllabus

participating in multiple startups. A condition of admission to the class is that this will be the only startup you are working on this quarter/semester.

Deliverables

Meaningful Customer Discovery requires the development of a minimum viable product (MVP). Therefore, each team should have the applicable goal of the following:

1. Teams building a physical product must have a bill of materials and a prototype.
2. Teams building a web product must attempt to build the site, create demand and have customers using it. See <http://steveblank.com/2011/09/22/how-to-build-a-web-startup-lean-launchpad-edition/>.
3. Your **weekly** LaunchPad Central narrative is an integral part of your deliverables. It's how we measure your progress, and it is required that you maintain and update it at least once per week, if not after every customer insight.
4. Your team will present a weekly in-class PowerPoint summary of progress.

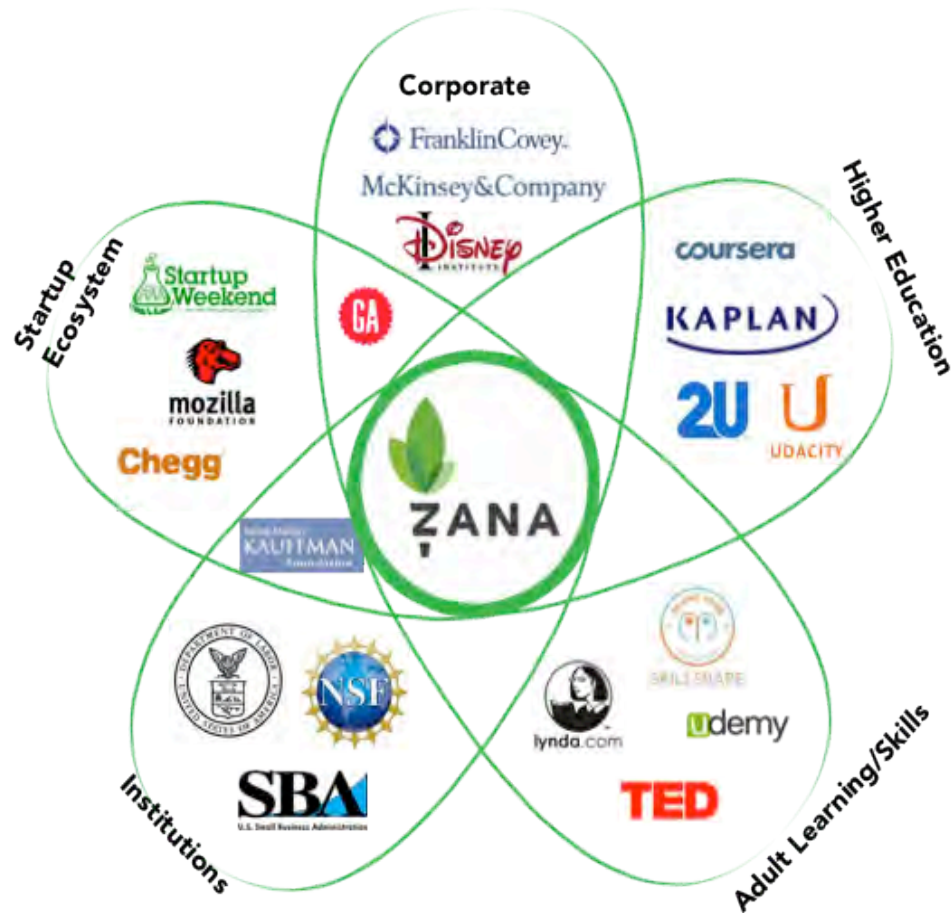
Grading Criteria

This course is team-based and 85% of your grade will come from your team progress and final project. The grading criteria are broken down as follows:

- | | |
|-----|---|
| 15% | Individual participation consists of four parts: a) quality of the written peer-to-peer comments you provide throughout the semester, during class presentations in LaunchPad Central software, b) attendance at each class, c) timely viewing of ALL Udacity videos (those that fall far behind will be asked to leave the class and return when they are caught up) and d) a grade from your fellow teams members at the end of the course, (in the form of a private email sent by each team member to the teaching team assessing the relative participation of other team members performance and productivity throughout the semester). |
| 40% | Out-of-the-building Customer Discovery progress , as measured <i>each week</i> by a) quality of weekly blog write-ups and b) canvas updates and presentations. All team members are expected to perform interviews and contribute to the weekly blog entries. |
| 20% | Team weekly “lessons learned” presentation (see appendix for format). Team members must:
1) State how many interviews were conducted that week (include on cover slide).
2) Present detail on what the team did that week, including changes to canvas.
3) Follow the assigned topics to be covered each week as outlined in the syllabus.
Team members may be called on randomly to present their team’s findings that week. |
| 25% | Team final presentation (see appendix for format). |

Appendix B: Sample 10-Week Syllabus

Class Roadmap



Each week's class is organized around students hypothesis-testing their business model assumptions *outside the classroom*:

- Talking to 10-15 customers.
- Capturing their Customer Discovery progress by using the LaunchPad Central Software (<https://launchpadcentral.com/>) and updating their Business Model Canvas.
- Taking what they learned and assembling a 10-minute Lessons Learned presentation.
- Engaging with their mentors.
- Attending mandatory office hours.
- Watching the Udacity lecture for the week and preparing questions for discussion.

Appendix B: Sample 10-Week Syllabus

- Receiving comments and suggestions from other teams and the teaching team on the lessons learned.

In class:

- Class Q&A about what happened during the past week's Discovery.
- Team presentations and instructor critiques.
- Discussion about the online lecture you just watched on one of the nine building blocks of a business model to help prepare you for next week's Discovery (see diagram below, taken from *Business Model Generation*).

Appendix B: Sample 10-Week Syllabus

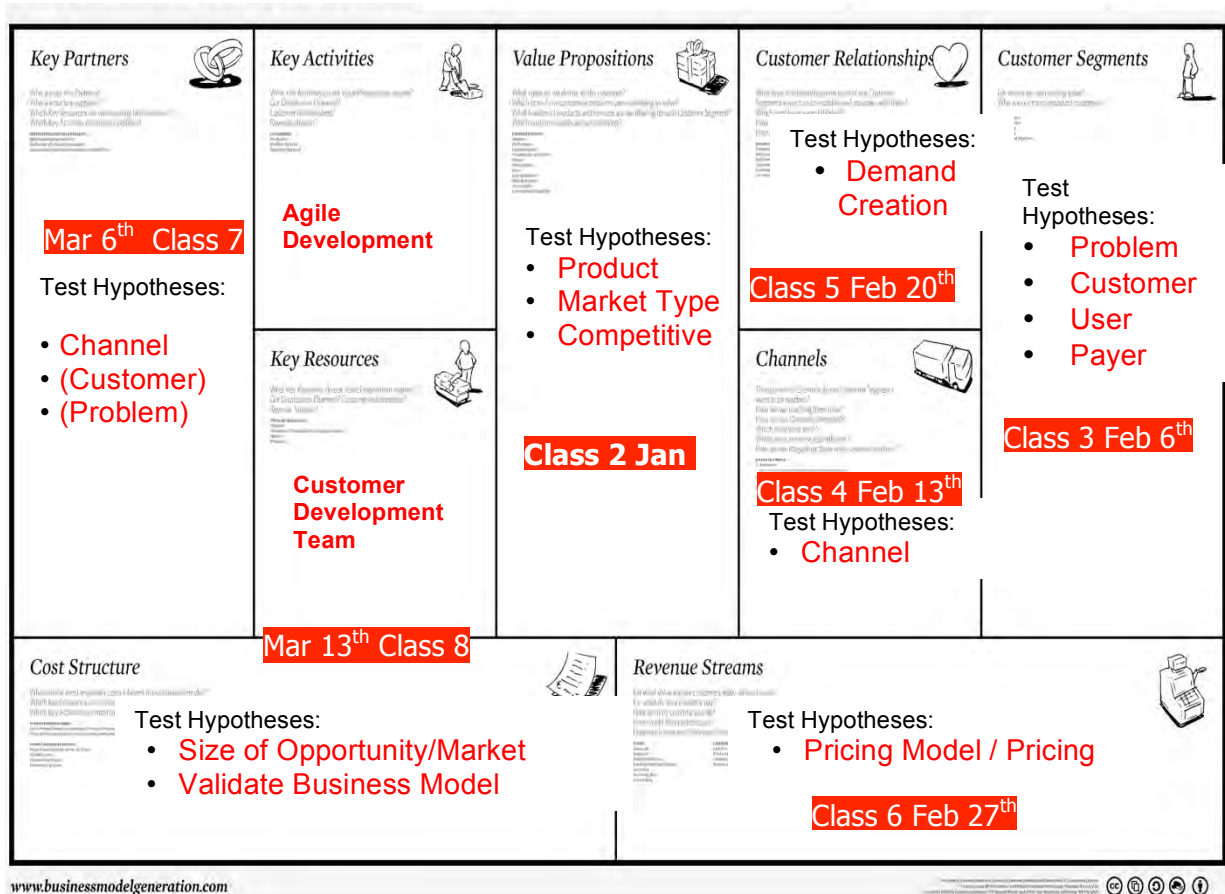
Note: The work you will be presenting will be based on the Udacity lecture you watched the prior week. The lecture you watch just before class, and the in-class lecture, will cover the upcoming week's business model topic to prepare you for the discovery tasks for this week. That means we expect you to have watched that lecture prior to the class.

For example, when you arrive for Class 4, where you will be presenting your work on *Channels*, you are expected to have just watched the *Customer Relationships* lecture on Udacity. You should come prepared with any questions or comments about Customer Relations for in-class discussion, (which will occur at the end of the team presentations) which will have a primary focus on *Channels*.

Each week you are expected to have an updated version of your entire Business Model Canvas, but your Customer Discovery should focus especially on the topic discussed in the prior week's class.

The diagram below shows for which business model block your team will present Customer Discovery each week. Udacity lecture viewing is one week ahead of this schedule.

Appendix B: Sample 10-Week Syllabus



Appendix B: Sample 10-Week Syllabus

Guidelines for Team Presentations

Each team is expected to speak to at least 10-15 customers every week. The 10-minute weekly team presentations are summaries of the team's findings during that week.

Each week, you are expected to have an updated version of your entire Business Model Canvas, but **your Customer Discovery should focus primarily on the topic listed for the week, which was discussed at the end of previous class**. This is true regardless of whether you've pivoted and are re-exploring topics from earlier lectures. In the case of a pivot (which can be indicative of successful Customer Discovery), you will have to work doubly hard to cover earlier class topics and touch on current class topics in your weekly presentation.

Slide 1	Cover slide Team name, team members/roles <ul style="list-style-type: none">- Number of customers spoken to this week- Total number spoken to- Three sentence description what the team does and why I should care- Market Size (TAM,SAM,TM and did it change this week) – Exported from LaunchPad Central
Slide 2	Updated Business Model Canvas – week-to-week changes shown in red (Exported from LaunchPad Central) Multi-sided markets shown in different colors
Slide 3-n	What did you learn about “topic of the day” (Canvas block x)? <ul style="list-style-type: none">- Hypothesis: Here's What we Thought- Experiments: Here's What we Did- Results: Here's What we Found- Action: Here's What we Are Going to Do Next
Slide 4	Diagram (if appropriate) of what you learned this week (e.g., customer workflow, payment flows, distribution channel diagram)

Feedback from the teaching team during oral presentations is where the most learning occurs. Due to the pace and tempo of the course, all students will held accountable for completing the reading and video materials detailed in the syllabus covering the material for each class.

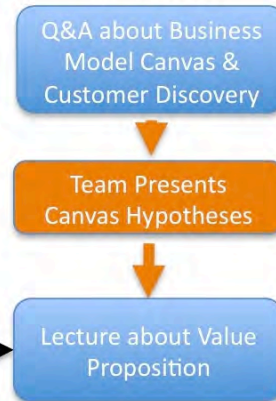
Appendix B: Sample 10-Week Syllabus

Pre-Class Preparation

Before Jan 23rd Class



Class 1 – Jan 23rd In Class



Prepare Discussion Questions

= students
 = teaching team

Reading/ Viewing

Assignment for day 1 of the class

- Watch Udacity Lessons (<https://www.udacity.com/course/viewer#!/c-ep245>) 1, 1.5a, 1.5b and 2: What We Now Know and Business Models and Customer Development and Value Proposition.
- Submit your 100-word discussion question assignment in advance of class:
What aspect of defining the Value Proposition for your venture did you find most difficult? Why? Which of your ventures Customer Segments do you think will be the easiest to validate? Why?
- Read: *BMG* pp. 14-49: The 9 Building Blocks of the Canvas.
- Read: *SOM* pp. 1-75: Intro to Customer Development and Customer Discovery, Market Size; pp. 472: Market Size; pp. 112-122 and 457-458: Market Type; and pp. 123-124: Competitors.
- Review Startup Tools: <http://steveblank.com/tools-and-blogs->

Appendix B: Sample 10-Week Syllabus

[for-entrepreneurs/](#).

- Skim Course Strategy: <http://steveblank.com/category/lean-launchpad/>.
- Skim prior team presentations: <http://www.slideshare.net/sblank>.

Presentation For Jan 23rd class

Business Model

Prepare a presentation to present your business model to the class:

Slide 1: Title Slide.

Slide 2: Business Model Canvas.

Slide 3: Identify your market type.

Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3).

Slide 5: Identify your competitors.

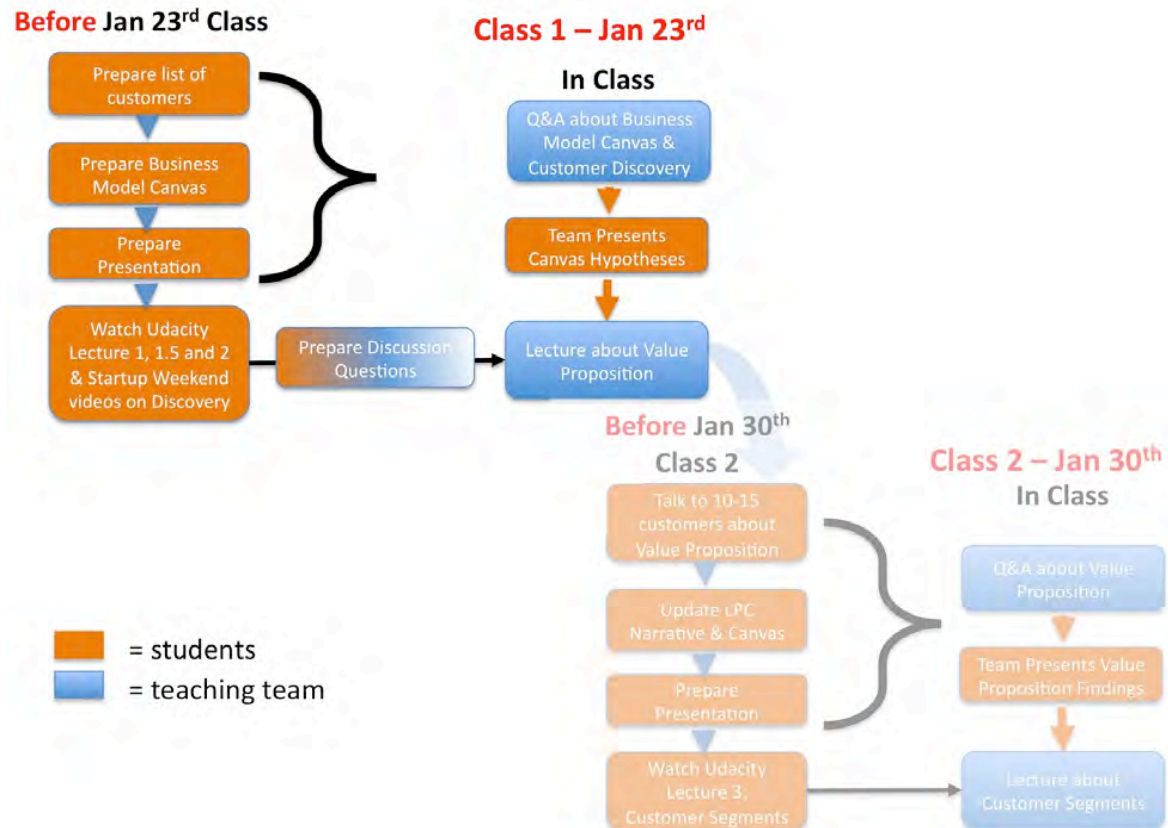
Slide 6: Propose experiments to test your Value Proposition, Customer Segment, channel, and revenue model of your business model.

What constitutes a pass/fail signal for each test?

Develop a customer/partner contact list.

Appendix B: Sample 10-Week Syllabus

Class 1: Business Model/Customer Development (Jan 23rd)



Class 1 Business Models and Customer Development

Learning objectives after presentation and critique

Concepts Students Should Understand

- 9 parts of a Business Model
- Hypotheses versus facts
- Getting out of the building
- Web/mobile versus physical
- Problem/solution
- Product-market fit
- Hypotheses/experiment design/test/insight
- Iteration versus pivot

Students should understand the relationship between canvas components:

- Value Proposition/Customer Segments – product-market fit
- Customer relationships: get/keep/grow
- Revenue/costs – making money

Appendix B: Sample 10-Week Syllabus

Presentation for today's Jan 23rd class	<p>Slide 1: Title Slide.</p> <p>Slide 2: Business Model Canvas.</p> <p>Slide 3: Identify your market type.</p> <p>Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3).</p> <p>Slide 5: Identify your competitors.</p> <p>Slide 6: Propose experiments to test your Value Proposition, Customer Segment, channel, and revenue model of your business model.</p> <p>What constitutes a pass/fail signal for each test?</p>
Business Model	

Mandatory LaunchPad Central Class training right after Jan 23rd class	<p>Product Overview Demo by TA/LaunchPad Central Team</p> <ul style="list-style-type: none"> • Mandatory hands-on team training on key features • Creating/updating discovery narrative posts • Creating/updating Business Model Canvas • Using audio recordings, pictures in interviews • Exporting canvas, contacts • Making an Ask of mentors, faculty, other teams • Creating team profiles and opportunity assessments
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Reading on Jan 24th for Value Proposition	<ul style="list-style-type: none"> • Read <i>BMG</i> pp. 77-107: Multisided & Freemium Markets; pp. 127-133: Customer Insights. • Read Osterwalder Value Proposition Canvas at http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html and http://businessmodelalchemist.com/blog/2012/09/test-your-value-proposition-supercharge-lean-startup-and-custdev-principles.html. • Read <i>SOM</i> pp. 76-84: Value Proposition and MVP; pp. 189-202: Getting Out of the Building/Experiments/Contacts; pp. 474: Product Features Checklist; and pp. 487: Contacts Checklist. • Watch Mark Pincus at: http://ecorner.stanford.edu/authorMaterialInfo.html?mid=2313.
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Viewing on Jan 24th	<ul style="list-style-type: none"> • Watch: Customer Discovery Checklist: http://startupweekend.wistia.com/projects/zt618zz0r7 • Watch: How do Customer Discovery:
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Appendix B: Sample 10-Week Syllabus

<http://startupweekend.wistia.com/projects/8ss0rm03pj>

Presentation for next week's Jan 30th class

Value Proposition

- Talk to at least 15 potential customers to generate findings.
- Slide 1: Title slide.
- Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors.
- Slide 3: Value Proposition Canvas, see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf.
 - What are the Products/Services, Pain Relievers, Gain Creators?
 - What's the MVP you'll test?
- Slide 4: What were your experiments to test Value Proposition?
- Slide 5 - n: What did you learn about your Value Proposition from talking to your first customers?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Get team LaunchPad Central up, and post first discovery narratives.

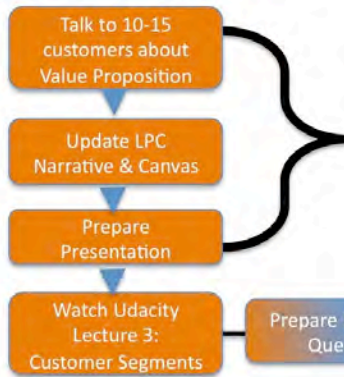
Viewing on Jan 29th

- Watch Udacity Lesson 3: *Customer Segments*
- Submit your 100-word discussion question assignment in advance of class:
Which of your venture's Customer Segments do you think will be the easiest to validate? Why?

Appendix B: Sample 10-Week Syllabus

Class 2: Value Proposition (Jan 30th)

Before Jan 30th Class



Class 2 – Jan 30th

In Class



Before Feb 6th

Class 3



Class 3 – Feb 6th

In Class



Orange box = students
Blue box = teaching team

Appendix B: Sample 10-Week Syllabus

<p>Class 2 Value Proposition</p> <p>Learning objectives after presentation and critique</p>	<p>Students should understand:</p> <ul style="list-style-type: none"> • “It’s not all about my <i>invention</i>.” • “It’s all about the <i>business model</i>.” • The majority of product features are never used by customers. • The MVP and customer development eliminate waste in time/cash. • Engineers love to add features. • The goal of the MVP is to find the <i>minimum</i> feature set. • The difference in an MVP for a physical product versus the Low and High Fidelity MVPs for a Web/mobile product. • Why customer development can’t be done with Waterfall engineering but needs an Agile Development process.
<p>Presentation for today’s Jan 30th class</p> <p>Value Proposition</p>	<ul style="list-style-type: none"> • Slide 1: Title slide. • Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors. • Slide 3: Value Proposition Canvas, see: http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf. <ul style="list-style-type: none"> ○ What are the Products/Services, Pain Relievers, Gain Creators? ○ What’s the MVP you’ll test? • Slide 4: What were your experiments to test Value Proposition? • Slide 5 - n: What did you learn about your Value Proposition from talking to your first customers? <ul style="list-style-type: none"> - Hypothesis: Here’s What we Thought - Experiments: Here’s What we Did - Results: Here’s What we Found - Action: Here’s What we Are Going to Do Next
<p>Reading on Jan 31st for</p> <p>Customer Segments</p>	<ul style="list-style-type: none"> • <i>BMG</i> pp. 134-145: Ideation; pp. 161-169: prototyping; and pp. 200-211: Business Model Environment. • <i>SOM</i> pp. 85-97: Customer Segments; pp. 203-217: Problem Understanding, pp. 218-221: Gain Customer Understanding; pp. 222-226: Market Knowledge; pp. 260-266: Product-Market Fit; and pp. 476: Customer Segments Checklist.

Appendix B: Sample 10-Week Syllabus

Presentation for next week's Feb 6th class

Customer Segments

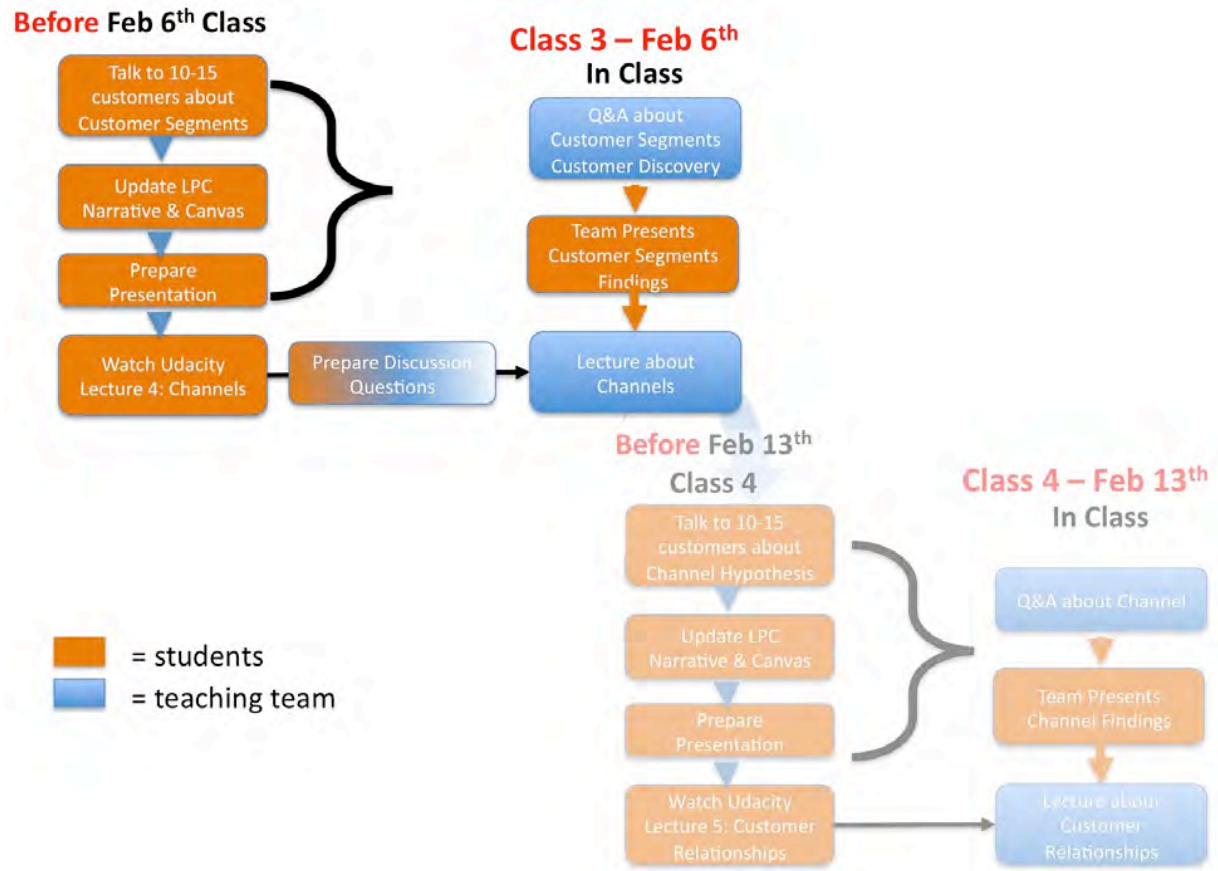
- **Talk to at least 15 potential customers.**
- Slide 1: Title slide.
- Slide 2: Business Model Canvas with any changes **marked in red** and multi-sided markets shown in different colors—is this a multi-sided market?
- Slide 3: Value Proposition/Customer Segment Canvas, see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf.
 - What are the Gains, Pain, Customer Jobs?
 - What's the MVP you'll test?
- Slide 4: How do customers solve this problem(s) today? Does your Value Proposition solve it? How?
- Slide 5-n: What did you learn about your customers?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Slide 6: Diagram of customer workflow.
- Slide 7: What is the resulting Customer Archetype? Draw a diagram.
- **Post discovery narratives on Launchpad Central.**
- **Web/mobile startups** start work on site or wireframe.
- **Physical products start prototype, demo, or model and/or Kickstarter campaign.**
 - See *SOM* pp. 200-202 and 211-216

Viewing on Feb 5th

- **Watch Udacity Lesson 4: Channels**
- Submit your 100-word discussion question assignment in advance of class: Select a channel of distribution and list three strong benefits, and three strong challenges (or detriments). Are you inclined to use that channel? Why?

Appendix B: Sample 10-Week Syllabus

Class 3: Customer Segments (Feb 6th)



Class 3 Customer Segments

Learning objectives after presentation and critique

Concepts Students Should Understand

- Value Proposition + Customer Segment = product-market fit.
- Customer pains and gains.
- Customer “jobs to be done.”
- Customer archetypes/personas and why they are useful.
- Problem versus needs.
- The difference between users, influencers, recommenders, decision makers, economic buyers, and saboteurs.
- Market type – explain the difference between Existing, Resegmented, New, and Clone markets.
- Explain why it matters to know which one you are in.
- The difference between single- and multi-sided markets.

Appendix B: Sample 10-Week Syllabus

Presentation for today's Feb 6th class Customer Segments	<ul style="list-style-type: none">• Slide 1: Title slide.• Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors—is this a multi-sided market?• Slide 3: Value Proposition/Customer Segment Canvas, see: http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf.<ul style="list-style-type: none">◦ What are the Gains, Pain, Customer Jobs?◦ How do each of the Customer Segments solve this problem or problems today? Does your Value Proposition(s) solve it/them? How?◦ What's the MVP you'll test?• Slide 4: Are there multiple Customer Segments? Does each have a matching Value Proposition?• Slide 5-n: What did you learn about your customers?<ul style="list-style-type: none">- Hypothesis: Here's What we Thought- Experiments: Here's What we Did- Results: Here's What we Found- Action: Here's What we Are Going to Do Next• Slide 6: Diagram of customer workflow.• Slide 7: What is the resulting Customer Archetype? Draw a diagram.
Reading for Feb 7th for Channels	<ul style="list-style-type: none">• <i>BMG</i> pp. 147-159: Visual Thinking.• <i>SOM</i> pp. 98-111: Channels; pp. 243-244: Meet the Channel; pp. 332-343: Channel Roadmap; pp. 406-412: Distribution Channels; and pp. 478 Channels Checklist• See Mark Leslie's <i>Value Chain</i> slides at http://www.slideshare.net/markleslie01.
Presentation for next week's Feb 13th class Channels	<ul style="list-style-type: none">• Talk to at least 10-15 potential customers and channel partners (salesmen, OEMs distributors, etc.).• Slide 1: Title slide.• Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors—is this a multi-sided market?• Slide 3 - n:<ul style="list-style-type: none">◦ What is the distribution channel? Are there alternatives?◦ What was it that made channel partners interested? Excited?

Appendix B: Sample 10-Week Syllabus

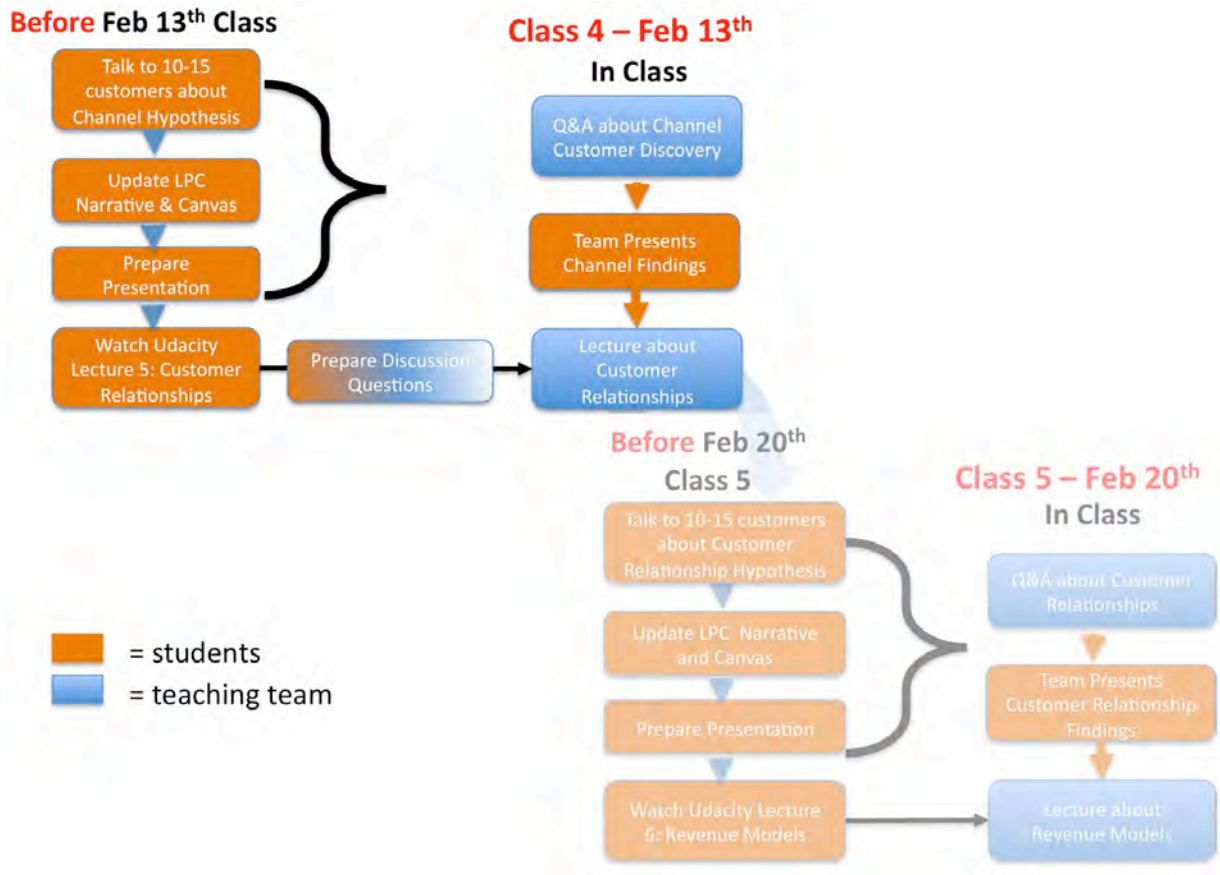
- Slide 4-n: What did you learn about your channel?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next
- Draw the channel diagram and annotate it with the channel economics.
- **Post discovery narratives on Launchpad Central.**
- **Web/mobile startups need site up and running/wireframe.**
- **Physical products demo prototype, demo, or model and/or Kickstarter campaign.**

**Viewing for
Feb 12th**

- **Watch Udacity Lesson 5: *Customer Relationships***
- Submit your 100-word discussion question assignment in advance of class:
Which of your Customer Segments will tend to have the highest Lifetime Value? Why?

Appendix B: Sample 10-Week Syllabus

Class 4: The Channel (Feb 13th)



Class 4 Distribution Channels

Learning objectives after presentation and critique

Concepts Students Should Understand

- Definition of a distribution channel: direct, indirect and OEM.
- Difference between physical and virtual channels.
- Types of physical and virtual channels.
- Distribution channel versus product complexity.
- Distribution channel economics.

Appendix B: Sample 10-Week Syllabus

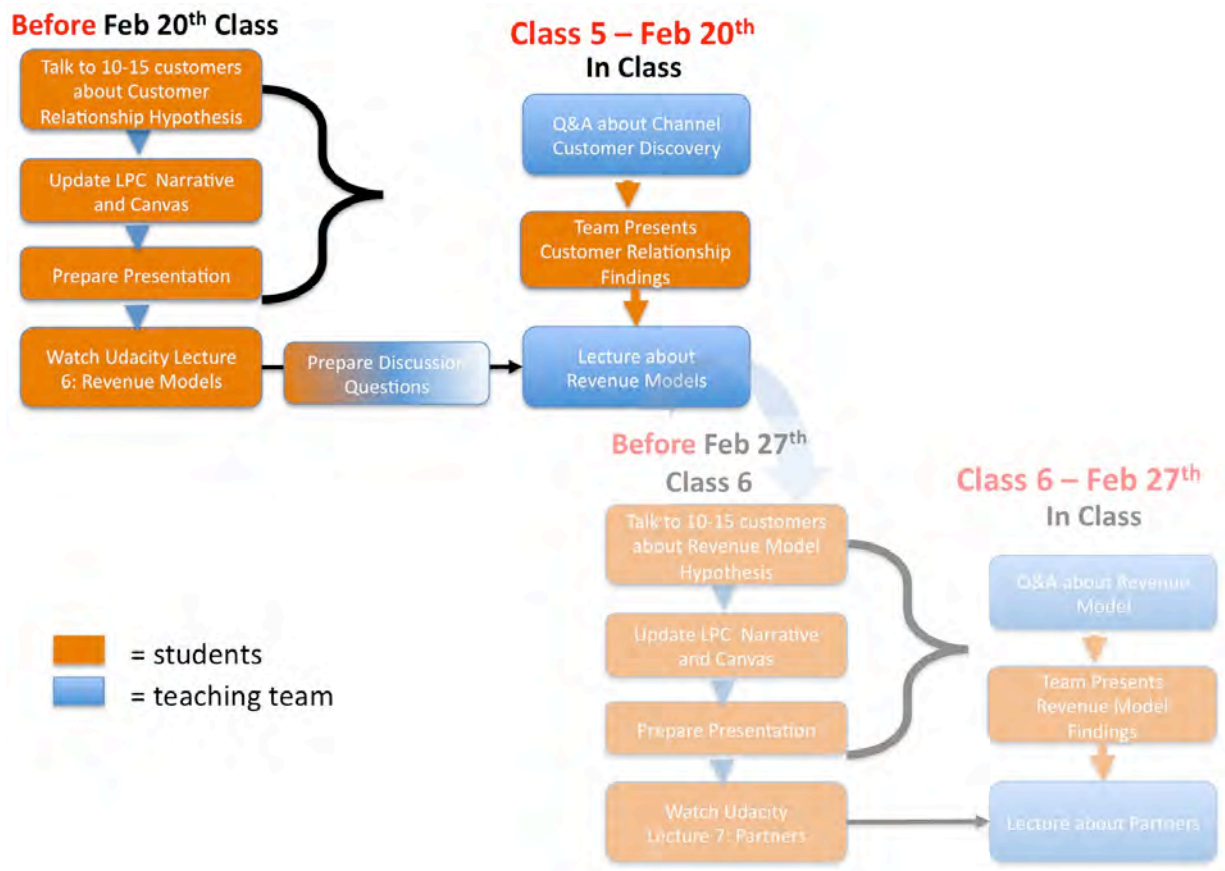
Presentation for today's Feb 13th class Channels	<ul style="list-style-type: none">• Slide 1: Title slide.• Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors—is this a multi-sided market?• Slide 3 - n:<ul style="list-style-type: none">• What is the distribution channel? Are there alternatives?• What was it that made channel partners interested? Excited?• Slide 4-n: What did you learn about your channel?<ul style="list-style-type: none">• - Hypothesis: Here's What we Thought• - Experiments: Here's What we Did• - Results: Here's What we Found• - Action: Here's What we Are Going to Do Next• Draw the channel diagram and annotate it with the channel economics.• Show Web/mobile site up and running/wireframe.• Physical products show demo prototype, model, and/or Kickstarter campaign.
Reading for Feb 14th for Customer Relationships	<ul style="list-style-type: none">• <i>BMG</i> pp. 146-159: Visual Thinking.• <i>SOM</i> pp. 126-168: Customer Relationships Hypotheses; pp. 296-351: Get/Keep/Grow; pp. 480-482: Relationships Checklist; and pp. 490: MVP Test.• Review: Dave McClure's: Startup Metrics for Pirates http://www.slideshare.net/dmc500hats/startup-metrics-for-pirates-nov-2012
Presentation for next week's Feb 20th class Customer Relationships	<ul style="list-style-type: none">• Talk to at least 10-15 potential customers.• Slide 1: Title slide.• Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors—is this a multi-sided market?• Slide 3-n: What were your objective pass/fail metrics for each "Get" test/methodology:<ul style="list-style-type: none">○ What is your customer acquisition cost?○ What is your customer lifetime value?○ Build demand creation budget and forecast.• What did you learn about your Customer Relationships (Get/Keep/Grow)?<ul style="list-style-type: none">• - Hypothesis: Here's What we Thought• - Experiments: Here's What we Did• - Results: Here's What we Found

Appendix B: Sample 10-Week Syllabus

	<ul style="list-style-type: none">- Action: Here's What we Are Going to Do Next• Draw the Get/Keep/Grow diagram and annotate it with the key metrics.• Post discovery narratives on Launchpad Central.• For Web teams: Get a working Web site and analytics up and running. Track where your visitors are coming from (marketing campaign, search engine, etc.) and how their behavior differs. What were your hypotheses about your Web site results? Engage in "search engine marketing" (SEM); spend \$20 to test customer acquisition:<ul style="list-style-type: none">○ Ask your users to take action, (email, signing up).○ Use analytics (Google/Kissmetrics, etc.) to measure the success of your campaign.○ Change messaging on site during the week to get costs lower.○ If you're assuming virality of your product, you will need to show viral propagation of your product and the improvement of your viral coefficient.• Physical products show <u>demo</u> prototype, model, and/or Kickstarter campaign.
Viewing for Feb 19th	<ul style="list-style-type: none">• Watch Udacity Lesson 6: <i>Revenue Model</i>• Submit your 100-word discussion question assignment in advance of class: List five different possible revenue models for your venture. Which do you prefer? Why?

Appendix B: Sample 10-Week Syllabus

Class 5: Customer Relationships (Feb 20th)



Customer Relationships

Get/Keep/Grow

Learning objectives after presentation and critiques

Concepts Students Should Understand

- How teams *get* customers into their sales channel and move them successfully through the sales cycle.
- How to *keep* them as customers.
- How to *grow* additional revenue from those customers over time.
- Students should understand how to develop “get customer” experiments to determine tactics that move customers into and through the sales funnel in a repeatable and scalable way.
- Ensure that the students have an understanding of the concept of “Lifetime Value of a Customer” and how to calculate this figure and incorporate it into their customer acquisition strategies.

Appendix B: Sample 10-Week Syllabus

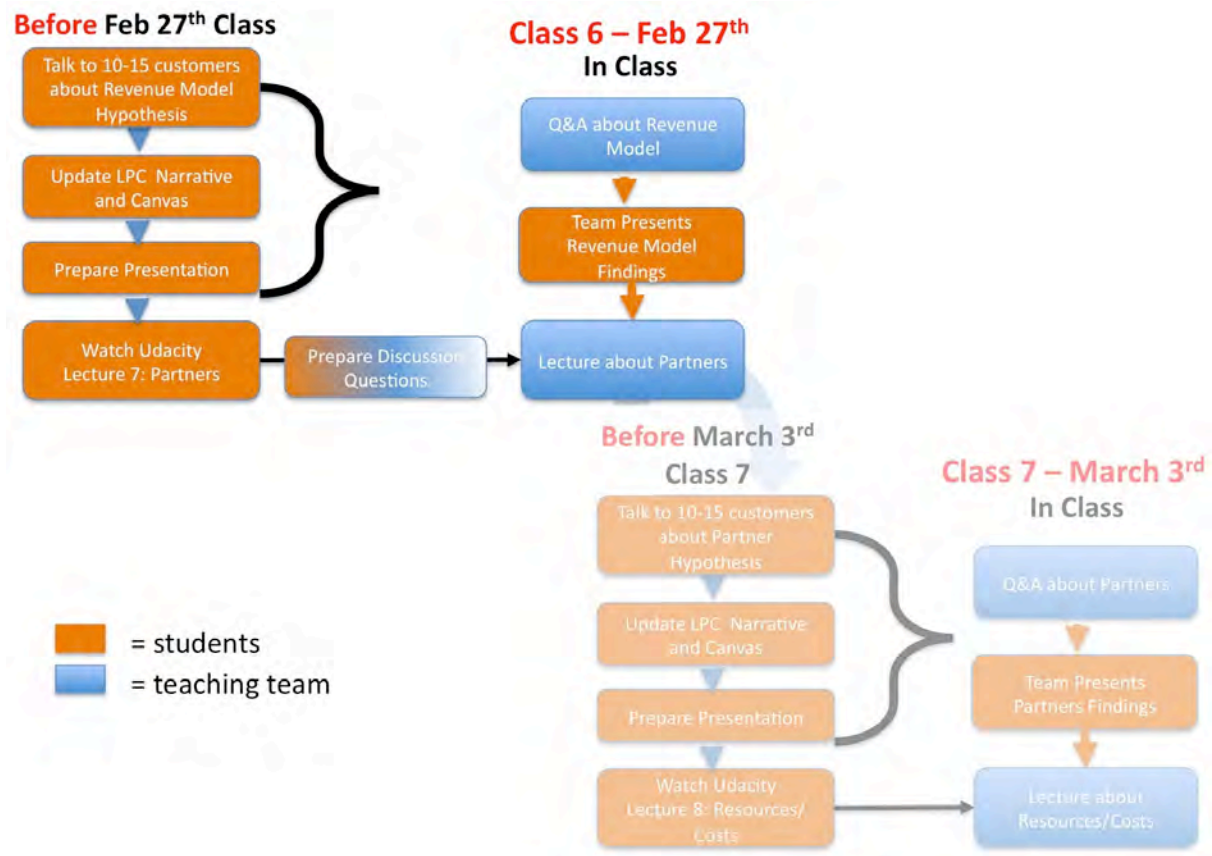
<p>Presentation for today's Feb 20th class</p> <p>Customer Relationships</p>	<ul style="list-style-type: none"> • Slide 1: Title slide. • Slide 2: Business Model Canvas with any changes marked in red and multi-sided markets shown in different colors—is this a multi-sided market? • Slide 3-n: What were your pass/fail metrics for each “Get” test/methodology: <ul style="list-style-type: none"> ○ What is your customer acquisition cost? ○ What is your customer lifetime value? ○ Build demand creation budget and forecast. • Slide 4: What did you learn about your Customer Relationships (Get/Keep/Grow)? <ul style="list-style-type: none"> - Hypothesis: Here's What we Thought - Experiments: Here's What we Did - Results: Here's What we Found - Action: Here's What we Are Going to Do Next • Slide 5: Diagram Get/Keep/Grow and annotate it with the key metrics <p>For Web teams: Demo working Web site and analytics up and running. Show where your visitors are coming from (marketing campaign, search engine, etc.) and how their behavior differs.</p> <ul style="list-style-type: none"> ○ What were your hypotheses about your web site results? ○ Show “search engine marketing” (SEM) results. <p>For Physical products show <u>demo</u> prototype, model, and/or Kickstarter campaign.</p>
<p>Reading for Feb 21st for Revenue Model</p>	<p><i>SOM</i> pp. 180-188: Revenue and Pricing Hypotheses; pp. 260-269: Verify Business Model; pp. 438-456: Metrics that Matter; and pp. 528: Validate Financial Model.</p>
<p>Presentation For next week's Feb 27th class</p> <p>Revenue Model</p>	<ul style="list-style-type: none"> • Talk to at least 10-15 potential customers. • Slide 1: Cover slide. • Slide 2: Current Business Model Canvas with any changes marked. • Slide 3: What were your hypotheses about revenue model and pricing? • Slide 4: What experiments do you run to test your Revenue Model and Pricing? • Slide 4: Diagram of payment flows. • Slide 5: Rough three-year income statement to show you have a real business with your revenue model, channel, acquisition costs, etc. • Slide 6 - n: What did you learn about your Revenue Model and

Appendix B: Sample 10-Week Syllabus

	<p>Pricing?</p> <ul style="list-style-type: none">- Hypothesis: Here's What we Thought- Experiments: Here's What we Did- Results: Here's What we Found- Action: Here's What we Are Going to Do Next <ul style="list-style-type: none">• Post discovery narratives on Launchpad Central.
Viewing for Feb 26th	<ul style="list-style-type: none">• Watch Udacity Lesson 7: <i>Partners</i>• Submit your 100-word discussion question assignment in advance of class: What are the most important things you need from partners? Why?

Appendix B: Sample 10-Week Syllabus

Class 6: Revenue Streams (Feb 27th)



Class 6 Revenue Streams

Learning objectives after presentation and critique

Concepts Students Should Understand

- Revenue model = the strategy the company uses to generate cash from each Customer Segment:
 - Direct Sales, licensing, subscription.
- Within the revenue model, how do I price the product?
 - Pricing is a *tactic*.
 - Revenue model is the *strategy*.
- This is not about income statement, balance sheet, and cash flow. Those are operating details that are derived after a proven Revenue Model and pricing.

Appendix B: Sample 10-Week Syllabus

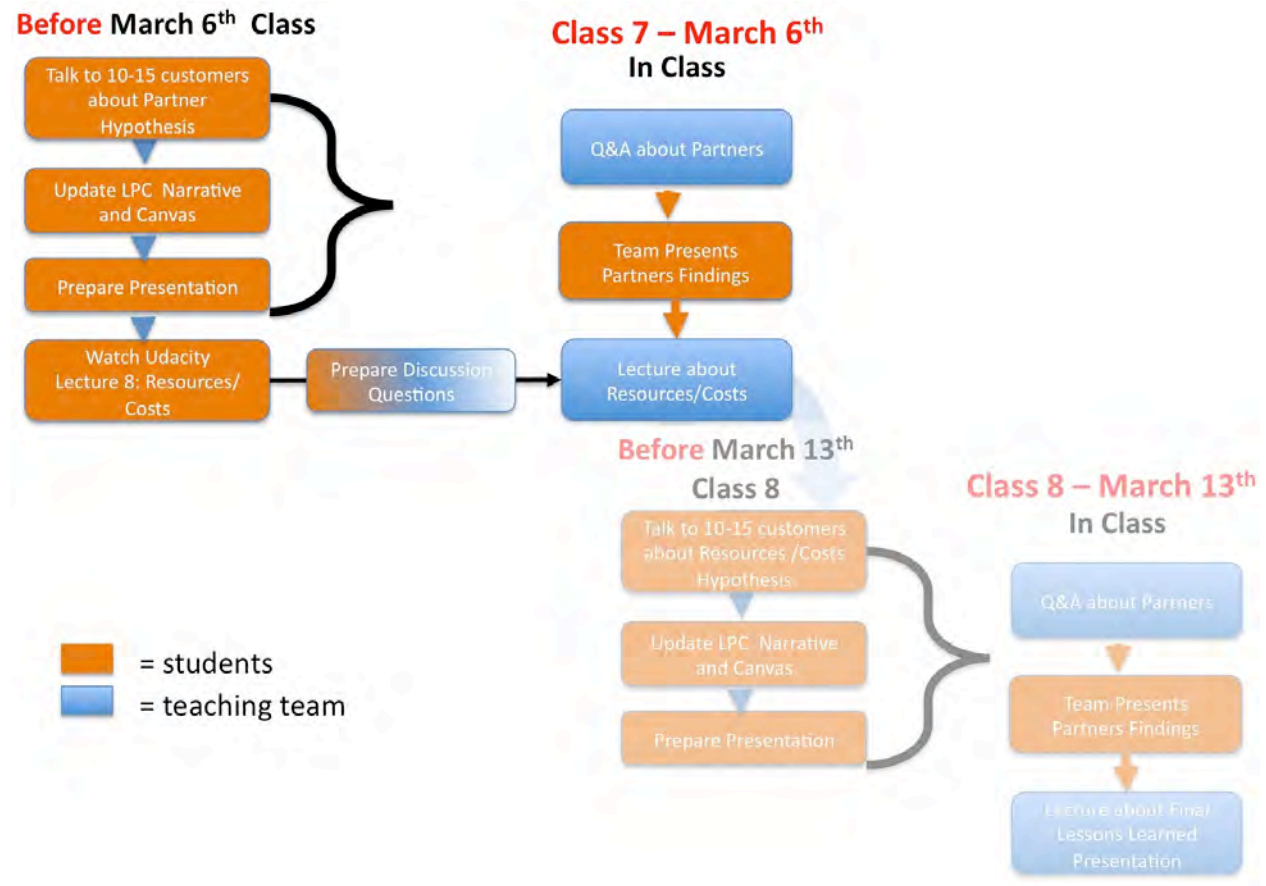
<p>Presentation for today's Feb 27th class</p> <p>Revenue Model</p>	<ul style="list-style-type: none"> • Slide 1: Cover slide. • Slide 2: Current Business Model Canvas with any changes marked. • Slide 3: What were your hypotheses about revenue model and pricing? • Slide 4: What experiments do you run to test your Revenue Model and Pricing? • Slide 4: Diagram of payment flows. • Slide 5: Rough three-year income statement to show you have a real business with your revenue model, channel, acquisition costs, etc. • Slide 6 - n: What did you learn about your Revenue Model and Pricing? <ul style="list-style-type: none"> - Hypothesis: Here's What we Thought - Experiments: Here's What we Did - Results: Here's What we Found - Action: Here's What we Are Going to Do Next
<p>Reading for Feb 28th for</p> <p>Partners</p>	<p><i>SOM</i> pp. 176-179: Partners; pp. 406-411: Test Partners; and pp. 484: Partners Checklist.</p>
<p>Presentation for next week's March 6th class</p> <p>Partners</p>	<p>Talk to at least 10-15 potential customers, including partners.</p> <ul style="list-style-type: none"> • Slide 1: Cover slide. • Slide 2: Current Business Model Canvas with any changes marked. • Slide 3-n: What were your hypotheses about what partners will you need? • Why do you need these partners and what are risks? • Why will they partner with you? • What's the cost of the partnership? • Diagram the partner relationships with any dollar flows. • What are the incentives and impediments for the partners? • Slide 4 - n: What did you learn about your Partners? <ul style="list-style-type: none"> - Hypothesis: Here's What we Thought - Experiments: Here's What we Did - Results: Here's What we Found

Appendix B: Sample 10-Week Syllabus

	<ul style="list-style-type: none">- Action: Here's What we Are Going to Do Next• Post discovery narratives on Launchpad Central.
Viewing for March 5th	<ul style="list-style-type: none">• Watch Udacity Lesson 8: <i>Resources, Activities and Costs</i>• Submit your 100-word discussion question assignment in advance of class: What is [or will be] your venture's core competency? Is it vital to providing the Value Proposition? Why?

Appendix B: Sample 10-Week Syllabus

Class 7: Partners (March 6th)



Class 7 Partners

Learning objectives after presentation and critique

Concepts Students Should Understand

- What is a partner?
- Why you need them.
- Types of partners.
- Risks associated with having a partner and how to manage them.
- Suggestions related to selecting a partner as a startup.

Presentation For today's March 6th class

- Slide 1: Cover slide.
- Slide 2: Current Business Model Canvas with any changes marked.
- Slide 3-n: What were your hypotheses about what partners will

Appendix B: Sample 10-Week Syllabus

Partners	<p>you need?</p> <ul style="list-style-type: none"> • Why do you need these partners and what are risks? • Why will they partner with you? • What's the cost of the partnership? • Diagram the partner relationships with any dollar flows. • What are the incentives and impediments for the partners? • Slide 4 - n: What did you learn about your partners? <ul style="list-style-type: none"> - Hypothesis: Here's What we Thought - Experiments: Here's What we Did - Results: Here's What we Found - Action: Here's What we Are Going to Do Next
Reading for March 7th for Resources, Activities, and Costs	<ul style="list-style-type: none"> • SOM pp. 169-175: Resources; pp. 267-269: Can We Make Money; review again pp. 437-456: Metrics that Matter; and pp. 528: Validate Financial Model. • Review Mark Leslie's slides: http://www.slideshare.net/markleslie01/0110-business-model02.
Presentation for next week's March 13th Class Resources, Activities, and Costs	<ul style="list-style-type: none"> • Talk to at least 10-15 potential customers including potential partners, suppliers, and other key R\resources. • Slide 1: Cover slide. • Slide 2: Current Business Model Canvas with any changes marked. • Slides 3 –n: <ul style="list-style-type: none"> ○ Assemble a "Metrics that Matter" spreadsheet. Include people, hardware, software, prototypes, financing, etc. ○ What resources do you need to build this business? How many people? What kind? ○ Diagram the finance and operations timeline: http://steveblank.files.wordpress.com/2011/05/financial-and-ops-timeline.jpg. ○ When will you need these resources? ○ Roll up all the costs from Partners, Resources, and Activities in a spreadsheet by time. • Did anything change about Value Proposition or Customers/Users, Channel, Demand Creation/Partners? • Slide 4 - n: What did you learn about your Resources, Activities and Costs? <ul style="list-style-type: none"> - Hypothesis: Here's What we Thought - Experiments: Here's What we Did - Results: Here's What we Found

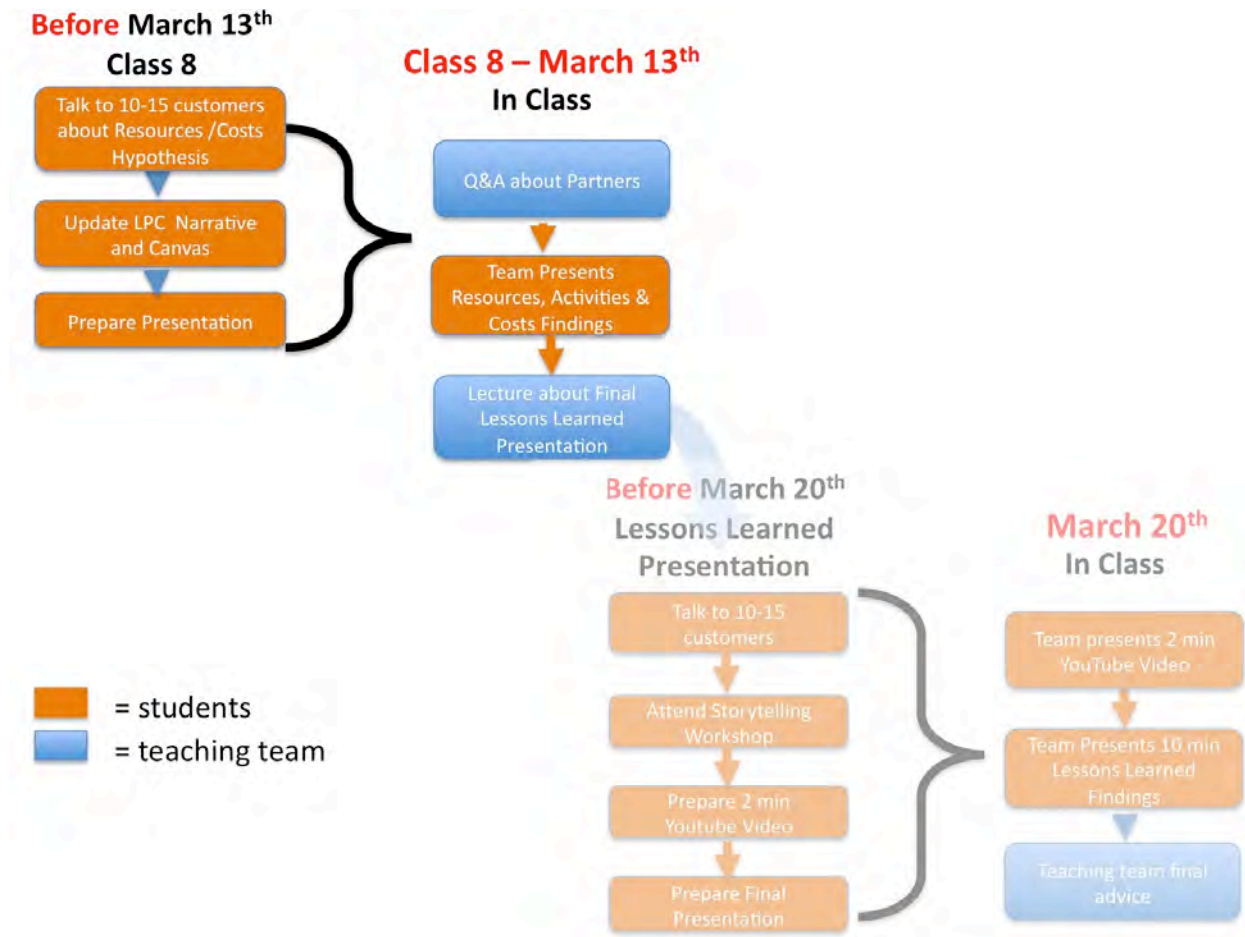
Appendix B: Sample 10-Week Syllabus

	<p>- Action: Here's What we Are Going to Do Next</p> <ul style="list-style-type: none">• Post discovery narratives on Launchpad Central.
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Viewing for March 12th	<ul style="list-style-type: none">• Watch other teams' final presentations.• See http://www.slideshare.net/sblank/ for examples.
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Appendix B: Sample 10-Week Syllabus

Class 8: Resources, Activities, and Costs (March 13th)



Class 8 Resources, Activities, and Costs

Learning objectives after presentation and critique

Concepts Students Should Understand

- Cover the four categories of resources.
 - Cover the types of activities.
 - Talk about the effect of people upon the culture of the startup.
 - Enumerate the ways in which a startup's intellectual property can be protected.
- Add up all the "Metrics That Matter." Is this a business? Worth doing?

Presentation

- Slide 1: Cover slide.

Appendix B: Sample 10-Week Syllabus

for today's March 13th Class

Resources, Activities, and Costs

- Slide 2: Current Business Model Canvas with any changes marked.
- Slide 3 - n:
 - Assemble a "Metrics that Matter" spreadsheet. Include people, hardware, software, prototypes, financing, etc.
 - What resources do you need to build this business? How many people? What kind?
 - **Diagram** the finance and operations timeline:
<http://steveblank.files.wordpress.com/2011/05/financial-and-ops-timeline.jpg>.
 - When will you need these resources?
 - Roll up all the costs from Partners, Resources and Activities in a spreadsheet by time.
- Did anything change about Value Proposition or Customers/Users, Channel, Demand Creation/Partners?
- Slide 4 - n: What did you learn about your Resources, Activities, and Costs?
 - Hypothesis: Here's What we Thought
 - Experiments: Here's What we Did
 - Results: Here's What we Found
 - Action: Here's What we Are Going to Do Next

Viewing for March 14th

- **Watch other teams' final presentations.**
- See <http://www.slideshare.net/sblank/> for examples.

Assignment

- Keep talking to 10-15 customers a week.
- Final 10-minute presentation and a 2-minute video.

Appendix B: Sample 10-Week Syllabus

Lessons Learned Workshop: How to Tell a Story (March 14th)

This 3-hour workshop session is mandatory.

Review: <http://www.slideshare.net/sblank/lessonslearned-day-presentation-skills-training>.

Effective business communication is more than just conveying the facts. It also entails putting the facts in a context and flow that adds to their meaning and puts them in a form that brings the “listener” into the process. The analogy often used is that of a story; that good business communicators are able to combine words, images, and shared contexts (analogies) to crisply convey meaning. This is the art of the great “pitch.”

This session will help prepare you, not only for your team’s final presentation in this class, but with life skills that will hopefully benefit you in multiple venues, for many years. Come prepared to learn about:

Storytelling

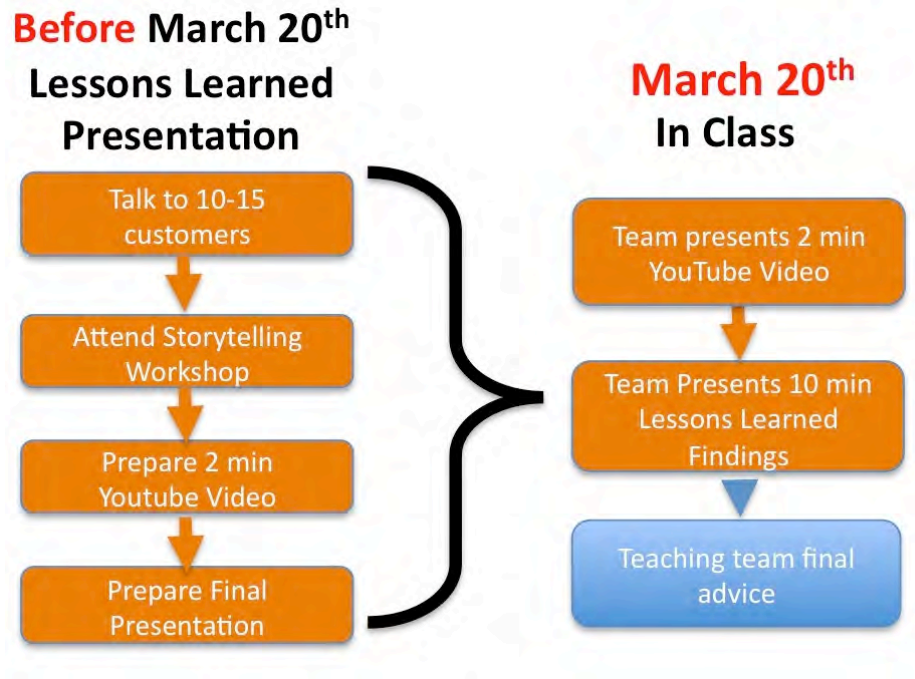
- The World: Market/opportunity, how does it operate
- The Characters: Customers/Value Proposition/product-market fit, pick a few examples to illustrate
- Narrative Arc: Lessons learned how? Enthusiasm, despair, learning, then insight
- Show us: Images and demo to illustrate **learning** = wireframes and pivots to finished product)
- Editing: Does each slide advance the character and plot (learning)

Theater

- Point me at what you want me to see
- Ought to be self-explanatory
- Use analogies

Appendix B: Sample 10-Week Syllabus

Class 10: Team Lessons Learned Presentations (March 20th)



Deliverable: Teams will present a 10-minute "Lessons Learned" presentation about what they learned plus a 2-minute YouTube video summarizing their business.

Appendix B: Sample 10-Week Syllabus

"Lessons Learned" Day Presentation Format

Deliverable: Each team will present a 10-minute "Lessons Learned" presentation (10 minute presentation; 5 minute Q&A) about their business, including a 2-minute video summarizing their journey.

Slide 1: Team Name, with a few lines of what your initial idea was and the size of the opportunity.

Slide 2: Team members – name, background, expertise, and roles on the team.

Storytelling

- The World: Market/opportunity, how does it operate
- The Characters: Customers/Value Proposition/ product-market fit, pick a few examples to illustrate
- Narrative Arc: Lessons learned how? Enthusiasm, despair, learning then insight
- Show us: Images and demo to illustrate **learning** = wireframes and pivots to finished product
- Editing: Does each slide advance the character and plot (learning)

Theater

- Point me at what you want me to see
- Ought to be self-explanatory
- Use analogies

Slide 3: Business Model Canvas **Version 1** (use the Osterwalder Canvas, do not make up your own): "Here was our original idea."

Slide 4: "So here's what we did..." (explain how you got out of the building).

Slide 5: "So here's what we found (what was reality), so then..."

Etc... Every presentation *requires at least three Business Model Canvas slides.*

Side n – "So here's where we ended up." Talk about:

1. What did you learn.
2. Whether you think this a viable business.
3. Whether you want to pursue it after the class, etc.

Final Slides: Click through *each one of your Business Model Canvas slides.*

Final Presentation Tips

Appendix B: Sample 10-Week Syllabus

- You cannot possibly cover everything you learned in ten weeks a 10-minute presentation. Don't try to. The final presentation is partly an exercise in distilling the most critical, surprising, and impactful things you learned in the process.
- Don't fall into the trap of making your final presentation too high-level. If it becomes an overview with no details, you will lose the audience and you will look no smarter than day one. We need to see *why* your Business Model Canvas evolved the way it did. Include anecdotes about **specific customer interviews that support the story you are telling**.
- If you have a demo, prototype, screenshots, etc., include it in your presentation as a supporting character to illustrate your learning and where it has gotten you (it is called "Lessons Learned Day" and not "Demo Day" for a reason). We are not just interested in *what* your product is, but *why* your product is – what did you learn from customers that shaped the product?

Description of Mandatory 2-minute Video

Create a 2-minute video *to be shown at the beginning* of your final presentation. The video should summarize the Customer Discovery journey your team went on, highlighting the key customer insights that took you from your initial idea to today. Storytelling quality is critical. High production value is not (some of the best videos have been very straightforward). Also, make it personal—include the team in the video as well as key "aha" moments. This video is about the discovery process. It is *not* a marketing video for your product.

See sample videos here: TrustScore Final Video (<http://www.slideshare.net/sblank/trust-score-final-2013-berkeley-video>) and Gutwiser Final Video (<http://www.slideshare.net/sblank/gut-wiser-final-2013-berkeley-video>).

Appendix B: Sample 10-Week Syllabus

Lean LaunchPad Frequently Asked Questions (FAQ)

Enrollment

- Admission is by teams of 3 -5. Teams of 4 are preferred.
- Teams must submit a Business Model Canvas and interview with the teaching team prior to the class start date.
- Your entire team must attend the first class to be enrolled.
- The class list and any wait-listed students will be posted online.

Students

- Class is **only** open to students at xxx from any school or department.
- Non-graduates and non-students can serve as advisors to the teams but our priority is providing a learning environment for xxx graduate students.
- Only enrolled students may present in class.
- **Exceptions for team size and external members will be made on a case-by-case basis.**

Company Ideas

Is this class for Web startups only?

No, anyone with any idea and preferably a product can form or join a team.

What if I do want to test a Web idea?

Great. The only condition is that you have to get the site up and deliver the minimum product feature set during the quarter.

I have a great team but no ideas. Do you have any?

Yes, several of our mentors/VC's firms have a variety of ideas and preliminary business models they'd be happy to share. Contact the instructor.

Attendance and Participation

- ***You cannot miss the first class without prior approval.***
- This is very intense class with a very high workload. If you cannot commit to **15-20 hours a week outside the classroom**, this class is not for you.
- There are no remote options for this course—you must take the class on campus.
- The startup culture at times can feel brusque and impersonal, but in reality is focused and oriented to create *immediate action* in time- and cash-constrained environments.
- If during the semester you find you cannot continue to commit the time, immediately notify your team members and teaching team and drop the class.
- If you expect to miss a class, please let the TA and your team members know ahead of time via email.
- We expect your attention during our presentations and those of your fellow students. If you're getting bored, tired, or inattentive, step outside for some air. If we see you reading email or browsing the web we will ask you to leave the class.
- We ask that you use a name card during every session of the quarter.
- During your classmates' presentations you will be required to give feedback online via the LaunchPad Central system. Please bring a laptop to every class and be prepared to give your undivided attention to the team at the front of the room.

Appendix B: Sample 10-Week Syllabus

Intellectual Property

Who owns the intellectual property tested in the Business Model?

1. *You own* what intellectual property (patents, hardware, algorithms, etc.) you brought to class with you. No one has claim to anything you brought to class.
2. You **all** own any intellectual property developed for the class (such as code for a Web-based project) developed during class. If a team is working with a university related-technology (i.e., either research from one of the team members or a university patent), you *must* check with the Office of Technology & Licensing (OTL) to better understand any university licensing and royalties issues.
3. You and your team members need to disclose to each other what IP/licensing rights *any company* you've worked at has to inventions you make at school.
4. If any of you decide to start a company based on the class, *you own only what was written and completed in the class*. You have no claim for work done before or after the class quarter.
5. If a subset of the team decides to start a company they do NOT "owe" anything to any other team members for work done in and during the class. **All** team members are free to start the same company, without permission of the others. (We would hope that a modicum of common sense and fairness would apply.)

I feel my idea/Business Model may become a real company and the "next killer app" and I want to own it *myself* what should I do?

This is more than likely the wrong class to take. Your slides, notes, and findings will be publically shared. Your team owns everything done in class. Discuss intellectual property rights with your team from the beginning. If you can't come to agreement with the team, join another team, pick another project, or drop the class. Remember that anything you do and learn in the class is public.

Will my intellectual property rights be protected when I discuss my ideas with the class?

- **NO**. This is an open class. **There are no non-disclosures**. All your presentations and Customer Discovery and Validation notes, Business Model Canvas, blogs, and slides can, and more likely **will, be made public**.
- This class is *not an incubator*. At times, you will learn by seeing how previous classes solved the same class of problem by looking at their slides, notes, and blogs. Keep in mind that successful companies are less about the original idea and more about the learning, discovery, and execution. (That's the purpose of this class.) Therefore you must be prepared to share your ideas openly with the class. It is a forum for you to "bounce" your ideas off your peers.

Appendix B: Sample 10-Week Syllabus

I'm not comfortable sharing what I learn with others what should I do?

Don't take this class.

Help!

What kind of support will our team have?

The teaching team consists of professors, a TA, and one mentor *per team*. A mentor is an experienced entrepreneur or venture capitalist assigned to your team. They've *volunteered* to help with the class and your team because they love startups. Their job is to guide you as you get out of the building.

How often can we/should we meet with our mentor?

Your mentor is expecting to meet with you *at least* every two weeks face-to-face. You can email them or meet with them more often if they have time.

Can I talk to a mentor not assigned to my team?

By all means, do so. All the mentors are happy to help. However they cannot support your team full time unless your mentor decides to swap places with them.

I have a busy schedule and my mentor can't meet when I want them to.

Mentors have day jobs. Asking them to meet or reply to you ASAP is not acceptable. So plan ahead to allow for a reasonable amount of time for a reply or meeting. Be concise with your request and be respectful of their time.

I need help now.

Your first stop is your TAs. Email or sit down with them during the week if you have a problem. Your professors have office hours every Wednesday at 4:30-6pm. If you need something resolved sooner, email us.

Who are the mentors?

See the mentor list on the class website.

Team Dynamics

What roles are in each team?

Traditionally, each team member is part of the "customer development team." You have to figure out how to allocate the work.

What if my team becomes dysfunctional?

Prepare to work through difficult issues. If the situation continues, approach the teaching team. Do *not* wait until the end of the quarter to raise the issue.

What if one of my teammates is not "pulling his/her weight"?

Try to resolve it within your team. If the situation continues *longer than a week*, please approach the teaching team. Final grades will also reflect individual participation and contribution.

Grading

How do you determine our grade?

Please see the grading criteria section of the syllabus.

What kind of feedback can I expect?

Continual feedback on a weekly basis. Substandard quality work will be immediately brought to your attention.

Appendix C: Sample 5-Day Syllabus

Appendix C: Sample 5-Day Syllabus

This is an example of a 5-day syllabus we use at Columbia and taught at Caltech. Modify it for your own use.

Columbia B7739-002: Advanced Entrepreneurship

Instructors: Steve Blank, Bob Dorf, and Alexander Osterwalder

Credits: 3

TAs: Christopher Fong and Dennis Kwon

Days and Times: Monday – Friday 9:00 am – 5:00 pm

Location: Monday – Thursday: Warren 309; Friday: Warren 310

Texts: Steve Blank and Bob Dorf, *The Startup Owner's Manual*
Alexander Osterwalder and Yves Pigneur, *Business Model Generation*

Prerequisite

Interest/passion in discovering how an idea can become a real company.

Pre-class Assignments

Read pages 14-49 of *Business Model Generation*

Read pages 22-84 of *The Startup Owner's Manual*

View Lectures 0, 1, and 1.5 at: <https://www.udacity.com/course/ep245>

Review course strategy at <http://steveblank.com/category/lean-launchpad/>

Review team presentations at <http://www.slideshare.net/sblank/>

(note the number of customer contacts each team made over the course)

Each team comes into the 1st day of class:

- 1) With a Business Model Canvas. You will present for 3-minutes on the first day
- 2) Prepared to make four or more customer/industry contacts in the area when class is not in session

Goal

Provide an experiential learning opportunity showing how startups and new ventures are built.

Course Description

Appendix C: Sample 5 Day Syllabus

This course provides real world, hands-on learning on what it's like to actually start a scalable company. This class *is not about how to write a business plan*. It's *not an exercise on how smart you are* in a classroom, or how well you use the research library to size markets. And the end result is *not a PowerPoint slide deck for a VC presentation*.

This is a practical class—essentially a lab, not a theory or “book” class. Our goal, within the constraints of a classroom and with a limited amount of time, is to create an entrepreneurial experience for you with all of the pressures and demands of the real world in an early-stage startup.

You will be getting your hands dirty talking to customers, partners, and competitors as you encounter the chaos and uncertainty of how a startup actually works. You'll work in teams learning how to turn a great *idea* into a great *company*. You'll learn how to use a *business model* to brainstorm each part of a company and *Customer Development* to get out of the classroom to see whether anyone other than you would want/use your product. Each day will be a new adventure outside the classroom as you test each part of your business model and then share your hard earned knowledge with the rest of the class.

See <http://steveblank.com/category/lean-launchpad/> for a narrative of a past class.

Class Culture

Startups communicate much differently than inside a university or a large company. *It is dramatically different from the corporate culture most of you are familiar with. At times it can feel brusque and impersonal*, but in reality is focused and oriented to create *immediate action* in time- and cash-constrained environments. 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.

Amount of Work

This class requires a lot of work on your part, certainly compared to many other classes. This class is a simulation of what startups and entrepreneurship are like in the real world: chaos, uncertainty, impossible deadlines in insufficient time, conflicting input, etc.

Team Organization

This class is team-based. Working and studying will be done in teams.

Team projects can be software, physical products, or services of any kind. The teams will self-organize and establish individual roles on their own. There are no formal CEO/VPs. Just the constant parsing and allocating of the tasks that need to be done.

Appendix C: Sample 5 Day Syllabus









Class Roadmap

Each day's class is organized around:

- Student presentations on their "lessons learned" from getting out of the building and iterating or pivoting their business model.
- Comments and suggestions from other teams and teaching teams on the lessons learned.

Team Name Here

Fill Out all 9 Boxes of the Canvas in Order 1 Thru 9

Key Partners  6 Who are our Key Partners? Who are our key suppliers? What are we getting from them? Giving them?	Key Activities  7 What Key Activities do we require? Manufacturing? Software? Supply chain?	Value Propositions  1 Which of our customer's problems are we helping to solve? Which customer needs are we satisfying? What are the Key Features of our product that match customers problem/ need?	Customer Relationships  4 How will we Get, Keep and Grow Customers?	Customer Segments  2 Who are our most important customers? What are their archetypes? What Job do they want us to get done for them?
Key Resources  8 What Key Resources we require? Financial, IP, HR?		Channels  3 Through which Channels do our Customer Segments want to be reached?		
Cost Structure 9 What are the most important costs inherent in our business model? Fixed? Variable?			Revenue Streams  5 How do we make money? What's the revenue model? Pricing tactics?	

A lecture on one of the nine building blocks of a business model (see diagram below, taken from *Business Model Generation*).

"Genius is the ability to make the most mistakes in the shortest amount of time."

Appendix C: Sample 5 Day Syllabus

Monday

Time: 9:00 – 11:30 am

Lecture 0: Class Introduction

- Teaching Team Introductions
- Class Goals
- Teaching Philosophy
- Expectations
- Team Introductions: Each team will present its Business Model Canvas

Time: 11:30 am – 12:30 pm

Working Lunch

Time: 12:30 – 1:30 pm

Lecture 1: Business Model/Customer Development

Class Lecture: The Business Model/Customer Development

What is a business model? What are the 9 parts of a business model? What are hypotheses? What is the Minimum Feature Set? What experiments are needed to test business model hypotheses? What's "getting out of the building?" What is market size? How do you determine whether a business model is worth doing?

Time: 1:30 – 3:00 pm

Lecture 2: Customer Discovery: The Art

Class Lecture: How to Talk to Customers

Understand the problem, understand the solution. Why it's different than selling.

Time: 3:00 – 5:00 pm (start may be delayed)

Get Out of the Building!

We expect you to have set up meetings to talk to potential customers in the area.

Read:

- *The Startup Owner's Manual*, pp. 195-199
- Giff Constable, "12 Tips for Early Customer Development Interviews":
<http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews/>

In a startup there is no "spare time."

Appendix C: Sample 5 Day Syllabus

*Deliverables for **tomorrow**, Tuesday*

Read:

- *Business Model Generation*, pp. 86-111, 135-145
- *The Startup Owner's Manual*, review pp. 53-84, 195-199
- Steve Blank, "What's a Startup? First Principles":
<http://steveblank.com/2010/01/25/whats-a-startup-first-principles/>
- Steve Blank, "Make No Little Plans – Defining the Scalable Startup":
<http://steveblank.com/2010/01/04/make-no-little-plans---defining-the-scalable-startup/>
- Steve Blank, "A Startup is Not a Smaller Version of a Large Company":
<http://steveblank.com/2010/01/14/a-startup-is-not-a-smaller-version-of-a-large-company/>

You will be presenting your results tomorrow morning.

*Team Presentation for **tomorrow**, Tuesday:*

- Market size.
- Type of business: IP, licensing, startup, unknown.
- Proposed experiments to test Customer Segment, Value Proposition, channel, and revenue model of the hypotheses:
 - What constitutes a pass/fail signal for each test (i.e., at what point would you say that your hypothesis wasn't even close to correct)?

Appendix C: Sample 5 Day Syllabus

Tuesday

Time: 9:00 – 11:00 am

Team Presentations

Team Presentations: 5 minutes each (all teams):

- Slide 1: Cover slide (Appendix A, slide 1)
- Slide 2: Current Business Model Canvas with any changes marked
- Slide 3: Tell us about your market size (TAM/SAM/Target)
- Slide 4: What type of business are you building?: IP, licensing, startup, unknown
- Slide 5: What are your proposed experiments to test Customer Segment, Value Proposition, channel, and revenue model of the hypotheses:
 - What constitutes a pass/fail signal for each test (i.e., at what point would you say that your hypothesis wasn't even close to correct)?

Time: 11:00 am – 12:30 pm

Lecture 3: Value Proposition/Customer Segments

Class Lecture: Value Proposition

What is your product or service? How does it differ from an idea? Why will people want it? Who's the competition and how does your customer view these competitive offerings? Where's the market? What's the *Minimum Feature Set*? What's the Market Type? What was your inspiration or impetus? What assumptions drove you to envision this? What unique insight do you have into the market dynamics or into a technological shift that makes this a fresh opportunity?

Who is the customer? User? Payer? How are they different? Why do they buy? How can you reach them? How is a business customer different from a consumer? What is a multi-sided market? What is segmentation? What is an archetype?

Time: 12:30 – 1:30 pm

Working Lunch

Time: 1:30 – 2:00 pm

Lecture 4: Business Model Canvas Examples

Class Lecture: Best Practice Examples in the Evolution of Business Models

Appendix C: Sample 5 Day Syllabus

Time: 2:00 – 3:00 pm

Lecture 5: Corporate Entrepreneurship: Part I

Class Lecture: The Startup Inside of a Company

Sustaining versus disruptive innovation. Impediments to innovation.

Time: 3:30 pm (approx.)

Get Out of the Building!

We expect you to have set up meetings to talk to potential customers in the area.

*Deliverables for **tomorrow**, Wednesday*

Read:

- *Business Model Generation*, pp. 127-133, 146-150, 161-168, and 200-211
- *The Startup Owner's Manual*, pp. 85-111, 189-255, and 406-412

*Team Presentation for **tomorrow**, Wednesday:*

- Get out of the building and talk to as many people as you can.
- What were your Value Proposition hypotheses?
 - What did potential customers think about your Value Proposition hypotheses?
 - Follow-up with Survey Monkey (or similar service) to get more data.

Appendix C: Sample 5 Day Syllabus

Wednesday

Time: 9:00 am – 12:30 pm

Team Presentations

Team Presentations: **maximum 10 minutes each** (all teams)

- Slide 1: Cover slide
 - Slide 2: Current Business Model Canvas with any changes marked
 - Slide 3 - n: What did you learn about your Value Proposition from talking to your first customers?
 - Hypothesis: Here's What we Thought
 - Experiments: So Here's What we Did
 - Results: So Here's What we Found
 - Iterate: So Here's What we Are Going to Do Next
-

Lecture 6: Channels/Get, Keep, Grow/Revenue Model

Class Lecture: **Distribution Channels/Customer Relationships/Revenue Model**

What's a channel? Physical versus virtual channels. Direct channels, indirect channels, OEM. Multi-sided markets. B-to-B (business to business) versus B-to-C (business to consumer) channels and sales.

How do you Get, Keep, and Grow customers? How does it differ on the Web versus other channels? Evangelism vs. existing need or category? General marketing, sales funnel, etc. How does demand creation differ in a multi-sided market?

What's a revenue model? What types of revenue streams are there? What are pricing tactics? How do revenue model and pricing differ on the Web versus other channels? How does this differ in a multi-sided market?

Time: 12:30 – 1:30 pm

Working Lunch

Time: 1:30 – 2:00 pm

Lecture 7: Business Model Canvas Examples

Class Lecture: **Best Practice Examples**

Appendix C: Sample 5 Day Syllabus

Time: 2:00 – 3:30 pm

Lecture 8: Corporate Entrepreneurship: Part II

Class Lecture: The Startup Inside of a Company

Sustaining versus disruptive innovation. Impediments to innovation.

Time: 3:30 – 5:30 pm

Get Out of the Building!

We expect you to have set up meetings to talk to potential customers in the area.

*Deliverables for **tomorrow**, Thursday*

Read: *The Startup Owner's Manual*, pp. 227-256 and 277-342

*Team Presentation for **tomorrow**, Thursday*

- Get out of the building and talk to 10-15 potential channel partners face-to-face (salesmen, OEMs, distributors, etc.).
- What were your hypotheses about who/what your channel would be? Did you learn anything different?
- Present and explain your marketing campaign. How will you Get customers?
- Did anything change about your Value Proposition?

Appendix C: Sample 5 Day Syllabus

Thursday

Time: 9:00 – 10:30 am

Team Presentations

Team Presentations: 10 minutes each (all teams)

- Slide 1: Cover slide
- Slide 2: Current Business Model Canvas with any changes marked
- Slide 3: What did you learn about your Value Proposition from talking to your first customers?
 - Hypothesis: Here's What we Thought
 - Experiments: So Here's What we Did
 - Results: So Here's What we Found
 - Iterate: So Here's What we Are Going to Do Next

Time: 10:30 – 11:30 am

Guest Speaker: Fred Wilson, Union Square Ventures

Time: 11:30 am – 12:30 pm

Team Presentations: 10 minutes each (all teams) continued

Time: 12:30 – 1:30 pm

Working Lunch

Time: 1:30 – 2:30 pm

Lecture 9: Partners, Key Resources, and Activities

Class Lecture: Partners

Who are partners? Strategic alliances, competition, joint ventures, buyer supplier, and licensees. What resources do you need to build this business? How many people? What kind? Any hardware or software you need to buy? Any IP you need to license? How much money do you need to raise? When? Why?

Time: 2:30 – 3:00 pm

Lecture 10: Business Model Canvas Examples

Class Lecture: Best Practice Examples

Appendix C: Sample 5 Day Syllabus

Time: 3:00 – 5:00 pm

Get Out of the Building!

We expect you to have set up meetings to talk to potential customers in the area.

*Deliverables for **tomorrow**, Friday*

Read:

- *Business Model Generation*, pp. 200-211
- *The Startup Owner's Manual*, pp. 406-412

Final Team Presentation for **tomorrow, Friday**

- Get out of the building and talk to 10-15 customers.

Appendix C: Sample 5 Day Syllabus

Friday

Time: 9:00 am – 12:00 pm

Team *Final* Presentations

Team Presentations: maximum 15 minutes each (all teams)

- Slide 1: Cover slide
- Slide 2: Current Business Model Canvas with any changes marked
- Slide 3: What did you learn about your Value Proposition from talking to your first customers?
 - Hypothesis: Here's What we Thought
 - Experiments: So Here's What we Did
 - Results: So Here's What we Found
 - Iterate: So Here's What we Are Going to Do Next

Time: 12:00 – 1:00 pm

Lunch

Time: 1:00 – 2:00 pm

Team *Final* Presentations continued

Time: 2:00 – 3:00 pm

Lecture 11: Costs and Metrics that Matter

Class Lecture:

Importance of cash flows. When do you get paid vs. when do you pay others?

Pivot or Proceed: What data you need to assemble, and how to determine whether you have validated your business model to the point where moving forward makes sense.

Appendix D: Sample Life Sciences Syllabus

Appendix D: Sample Life Sciences Syllabus

I-Corps @ NIH

Course Title:	I-Corps @ NIH
Class Length	Oct 6 th – Dec 10 th 11 class sessions
<i>Opening Class:</i>	October 6 th , 7 th , 8 th all day
<i>On-line Classes:</i>	Tuesdays, Oct 14 th , 21 st , 28 th , Nov 4 th , 11 th and 18 th 9:00 -12:30 pm PST via Webex
<i>Final Presentations:</i>	Dec 9 th – 10 th all day
Location:	Microsoft: 5404 Wisconsin Ave, Chevy Chase, MD 20815 5 th floor
Lead Instructors:	Steve Blank, Jerry Engel, Karl Handelsman, Allan May, John Blaho
Node Instructors:	Andre Marquis – Bay Area Node: Jonathan Fay - University of Michigan, Edmund Pendleton/Dean Chang, Bob Storey –DC Node, Keith McGreggor - Georgia Tech, Frank Rimalovski - NYCRIN Node
Teaching Assistant:	Brandy Nagel – Georgia Tech
Office Hours:	Mandatory each week. See online signup sheet.
Texts:	<i>Startup Owner's Manual:</i> Blank & Dorf <i>Business Model Generation:</i> Osterwalder, et al <i>Talking to Humans:</i> Constable & Rimalovski For Device Teams: <i>BioDesign:</i> The Process of Innovating Medical Technologies: Yock, et al
Online Lectures:	On Launchpad Central: https://launchpadcentral.com
Software:	Launchpad Central: https://launchpadcentral.com

Why Take This Class?

After teaching hundreds of teams how to commercialize their research we now know how to make startups in therapeutics, diagnostics and devices fail less, increasing their odds for commercial success.

Translational medicine - the process of moving research from the lab bench to the bedside - takes more than just improving technology. It requires a parallel track of optimizing the other parts of a business that are essential for turning an idea into a profitable company.

That's what this Lean LaunchPad class does – it provides real world, hands-on learning on how to reduce commercialization risk in early-stage therapeutics, diagnostics and device ventures. We do this by helping teams *rapidly*:



Appendix D: Sample Life Sciences Syllabus

- define clinical utility before spending millions of dollars
- understand who their core and tertiary customers are, and the sales and marketing process required for initial clinical sales and downstream commercialization
- assess intellectual property and regulatory risk before they design and build
- know what data will be required by future partnerships/collaboration/purchases before doing the science
- identify financing vehicles before you need them

Class Strategy

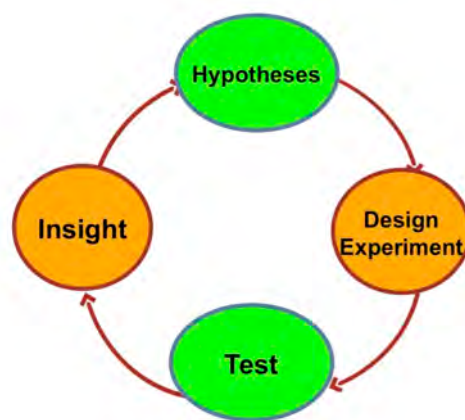
This is a practical class – essentially a lab, not a theory or “book” class. Our goal, within the constraints of a classroom and a limited amount of time, is to *help you find a repeatable and scalable business model for your company. This will allow you to build a company with substantially less money and in a shorter amount of time than using traditional methods.*

The class uses the Lean Startup method. Rather than engaging in months of business planning, the method assumes that all you have is a series of untested hypotheses—basically, good guesses about clinical utility, who the customer is, payers, regulation, intellectual property, clinical trial requirements and objectives, etc. And that regardless of how elegant your plan, the reality is that most of it is wrong. You need to *get out of your lab and out of your building* to search for the facts that validate or invalidate your hypotheses, and ultimately enable you to pursue strategies that will accelerate the launch and development of your business.

Our class formalizes this *search for a business model*. We do it with a process of hypothesis testing familiar to every scientist and clinician. In this class you’ll learn how to use a *business model* canvas (a diagram of how a company will create value for itself and its customers) to frame your hypotheses.

Second, you’ll “*get out of the building*” using an approach called *Customer Development* to test your hypotheses. You’ll run experiments with customers/partners and collect evidence about whether each of your business hypotheses is true or false. That means that every week you’ll be talking to customers, partners, regulators, payers and competitors outside the lab testing your assumptions about clinical utility, partners, IP, regulatory issues, product features, pricing, distribution channels. (You’ll talk with at least 100 of them during the class.)

Finally, based on the customer and market feedback you gathered, you will use *agile development* to rapidly iterate your product or concept to build/design something



Appendix D: Sample Life Sciences Syllabus

customers would actually buy and use. This class requires you to be nimble and fast; you'll iterate on hypotheses and rapidly assemble minimum viable products (MVPs) and immediately elicit customer feedback. Then, using those customers' input to revise your assumptions and hypotheses, you'll start the cycle over again, testing redesigned offerings and making further small adjustments (iterations) or more substantive changes (pivots) to ideas that aren't working.

This process of making substantive changes to one or more of your business model hypotheses – called pivots – before you raise and spend millions or tens of millions dollars, helps you avoid huge future costs and potentially unforeseen dead-ends when far down the road of development. (A pivot might mean changing your position in the value chain. For example, your company may become an OEM supplier to hospital suppliers rather than selling directly to physicians.) Other pivots may move your company from a platform technology to becoming a product supplier, or from a manufacturer of a therapeutic drug to a diagnostic company or from a device requiring a PMA to one that requires a 510(k).

Some teams may make even more radical changes. For example when one team in a prior course discovered the “*right*” customer, they changed the core technology (the basis of their original idea!) used to serve those customers. Another team reordered their device's feature set based on customers' stated needs.

Instructional Method

The class uses eight teaching methods that may be new to you. These include: 1. experiential learning, 2. team-based, 3. a “flipped” classroom, 4. domain specific lectures, 5. weekly presentations, 6. team teaching, 7. observing other teams and providing constructive feedback, and 8. LaunchPad Central.

1. Experiential Learning

This class is not about the lectures. **The learning occurs outside of the classroom through conversations with customers.** Each week your team will conduct a *minimum* of 10 customer interviews focused on a specific part of the business model canvas. This class is a simulation of what startups and entrepreneurship is like in the real world: chaos, uncertainty, impossible deadlines with insufficient time, conflicting input, etc.

2. Team-based

This class is team-based. Working and studying will be done in teams of three; a C-level executive, Principal Investigator, and Industry Expert. You will be admitted as a team. Admission is based on NIH criteria and an interview with the teaching team. The commitment of the entire team to the effort and necessary hours is a key admission criterion.

Each and every team member *should participate in customer discovery activities (out of the building hypotheses testing)* talking with customers and partners. **You cannot delegate customer discovery.** Teams will self-organize and establish individual roles on

Appendix D: Sample Life Sciences Syllabus

their own. There are no formal CEO/VP's, just the constant parsing and allocating of the tasks that need to be done.

In addition to the instructors and TA, each team will be assigned an Industry Expert knowledgeable in your field (an experienced entrepreneur, service provider, consultant, or investor) to provide assistance and support.

3. The Flipped Classroom

Unlike a traditional classroom where the instructor presents lecture material, you'll watch core weekly lectures on your time. These lectures contain the information you will need to complete that week's customer interviews. What is traditional homework, (summarizing your weekly team progress updates) is now done in class, with the teaching team offering personalized guidance to each team. Note: The work you will be presenting weekly will be based on the on-line lecture you watched the prior week.

4. Domain Specific Lectures

Online lectures are supplemented by a deep-dive in-class lectures and discussions tailored to your specific market: therapeutics, diagnostics and devices.

5. You Present Your Progress Weekly

Each week all teams will present an 8-minute summary of what you learned testing specific hypotheses. The teaching team will provide advice and guidance.

6. Team Teaching and the Inverted Lecture Hall

Sitting in the *back* of the classroom are experienced instructors and Industry Experts who've built and/or funded world-class startups and have worked with hundreds of entrepreneurial teams in therapeutics, diagnostics and devices who will be commenting and critiquing each team's progress. While the comments may be specific to each team, the insights are almost always applicable to all teams. Pay attention.

7. Actively Observing Other Teams and Providing Written Constructive Feedback and Grades

The class is a learning cohort. It is your responsibility to help each other and learn from one another's experiences. This form of collaborative learning will accelerate your team's progress. Each week, when other teams are presenting, you will be logged into the class on-line management tool, *LaunchPad Central*, where you will provide feedback, ideas, helpful critiques and suggestions for each team as they present. You will also assign a grade solely on your individual assessment of their performance. This feedback is viewable by all members of the class, and may – at the discretion of the instructors – be shared for class discussion.

8. Keeping Track of Your Progress: LaunchPad Central

Each week as you get of the building and talk to customers we have you summarize what you learned using an online tool called LaunchPad Central. The tool automatically collects and displays your current hypotheses and the ones you've invalidated. This allows you to share what you've learned with the teaching team and your industry experts. This, along with your weekly presentations is how we monitor your progress.

Appendix D: Sample Life Sciences Syllabus

Class Culture

Startups communicate much differently from the university or company culture you may be familiar with. **At times it may feel relentlessly direct**, but in reality it is focused and designed to create *immediate action* in time-, resource-, and cash-constrained environments. We have limited time and we push, challenge, and question you in the hope that you'll learn quickly. The pace and the uncertainty accelerate as the class proceeds.

We will be direct, open, and tough – just like the real world. This approach may seem harsh or abrupt, but it is a direct reflection of our desire for 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.

This class pushes many people past their comfort zone. If you believe that the role of your instructors is to praise in public and criticize in private, **do not take this class**. You will be receiving critiques in front of your peers every week.

Amount of Work

Teams that have completed this course report spending up to 20 hours each week on course activities. Getting out of the classroom is a majority of the effort is about. Teams are expected to complete **at least 10 in-person or Skype video interviews each week** focused on the business model canvas area of emphasis for that week. This means that in total over the 10-week course you will have completed 100 or more interviews.

If you believe you're too busy already running your company (rather than learning how to make it successful) **do not take this class**. You cannot delegate the customer interviews.

Class Organization:

Three-Day I-Corps Workshop:

The class starts with your entire NIH I-Corps team in Bethesda, MD on Oct 6th -8th 2014 for the initial lectures and workshops. In these three days your team will present what you are learning to the entire class of 25-teams. At the end of each team's presentation the teaching team will offer observations and guidance. In addition, we'll learn and practice the art of customer discovery and in any remaining time make customer calls.

Post Workshop, Out of the Building Effort

When the NIH I-Corps teams return to their institutions, you are required to get out of the lab/building to test your business model assumptions. This is a team effort. The curriculum will then continue weekly online via WebEx.

Online Curriculum: Weekly Presentations and Progress Tracking

The 25 teams will be divided into three groups: therapeutics, diagnostics and devices.

Appendix D: Sample Life Sciences Syllabus

Each team will present an 8-minute weekly progress report to members of the teaching team via WebEx. At the end of each team's presentation we will offer observations and suggestions. **This is how we monitor your progress and give you guidance.** When your team is not presenting, each member of your team will be grading your peers.

Online Curriculum: Weekly Advanced Lectures

Immediately following the team presentations, each of the therapeutics, diagnostics and devices instructors will lecture via WebEx on the next portion of the business model canvas. The instructors will run six weekly on-line lectures, Oct 14th, 21st, 28th, Nov 4th, 11th and 18th that will step through each of the 9 sections of the business model canvas.

I-Corps "Lessons Learned" Presentations

The entire I-Corps team (C-Level Execs, Industry Experts and Principal Investigator) will return to Bethesda, MD on Dec 9th and 10th. There the teams will present to the teaching team and Venture Capitalists the Lessons Learned in their exploration of commercial feasibility.

Deliverables

Meaningful customer discovery requires the development of a minimum viable product (MVP). Therefore, each team should have the applicable goal of the following:

1. Medical Devices: teams building a medical device are expected to build a prototype or some key elements of the device, and a cost of bill of materials.
2. Diagnostics: teams developing diagnostic products are expected to develop a graphic outlining the how the diagnostic would be used including the next steps clinically that a physician would take based on the data provided by the test, plus:
 - a. In vitro diagnostics: a cardboard mockup of the kit and short description of the minimum targeted sensitivity and selectivity; or
 - b. In vivo diagnostics: a mock up or example report of the diagnostic data; or
 - c. Other diagnostic-like products: case by case MVP to be developed with the agreement of the instructor
3. Research Tools: teams developing research tools are expected to develop a breadboard of the instrument and/or reagent, a graphic demonstrating its anticipated use in research, and an explicit description of the anticipated change to current work and/or data flows.
4. Therapeutics: teams designing therapeutics are expected to define the types and quality of data that would be required to incentivize a pharma company to seek a commercial partnership or collaboration with your company.
5. Your weekly LaunchPad Central narrative is an integral part of your deliverables. It's how we measure your progress and it's required that you maintain and update it at least once per week, if not after every customer insight.
 - a. Your LaunchPad Central narrative is to be updated no later than Monday morning of each week
6. Weekly your team will present an 8-minute PowerPoint summary of progress.

Appendix D: Sample Life Sciences Syllabus

7. As the final deliverable, your team will present:
 - a. a 10-minute PowerPoint summary of Lessons Learned, and
 - b. a 2-minute YouTube video of your technology

Logistics

Class meets in the D.C. area October 6th, 7th, 8th - these are full days.

Class meets remotely every Tuesday Oct 14th – Nov 18th for 3 hours.

Class meets again in the D.C. area Dec 9th and 10th - these are full days.

Appendix D: Sample Life Sciences Syllabus

revision 6		For This Weeks Class		Reading and Lecture to Prepare You for Discovery in the Coming Week					
Date	Class No.	Team Presentation	Slides to Present Required slide format and content	Lecture Needed for coming week Discovery	BMG	SOM	Online Lecture	Other readings and viewings	Syllabus reference
Readings and Video BEFORE CLASS to understand lecture									
6-Oct	1	First Business Model Canvas	1. Standard Title slide / 2. BusModel Canvas, changes in red 3. Market Type 4. TAM/SAM/Target/Yr3 revs 5. Competitors 6. Proposed experiments for Value Proposition, Customer Segments, Channel, Revenue model	Customer Discovery, Business Model Canvas, Value Proposition	14-49 77-87 134-142 200-211	1-75 76-81 112-122 123-124 189-199 472 473-475 487	1, 1.5a, 1.5b 2 CD 41, 42, 44, 46, 50, 01, 00	Read #1 in NOTES	p. 15
6-Oct	1b	Customer Discovery workshop	Watch video in #2 in NOTES below before the workshop	Customer Discovery workshop				Watch video in #2 in NOTES below before the workshop	p. 19
7-Oct	2	Value Proposition	1. Standard Title slide / 2. BusModel Canvas, changes in red / Multisided markets shown in different colors 3. Value Proposition canvas from: businessmodelgeneration.com/downloads/value_proposition_canvas.pdf 4. Value Proposition experiments 5-n. Value Propositions: Hypothesis-Experiment-Result-Change	Customer Segments	127-133 161-168	85-92 203-214 218-219 222-224 260-266 475-477	3	Read 2 blog posts in NOTE #3 and #4 below	p. 21
7-Oct	2b	Advisor / Mentor / Expert workshop	Network with advisors / mentors / industry experts	Industry Expert / Mentor workshop					p. 24
7-Oct	2c	LaunchPad Central Training	Network with mentors	LaunchPad Central Training					p. 24
8-Oct	3	Customer Segments	1. Standard Title slide / 2. BusModel Canvas, changes in red 3. Value prop / Customer segmentation canvas, from: businessmodelgeneration.com/downloads/value_proposition_canvas.pdf 4. How is the problem solved today? 5. Are there multiple customer segments? 6-n. Customer Segment: Hypothesis-Experiment-Result-Change 7. Customer workflow diagram 8. Customer archetype diagram	Activities	36-37 188	487	8		p. 26
14-Oct	4	Activities	1. Standard Title slide / 2. BusModel Canvas, changes in red 3-n. What are your critical Activities? 4. What experiments did you run to validate that these are activities? 5 Rough diagram of activities and resources/partners needed to accomplish them 6 What did you learn about your activities?	Resources		169-175 437-456 528			p. 42
21-Oct	5	Resources	1. Standard Title slide / 2. BusModel Canvas, changes in red 3-n. What are your critical Resources? (Resources should match critical Activities) 4 What experiments did you run to validate that these resources can be acquired? 5 Rough diagram of activities and resources/partners needed to accomplish them 6-n: What did you learn about your resources?	Partners	109-113	176-179 267-271 437-446 484 526-527	7		p. 46
28-Oct	6	Partners	1. Standard Title slide / 2. BusModel Canvas, changes in red 3-n. Partner hypotheses n-m. Partner: Hypothesis-Experiment-Result-Changes	Channels		98-105 242-244 332-337 406-411 478	4	View #5 in NOTES below	p. 51
4-Nov	7	Channels	1. Standard Title slide / 2. BusModel Canvas, changes in red 3. Distribution channels and alternatives 4-n. Channel: Hypothesis-Experiment-Result-Change 6. Channel diagram	Customer Relationships	146-153	116-143 296-303 480 489	5		p. 30
11-Nov	8	Customer Relationships	1. Standard Title slide / 2. BusModel Canvas, changes in red 3-n. "Get" test methodology pass/fail metrics n-m. Customer Relationships: Hypothesis-Experiment-Result-Change 6. Annotated get/keep/grow diagram	Revenue models		300-358 260-269 438 457-459 526-528	6		p. 34
18-Nov	9	Revenue models & Costs	1. Standard Title slide / 2. BusModel Canvas, changes in red 3. Revenue model hypotheses 4. Experiments to run for revenue model and pricing 5. Diagram of payment flows 6. Three year income statement 6-n. Value Proposition: Hypothesis-Experiment-Result-Changes					watch story-telling video	p. 38
25-Nov No class									
9-Dec	10	StoryTelling	Presentation dry runs	Lesson Learned workshop				see #6 in NOTES below	p. 51
10-Dec	11	Lessons Learned	Lessons Learned slides PLUS 2 minute video	none					p. 52

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#1	Giff Constable, "12 Tips for Early Customer Development Interviews,"			
#2	https://vimeo.com/groups/204136/videos/41,42,44,46,50,01,04			
#3	Osterwalder VPC#1: businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html			
#4	Osterwalder VPC #2: businessmodelalchemist.com/blog/2012/09/test-your-value-proposition-supercharge-lean-startup-and-custdev-principles.html			
#5	Mark Leslie <i>Value Chain</i> slides at http://www.slideshare.net/markleslie01/070801-value-chain-and-sales-model			
#6	slideshare.net/sblank/UCSF			
Student presentations lag lecture topics by one week, as shown.				
Standard Title slide shows team number, name, description, members, interview count this week, total interviews.				
Business Model Canvas slide is a graphic exported from Launch Pad Central. Changes from last week in red. Make sure that it is legible!				
Make sure that each Hypothesis-Experiment-Result-Change are closely linked in your presentation				

Pre-class preparation for day 1 of the class

Teams are expected to hit the ground running. We assume you and your team have come prepared having read the assigned materials, watched the online lectures, and prepared a set of at least 50 customer contacts to call on including at least 10 in the D.C. area to support 2 days of customer discovery. We expect you to have spoken to 5 customers before the start of the class.

Webinar

- Participate in the LaunchPad Central webinar, week of Sept 22nd

Reading/Viewing: Business Models, Customer Development, and Value Proposition

- Watch [online lessons](#) 1, 1.5a, 1.5b and 2: What We Now Know, Business Models, Customer Development and Value Proposition
- Read: *BMG*: pp. 14-49 The 9 Building Blocks of the Canvas. pp. 77-87 multisided platforms, pp. 134-142 Ideation, pp. 200-211 business model environment
- Read: *SOM*: pp. 1-75 intro to customer development and discovery, market size, pp. 76-81 value proposition and MVP, pp. 112-122 market type, pp. 123-124 competitors, pp. 189-199 getting out of the building/experiments/contacts, pp. 472 market size, pp. 473-475 product features checklist pp. 487 Contacts checklist
- Watch: the "How to Do Customer Discovery" Videos on LaunchPad Central
 - CD41 Pre-Planning: Contacts
 - CD42 Customer Interview Dry Runs
 - CD44 Pass/Fail Experiments
 - CD46 Conducting a Customer Interview
 - CD50 Looking for Insights
 - CD01 Death By PowerPoint
 - CD04 Understanding the Problem
- Read: Giff Constable, "12 Tips for Early Customer Development Interviews," <http://giffconstable.com/2012/12/12-tips-for-early-customer-development-interviews-revision-3/>
- Talk to 5 customers and use what you learn to complete your initial business model canvas
- Record the customer interviews in LaunchPad Central
- Come prepared with a list of 10 additional individuals you will call on while you're in D.C.** Set up and schedule these interviews before you come to D.C.

Appendix D: Sample Life Sciences Syllabus

- Submit your list of contacts to your instructor before class
- Use search tools and look for potential competitors and prior art

Therapeutics teams: Come Prepared to answer:

- What does your Target Product Profile look like?
- Who can quickly confirm that's correct?

All teams: Come Prepared to answer the following questions:

- What's the difference between search and execution?
- What is a business model versus a business plan?
- What is the Business Model Canvas?
- What are the 9 components of the Business Model Canvas?
- What is a hypothesis?
- What do we mean by "experiments"?
- What is Customer Development?
- What are the key tenets of Customer Development?

Presentation for Oct 6th class Business Model

Prepare a presentation to present your business model to the class:

Slide 1: Title Slide

Slide 2: Tell us about your 5 customer interviews. What did you expect, what do you learn, and what are you going to do next?

Slide 3: Show us your Business Model Canvas – for 30 seconds

Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3)

Appendix D: Sample Life Sciences Syllabus

Class 1 Monday Oct 6th

Business Model/Customer Development

Time: 8:30- 9:30 am
Lecture: Kickoff / Course Overview
Instructor: Michael Weingarten/Steve Blank/2 NSF asst directors/Sally Rockey
NIH/Tom Kailil OSTP
Location: Microsoft Bldg. 5th Floor

- Teaching Team Introductions
- Class Goals
- Teaching Philosophy
- Expectations of You

Time: 9:30 am - 1:00 pm
Team Presentations: Business Model / First Interviews – all teams
Location: Microsoft Bldg. 5th Floor

5 minutes each (all teams)

Presentation For today's Oct 6th class

- Slide 1: Title Slide
- Slide 2: Tell us about your 5 customer interviews. What did you expect, what do you learn, what are you going to do next?
- Slide 3: Show us your Business Model Canvas – for 30 seconds
- Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3)

Time: 1:00 -2:00 pm Working Lunch
Lecture: Business Model/Customer Development /Market Type – All teams
Instructor: Steve Blank, Alexander Osterwalder
Location: Microsoft Bldg. 5th Floor/ Lunch 5th floor foyer

- Intro to the Business Model Canvas and customer development
 - a. Mapping the canvas to therapeutics, diagnostics and devices
 - b. Discovery versus selling versus focus groups
- Definition of hypotheses
- Definition of Minimum Viable Product (MVP) in therapeutics, diagnostics and devices
- Constructing experiments in therapeutics, diagnostics and devices
- Explanation of “getting out of the building” in Life Sciences
- Definition of market type (existing, re-segmented, new, or clone)

Appendix D: Sample Life Sciences Syllabus

- How market size/exit strategy differ for therapeutics, diagnostics and devices
 - a. How do you determine whether a business model is worth doing

Time: 2:00 – 2:30 pm
Cohort Lecture: Needs findings – connecting the Value Proposition and Customers
Instructors: Paul Yock
Location: Microsoft Bldg. 5th Floor

Time: 2:30 -3:30pm
Cohort Lecture: Value Proposition
Break into cohorts for therapeutics, diagnostics and devices
Instructors: Karl Handelsman, John Blaho, and Allan May
Location: Microsoft Bldg. 5th Floor, breakout spaces

Time: 3:30- 7:00pm
Customer Discovery Get out of the building!

- Using the contacts you've already prepared and the interviews you've previously scheduled, **interview at least 3-5 potential customers to generate findings** about your value proposition Hypothesis. We encourage you to set up meetings to talk to potential customers in the D.C Area or via Skype before you arrive in D.C.
- Getting a good start and maintain a good pace of discovery interviews has proven to be a key success factor for the best performing teams.

In a startup there is no "spare time."

Time: 7:00 – 8:00 pm
Workshop: Best Practices for Customer Discovery
Owner: John Blaho, Edmund Pendleton
Location: Microsoft Bldg. 5th Floor

- How to call on people you don't know. How to get the most out of the people you do.
- Expectations, speed, tempo, logistics, commitments.
- How do I protect my IP when I speak to partners
- Does Lean work for non-software efforts
- How do I interview"
- How is an interview different than a sales call

Appendix D: Sample Life Sciences Syllabus

Time: 8:00 – 9:00 pm
Workshop: Industry Expert Training
Owner: Andrew Kurtz, Michael Weingarten
Location: Microsoft Bldg. 5th Floor

Homework

Reading evening of Oct 6th for Class 2 Value Proposition

- Read *BMG*: pp. 127-133 Customer Insights, pp. 134-145 Ideation, Multisided & Freemium markets, pp. 161-169 prototyping
- Read *SOM*: pp. 85-92 Customer Segments, pp. 203-226 test problem understanding, pp. 260-266 Have we found product/market fit, pp. 476-477 customer segments checklist
- View: Osterwalder Value Proposition Canvas at <http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html> and <http://businessmodelalchemist.com/blog/2012/09/test-your-value-proposition-supercharge-lean-startup-and-custdev-principles.html>

Viewing evening of Oct 6th for Class 2

- Watch: [online lessons](#) 3 Customer Segments

Prep Presentation for tomorrow's Oct 7th Class: Value Proposition

Talk to at least 3-5 potential customers to generate findings about value proposition

- Slide 1: Title slide
- Slide 2: Hypotheses-Experiments- Results- Change
 - What did you learn about your value proposition from talking to your first customers?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 3: business model canvas with any changes marked in red, Multi-sided markets shown in different colors
- Slide 4: Value Proposition Canvas see: http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf
 - What are the Products/Services, Pain Relievers, and Gain Creators?
 - What's the MVP you'll test?
- Slide 5: So Here's What We Are Going To Do Next Week

Appendix D: Sample Life Sciences Syllabus

Class 2 Tuesday Oct 7th

Value Proposition

Time: 8:30 - 8:45 am

Discussion: Class Q&A about Value Proposition and Customer Discovery

Location: Microsoft Bldg. 5th Floor

- How did Discovery go?
- Surprises?

Time: 8:45 am - 9:30 am

Team Presentations: Value Proposition

Location: Microsoft Bldg. 5th Floor

10 minutes (6 minutes to present, 4 minutes instructor critique) (1 team each from therapeutics, diagnostics, devices)

Presentation For today's Oct 7th class

- Slide 1: Title slide
- Slide 2: Hypotheses-Experiments- Results- Change
 - What did you learn about your value proposition from talking to your first customers?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 3: business model canvas with any changes marked in red, Multi-sided markets shown in different colors
- Slide 4: Value Proposition Canvas see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf
 - What are the Products/Services, Pain Relievers, Gain Creators?
 - What's the MVP you'll test?
- Slide 5: So Here's What We Are Going To Do Next Week

Time: 9:30 am - noon

Cohort Team Presentations: Value Proposition – break into therapeutics, diagnostics and device groups

Location: Microsoft Bldg. 5th Floor

10 minutes (6 minutes to present, 4 minutes instructor critique)

- Slide 1: Title Slide
- Slide 2: Business Model Canvas
- Slide 3: Identify your market type
- Slide 4: Identify Market size (TAM/SAM/Target/Year 1-3)

Appendix D: Sample Life Sciences Syllabus

Time: noon – 1:00pm working lunch
Cohort Lecture: **Customer Segments** specific to therapeutics, diagnostics and device groups
Instructors: Karl Handelsman, John Blaho, Allan May
Location: Microsoft Bldg. 5th Floor

Time: 1:00 – 6:00 pm
Customer Discovery Get out of the building!

- **Interview at least 3-5 potential customers to generate findings** about your value proposition Hypothesis. We encourage you to you set up meetings to talk to potential customers in the D.C Area or via Skype before you arrive in D.C. Getting a good start and maintain a good pace of discovery interviews has proven to be a key success factor for the best performing teams.

In a startup there is no "spare time."

Time: 6:00pm – 6:30pm
Workshop: Principal Investigators Workshop
Location: Microsoft Bldg. 5th Floor

Principal Investigators meet with their program officers. Bring in past PI's to help new ones with value prop, who to talk to and what to ask.

Time: 6:30pm – 7:00pm
Workshop: **C-Level Execs** (Entrepreneurial Leads) Workshop
Location: Microsoft Bldg. 5th Floor

Entrepreneurial Leads meet with past PI's to help new ones understand how to work with PI's and balance relationship with hypotheses testing..

Time: 7:00 – 8:00pm working dinner
Workshop: LaunchPad Central training
Location: Microsoft Bldg. 5th Floor

- Mandatory hands-on Team training on key features
- Creating/updating discovery narrative posts
- Creating/updating business model canvas
- Using audio recordings, pictures in interviews

Appendix D: Sample Life Sciences Syllabus

- Exporting canvas, contacts
- Making an “Ask” of industry experts, faculty, other teams
- Creating team profiles & opportunity assessments

Homework

Reading evening of Oct 8th for Class 3 Customer Segments

- Read *BMG*: pp. 127-133 customer insights, pp. 161-168 prototyping
- Read *SOM*: pp. 85-92 customer segments, pp. 203-214 problem understanding, pp. 218-219 gain customer understanding, pp. 222-224 Market Knowledge, pp. 260-266 product/market fit pp. 476-477 customer segment checklist

Viewing evening of Oct 7th for Class 3 Customer Segments

- Watch: [online lessons](#) 3 customer segments

Prepare Presentation for tomorrow's Oct 8th Class: Customer Segments

Talk to at least 3-5 potential customers to generate findings

- Slide 1: Title slide
- Slide 2-n: What did you learn about your customers?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
 - So Here's What We Are Going To Do Next?
- Slide 3: business model canvas with any changes marked in red, Multi-sided markets shown in different colors
- Slide 4: Value Proposition/Customer Segment Canvas see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf
 - What are the Gains, Pain, Customer Jobs?
 - What's the MVP you'll test?
- Slide 5: How do they solve this problem(s) today? Does your value proposition solve it? How?
- Slide 6: Diagram of Customer workflow
- Slide 7: What is the resulting Customer Archetype? Draw a diagram
- Post discovery narratives on Launchpad Central
- Post discovery narratives on Launchpad Central
- **Device startups start prototype, demo, or model**
- **Drug startups start version one Target Product Profile:** include what data is needed pre-clinically and clinically to validate your therapeutic

Appendix D: Sample Life Sciences Syllabus

Class 3 Wednesday Oct 8th **Customer Segments**

Time: 8:30 - 8:45 am
Discussion: Class Q&A about **Customer Segments**
Location: Microsoft Bldg. 5th Floor

- How did Discovery go?
- Surprises?

Time: 8:45 am - 9:30 am
Team Presentations: **Customer Segments**
Location: Microsoft Bldg. 5th Floor

8 minutes each (1 team each from therapeutics, diagnostics, devices)
Presentation For today's Oct 8th class

- Slide 1: Title slide
- Slide 2-n: What did you learn about your customers?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
 - So Here's What We Are Going To Do Next?
- Slide 3: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors
- Slide 4: Value Proposition/Customer Segment Canvas see:
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf
 - What are the Gains, Pain, Customer Jobs?
 - What's the MVP you'll test?
- Slide 5: How do they solve this problem(s) today? Does your value proposition solve it? How?
- Slide 6: Diagram of Customer workflow
- Slide 7: What is the resulting Customer Archetype? Draw a diagram

Time: 9:30 am – 11:30
Cohort Team Presentations: **Customer Segments** – break into therapeutics, diagnostics and device groups
Location: Microsoft Bldg. 5th Floor

- Presentation format as above

Time: 11:30am -12:30pm
Cohort Lecture: **Activities** specific to therapeutics, diagnostics and device groups
Location: Microsoft Bldg. 5th Floor

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Time: 12:30 - 2:00 pm
Team Discussion: How to succeed in I-Corps Panel
Location: Microsoft Bldg. 5th Floor
Owner: John Blaho and Andrew Kurtz
Panelists: Prior I-Corps SBIR-funded companies

Time: 2:00 pm – 3:30
Team Discussion: Webex training and send off
Location: Microsoft Bldg. 5th Floor
Owner: TA: Brandy Nagel

Homework for next weeks Oct 14th class - Activities

Reading

- *SOM* pp. 180-188 revenue and pricing hypotheses, pp. 260-269 verify business model, pp. 438 metrics that matter, pp. 457-459 financial model, pp. 528 Validate Financial Model
- Device teams Read: *Biodesign*: sections 4.1 Intellectual Property Basics, 4.2 Regulatory Basics, 4.3 Reimbursement Basics

Viewing

- *Watch*: online lesson 8 – Resources, Activities and Costs

Out of the Building

- Talk to at least 10-15 potential customers
-

Prep Presentation for next weeks Oct 14th class Activities

Talk to at least 10-15 potential customers

- Slide 1: Title slide
- Slide 2: What did you learn were your *critical* Activities?
 - Freedom to operate/IP?
 - Clinical Trials?
 - Quality data?
 - Regulatory approval?
- Slide 3: What did you learn about your activities?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 4: What experiments did you run to validate that these are activities?
- Slide 5: business model canvas with any changes marked in red, Multi-sided markets shown in different colors (Is this a multi-sided market?)
-

Appendix D: Sample Life Sciences Syllabus

- Slide 6: Rough diagram of activities and resources/partners needed to accomplish them
- Slide 7: Iterate: So Here's What We Are Going To Do Next Week

**See you next week Oct 14th Tuesdays on-line
9:00 AM – 12:30 PST**

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Class 4 Oct 14th

Activities

Time: 9:00 - 9:15 am
Discussion: Class Q&A about **Activities**
Location: Webex Group

- How did Discovery go?
- Surprises?

Time: 9:15 am - 10:00 am
Team Presentations: **Activities**
Location: Webex Group

8 minutes each (1 team each from therapeutics, diagnostics, devices)
Presentation For today's Oct 14th class

- Slide 1: Title slide
- Slide 2: What did you learn were your *critical* Activities?
 - Freedom to operate/IP?
 - Clinical Trials?
 - Quality data?
 - Regulatory approval?
- Slide 3: What did you learn about your activities?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 4: What experiments did you run to validate that these are activities?
- Slide 5: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 6: Rough diagram of activities and resources/partners needed to accomplish them
- Slide 7: Iterate: So Here's What We Are Going To Do Next Week

Time: 10:00 am – 11:30am
Cohort Team Presentations: **Activities** – break into therapeutics, diagnostics and device groups
Location: Webex cohort

- Presentation format as above

Time: 11:30 – 12:30 pm
Cohort Lecture: **Resources** specific to therapeutics, diagnostics and device groups
Location: Webex Cohort

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Homework for next weeks Oct 21st class- Resources

Reading

- *SOM* pp. 169-175 resources, pp. 267-269
- Device teams Read: *Biodesign*: sections 4.5 Concept Exploration & Testing, 5.2 R&D Strategy, 5.3 Clinical Strategy, 6.3 Funding Approaches

Viewing

- Watch: [online lessons](#) 7 – Partners

Out of the Building

- Talk to at least 10-15 potential customers
-

Prep Presentation for next weeks Oct 21st class Resources

Talk to at least 10-15 potential customers

- Slide 1: Title slide
- Slide 2: What are your *critical* Resources?
 - Resources should match your critical Activities
 - Are they resources you already have?
 - Do you need to acquire or partner with others to get them?
 - How much will they cost?
 - What human resources will you need?
 - What equipment resources will you need?
 - What financial resources will you need to acquire all these resources?
- Slide 3: What did you learn about your resources?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 3: What experiments did you run to validate that these resources can be acquired?
- Slide 4: business model canvas with any changes marked in red, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 5: Rough diagram of activities and resources/partners needed to accomplish them
- Slide 6: Iterate: So Here's What We Are Going To Do Next Week

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Class 5 Oct 21st

Resources

Time: 9:00 - 9:15 am
Discussion: Class Q&A about **Resources**
Location: Webex Group

- How did Discovery go?
- Surprises?

Time: 9:15 am - 10:00 am
Team Presentations: **Resources**
Location: Webex Group

8 minutes each (1 team each from therapeutics, diagnostics, devices)
Presentation For today's Oct 21st class

- Slide 1: Title slide
- Slide 2: What are your *critical* Resources?
 - **Resources should match your critical Activities**
 - Are they resources you already have?
 - Do you need to acquire or partner with others to get them?
 - How much will they cost?
 - What human resources will you need?
 - What equipment resources will you need?
 - What financial resources will you need to acquire all these resources?
- Slide 3: What did you learn about your resources?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 3: What experiments did you run to validate that these resources can be acquired?
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 5: Rough diagram of activities and resources/partners needed to accomplish them
- Slide 6: Iterate: So Here's What We Are Going To Do Next Week

Time: 10:00 am – 11:30
Cohort Team Presentations: **Resources** – break into therapeutics, diagnostics and device groups
Location: Webex Cohort

- Presentation format as above

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Time: 11:30 – 12:30pm

Cohort Lecture: **Partners** specific to therapeutics, diagnostics and device groups

Location: Webex Cohort

Homework for next weeks Oct 28th class: **Partners**

Reading

- BMG 109-113 open business models
- *SOM* pp. 176-179 partners, pp. 484 partners checklist. pp. 484 partners checklist.
- Device teams Read: *Biodesign*: section 6.4 [Alternate Pathways](#)

Viewing

- *Watch*: online lesson 4 – **Channels**

Out of the Building

- **Talk to at least 10-15 potential customers**
-

Prep Presentation for next weeks Oct 28th class **Partners**

Talk to at least 10-15 potential customers

- Slide 1: Title slide
- Slide 2: What were your hypotheses about what partners will you need?
 - **Partners should match your critical Resources and Activities**
 - Why do you need these partners and what are risks?
 - Why will they partner with you?
 - What's the cost of the partnership?
 - **Diagram** the partner relationships with any dollar flows
 - What are the incentives and impediments for the partners?
- Slide 3: What did you learn about your Partners?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 5: Final **diagram** of activities and resources/partners needed to accomplish them

Slide 6: Iterate: So Here's What We Are Going To Do Next

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Class 6 Oct 28th

Partners

Time: 9:00 - 9:15 am

Discussion: Class Q&A about **Revenue Models**

Location: Webex Group

- How did Discovery go?
- Surprises?

Time: 9:15 am - 10:00 am

Team Presentations: **Partners**

Location: Webex Group

8 minutes each (1 team each from therapeutics, diagnostics, devices)

Presentation For today's Oct 28th class

- Slide 1: Title slide
- Slide 2: What were your hypotheses about what partners will you need?
 - **Partners should match your critical Resources and Activities**
 - Why do you need these partners and what are risks?
 - Why will they partner with you?
 - What's the cost of the partnership?
 - **Diagram** the partner relationships with any dollar flows
 - What are the incentives and impediments for the partners?
- Slide 3: What did you learn about your Partners?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 5: Final **diagram** of activities and resources/partners needed to accomplish them

Slide 6: Iterate: So Here's What We Are Going To Do Next

Time: 10:00 am – 11:30am

Cohort Team Presentations: **Partners** – break into therapeutics, diagnostics and device groups

Location: Webex Cohort

- Presentation format as above

Time: 11:30 – 12:30pm

Cohort Lecture: **Channels** specific to therapeutics, diagnostics and device groups

Location: Webex Cohort

Appendix D: Sample Life Sciences Syllabus

Homework for next weeks Nov 4th Class 7 - Channels

Reading for

- Read *BMG*: pp.
- Read *SOM*: pp. 98 – 105 Channels, 242-244 meet the channel, 332-337 Channel Roadmap, 406-411-Distribution Channels, pp. 478 channels checklist
- See Mark Leslie *Value Chain* slides at <http://www.slideshare.net/markleslie01/070801-value-chain-and-sales-model>
- Review Startup Tools: <http://steveblank.com/tools-and-blogs-for-entrepreneurs/>
- Device teams Read: *Biodesign*: section 5.8 Sales & Distribution Strategy

Viewing

- *Watch*: online lesson 5– Customer Relationships

Out of the Building

- Talk to at least 10-15 potential customers
-

Prep Presentation for next weeks Nov 4th Class: Channels

Talk to at least 10 potential customers to generate findings about value proposition

- Slide 1: Title slide
- Slide 2: Channels:
 - What is the distribution channel? Are there alternatives?
 - What was it that made channel partners interested? excited?
 - Draw the channel diagram - Annotate it with the channel economics
- Slide 3: What did you learn about your Channel?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
 - So Here's What We Are Going To Do Next
- Slide 4: business model canvas with any changes marked in red, Multi-sided markets shown in different colors
- Slide 5: Draw the channel diagram - Annotate it with the channel economics
- Slide 6: So Here's What We Are Going To Do Next Week
- Device startups start prototype, demo, or model
- Drug startups outline operational plan of the pre-clinical and clinical data that drive value

Appendix D: Sample Life Sciences Syllabus

Class 7 Nov 4th

Channels

Time: 9:00 - 9:15 am

Discussion: Class Q&A about **Distribution Channels**

Location: Webex

- How did Discovery go?
- Surprises?

Time: 9:15 am - 10:00 am

Team Presentations: **Channels**

Location: Webex Group

8 minutes each (1 team each from therapeutics, diagnostics, devices)

Presentation For today's Oct 14th class

- Slide 1: Title Slide
- Slide 2: Channels:
 - What is the distribution channel? Are there alternatives?
 - What was it that made channel partners interested? excited?
 - Draw the channel diagram - Annotate it with the channel economics
- Slide 3: What did you learn about your Channel?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
 - So Here's What We Are Going To Do Next
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors
- Slide 5: Draw the channel diagram - Annotate it with the channel economics
- Slide 6: So Here's What We Are Going To Do Next Week
- **Device startups start prototype, demo, or model**
- **Drug startups outline operational plan of the pre-clinical and clinical data that drive value**

Time: 10:00 am – 11:30am

Cohort Team Presentations: **Channels** – break into therapeutics, diagnostics and device groups

Location: Webex

- Presentation format as above

Time: 11:30am – 12:30pm

Appendix D: Sample Life Sciences Syllabus

Cohort Lecture: Customer Relationships specific to therapeutics, diagnostics and device groups

Location: Webex

Homework for Nov 11th Class 8 - Customer Relationships

Reading

- BMG pp. 146-159 Visual Thinking
- SOM pp. 126-143 customer relationships hypotheses, pp. 296-303 Get/Keep/Grow, pp. 480-482 Relationships checklist, pp. 489 Test the Problem and its importance
- Device teams Read: *Biodesign*: section 5.7 Marketing & Stakeholder Strategy

Viewing

- Watch: online lesson 6 – Revenue Models

Out of the Building

- Talk to at least 10-15 potential customers

Prep Presentation for next weeks Nov 11th class Customer Relationships

Talk to at least 10-15 potential customers

- Slide 1: Title slide
- Slide 2: What were your objective pass/fail metrics for each "Get" test/methodology
 - What is your customer acquisition cost?
 - How will you create demand?
 - Who are the Key Opinion Leaders (KOL's).
 - Who will be on your Scientific Advisory Board (SAB)
 - What conferences do you need to present at?
 - What journals do you need to be in?
 - If any, who are the Bus Dev people you need to target?
 - Build demand creation budget and forecast.
- Slide 3: What did you learn about your Customer Relationships (Get/Keep/Grow)?
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
 - So Here's What We Are Going To Do Next
- Slide 4: business model canvas with any changes marked in red, Multi-sided markets shown in different colors
- Slide 5: Draw the Get/Keep/Grow diagram - Annotate it with the key metrics
- Slide 6: So Here's What We Are Going To Do Next Week
- Post discovery narratives on Launchpad Central
- Device startups start prototype, demo, or model
- Drug startups update Target Product Profile and update list of top pharma/biotech prospects with strategic need for your product

Appendix D: Sample Life Sciences Syllabus

Class 8 Nov 11th **Customer Relationships**

Time: 9:00 - 9:15 am

Discussion: Class Q&A about **Customer Relationships**

Location: Webex

- How did Discovery go?
- Surprises?

Time: 9:15 am - 10:00 am

Team Presentations: **Customer Relationships**

Location: Webex

8 minutes each (1 team each from therapeutics, diagnostics, devices)

Presentation For today's Nov 11th class

- Slide 1: Title slide
- Slide 2: What were your objective pass/fail metrics for each "Get" test/methodology
 - What is your customer acquisition cost?
 - How will you create demand?
 - Who are the Key Opinion Leaders (KOL's).
 - Who will be on your Scientific Advisory Board (SAB)
 - What conferences do you need to present at?
 - What journals do you need to be in?
 - If any, who are the Bus Dev people you need to target?
 - Build demand creation budget and forecast.
- Slide 3: What did you learn about your Customer Relationships (Get/Keep/Grow)?
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
 - So Here's What We Are Going To Do Next
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors
- Slide 5: Draw the Get/Keep/Grow diagram - Annotate it with the key metrics
- Slide 6: So Here's What We Are Going To Do Next Week
- **For Physical products show Demo prototype, or model**
- **Device startups show prototype, demo, or model**
- **Drug startups update Target Product Profile and update list of top pharma/biotech prospects with strategic need for your product**

Time: 10:00 am – 11:30am

Cohort Team Presentations: **Customer Relationships** – break into therapeutics, diagnostics and device groups

Location: Webex

- Presentation format as above

Appendix D: Sample Life Sciences Syllabus

Time: 11:30am – 12:30pm

Cohort Lecture: Revenue Models and Costs specific to therapeutics, diagnostics and device groups

Location: Webex

Homework for Nov 18th Revenue and Costs

Reading

- *SOM* pp. 180-188 revenue and pricing hypotheses, pp. 260-269 verify business model, pp. 438 metrics that matter, pp. 437-456 Pivot or Proceed?, pp. 457-459 financial model, Pp. 526-527 assemble data, pp. 528 Validate Financial Model
- Device teams Read: *Biodesign*: sections 4.4 Business Models, 5.6 Reimbursement Strategy, 6.1 Operating Plan & Financial Model

Viewing

- *Watch*: online lesson - [Storytelling](#)

Out of the Building

- Talk to at least 10-15 potential customers

Prep Presentation for next weeks Nov 18th class Revenue Model and Costs

Talk to at least 10-15 potential customers

- Slide 1: Title slide
- Slide 2: What did you learn about your Revenue Model & Pricing?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 3: What experiments do you run to test your Revenue Model and Pricing?
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 5: **Diagram** of Payment flows
- Slide 5: Rough three-year income statement to show you have a real business with your revenue model, channel, acquisition costs, etc.
- Slide 6: **Diagram** the **finance and operations timeline**
- Slide 7: Iterate: So Here's What We Are Going To Do Next Week
- **Post discovery narratives on Launchpad Central**

Appendix D: Sample Life Sciences Syllabus

Class 9 Nov 18th **Revenue Model and Costs**

Time: 9:00 - 9:15 am

Discussion: Class Q&A about **Revenue Model and Costs**

Location: Webex

- How did Discovery go?
- Surprises?

Time: 9:15 am - 10:00 am

Team Presentations: **Revenue Model and Costs**

Location: Webex

8 minutes each (1 team each from therapeutics, diagnostics, devices)

Presentation For today's Nov 28th class

- Slide 1: Title slide
- Slide 1: Title slide
- Slide 2: What did you learn about your Revenue Model & Pricing?
 - Hypothesis: Here's What We Thought
 - Experiments: So Here's What We Did
 - Results: So Here's What We Found
- Slide 3: What experiments do you run to test your Revenue Model and Pricing?
- Slide 4: business model canvas with any changes **marked in red**, Multi-sided markets shown in different colors (Is this a multi-sided market?)
- Slide 5: **Diagram** of Payment flows
- Slide 5: Rough three-year income statement to show you have a real business with your revenue model, channel, acquisition costs, etc.
- Slide 6: **Diagram** the **finance and operations timeline**
- Slide 7: Iterate: So Here's What We Are Going To Do Next Week

Time: 10:00 am – 11:30am

Cohort Team Presentations: **Revenue Model/Costs** – in therapeutics, diagnostics and device groups

Location: Cohort Webex

- Presentation format as above

Time: 11:30am - noon

Team Lecture/Discussion: **Getting ready for the Lessons Learned Presentation** – one groups

Location: Group WebEx

Appendix D: Sample Life Sciences Syllabus

Viewing for Dec 9th Watch previous I-Corps teams final presentations
See <http://www.slideshare.net/sblank/> for examples

Assignment Keep talking to 10-15 customers a week

- Final 10-minute presentation and a 2-minute video

NO CLASS NOV 25TH

Appendix D: Sample Life Sciences Syllabus

Class 10 Dec 9th **Lessons Learned Workshop/ Preparing for SBIR Phase 2**

Time: 9:00 -12:00 pm
Lessons Learned Workshop – How to Tell a Story (part 1)
Owner: TBD
Location: Microsoft Building 5th Floor

Time: 12:00 – 1:00 pm
Preparing for Phase 2 and other funding opportunities
Owner: Michael Weingarten/Andrew Kurtz

Time: 1:00 -5:00 pm
Lessons Learned Workshop – How to Tell a Story (part 2)
Owner: TBD
Location: Microsoft Building 5th Floor

This workshop session is mandatory.

Review: <http://www.slideshare.net/sblank/lessonslearned-day-presentation-skills-training>

This session will help prepare you, not only for your team's final presentation in this class, but with life skills that will hopefully benefit you in multiple venues, for many years. Come prepared to learn about:

Storytelling

- The World – market/opportunity, how does it operate
- The Characters – customers/value proposition/ product-market fit, pick a few examples to illustrate
- Narrative Arc – lessons learned how? Enthusiasm, despair, learning then insight
- Show us – images and demo to illustrate **learning** = wireframes & pivots to finished product)
- Editing – does each slide advance the character and plot (learning)

Theater

- Point me at what you want me to see
- Ought to be self-explanatory
- Use analogies
- Tell a story that others can repeat
- Use common, audience appropriate language
- Understand the context (mainly, the audience) in which the story is being told by you

Appendix D: Sample Life Sciences Syllabus
Class 11 Dec 10th **Team Presentations of Lessons Learned**

Deliverable: Teams will present an 8-minute "Lessons Learned" presentation about what they learned plus a 2-minute YouTube video summarizing their business.

"Lessons Learned" Day Presentation Format

Deliverable: Each team will present an 8-minute "Lessons Learned" presentation (8 minute presentation) about their business, plus a 2-minute video summarizing their journey.

Slide 1 – Team Name, with a few lines of what your initial idea was and the size of the opportunity

Slide 2 – Team members – name, background, expertise and your role on the team

Storytelling

- The World – market/opportunity, how does it operate
- The Characters – customers/value proposition/ product-market fit, pick a few examples to illustrate
- Narrative Arc – lessons learned how? Enthusiasm, despair, learning then insight
- Show us – images and demo to illustrate **learning** = wireframes & pivots to finished product)
- Editing – does each slide advance the character and plot (learning)

Theater

- Point me at what you want me to see
- Ought to be self-explanatory
- Use analogies

Slide 3 - Business Model Canvas **Version 1** (use the Osterwalder Canvas do not make up your own). "Here was our original idea."

Slide 4 – "So here's what we did..." (explain how you got out of the building)

Slide 5 – "So here's what we found (what was reality), so then..."

Etc.... Every presentation **requires at least three Business Model Canvas slides.**

Side n – "So here's where we ended up." Talk about:

Appendix D: Sample Life Sciences Syllabus

1. what did you learn
2. whether you think this a viable business,
3. whether you want to pursue it after the class, etc.

Final Slides – Click through *each one of your business model canvas slides*.

Final presentation tips:

- You cannot possibly cover everything you learned in 10 weeks a 10-minute presentation. Don't try to. The final presentation is partly an exercise in distilling the most critical, surprising, and impactful things you learned in the process.
- Don't fall into the trap of making your final presentation too high-level. If it becomes an overview with no details you will lose the audience and you will look no smarter than day 1. We need to see WHY your business model canvas evolved the way it did. Include anecdotes about **specific customer interviews that support the story you are telling**.
- If you have a demo, prototype, screenshots, etc. include it in your presentation as a supporting character to illustrate your learning and where it has gotten you (it is called "Lessons Learned Day" and not "Demo Day" for a reason). We are not just interested in WHAT your product is, but WHY your product is – what did you learn from customers that shaped the product?

Description of mandatory 2-minute video:

Create a 2-minute video *to be shown at the beginning* of your final presentation. The video should summarize the customer discovery journey your team went on, highlighting the key customer insights that took you from your initial idea to today. Storytelling quality is critical. High production value is not (some of the best videos have been very straightforward). Also, make it personal - include the team in the video as well as key "aha" moments. This video is about the discovery process. It is NOT a marketing video for your product.

See sample videos here: [Bionicks Video](#), [Gutwiser Final Video](#), [Dentometrix Video](#)

Appendix D: Sample Life Sciences Syllabus

Lean LaunchPad for Life Sciences Frequently Asked Questions (FAQ)

Students

1. I-Corps is **only** open to **NIH** I-Corps students.
2. We encourage the teams to recruit any and all resources to their teams. Non-students can serve as extra members of the teams.
3. Each team must have 3 I-Corps students.

Your Slides Will Be Public

4. Your weekly and final slide decks should not contain any proprietary information.
5. They should focus on your business model and customer discovery
6. You will learn from looking at past classes and those to come will learn from yours.

Attendance and Participation

- *You cannot miss the first three classes in Bethesda or the final presentations at Bethesda*
- If you anticipate missing more than one remote lecture, we recommend that you wait to apply to the I-Corps when you can commit the time.
- Getting out of the building is what the class is about. It's not about the lectures. If you can't commit the time to talk to customers, don't take the class

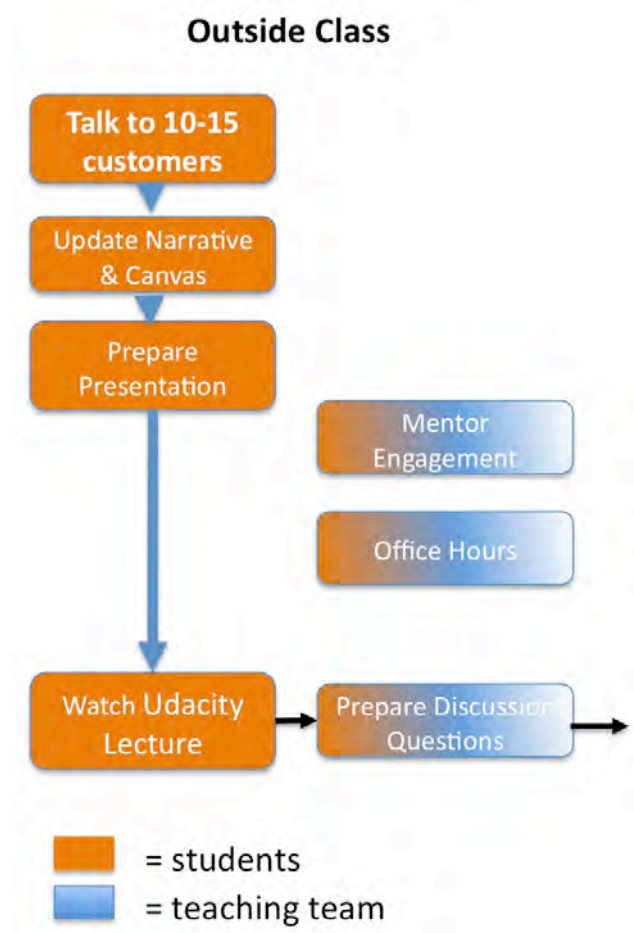
Appendix E: Class Roadmap 9-32 Teams

Appendix E: Class Roadmap: 9 - 32 Teams

The diagrams below show how we organize a large class of 9-32 teams. The student teams perform the same activities as those described in the previous section, outside the classroom.

We first meet as a group for a general recap of the past week's Customer Discovery activities. Then we split the teams into domain-specific cohorts. For example, when we teach the class for Life Sciences, the teams split into Therapeutics, Diagnostics, Devices, and Digital Health groups—each led by an expert instructor in that domain.

Students have weekly activities inside and outside the classroom.

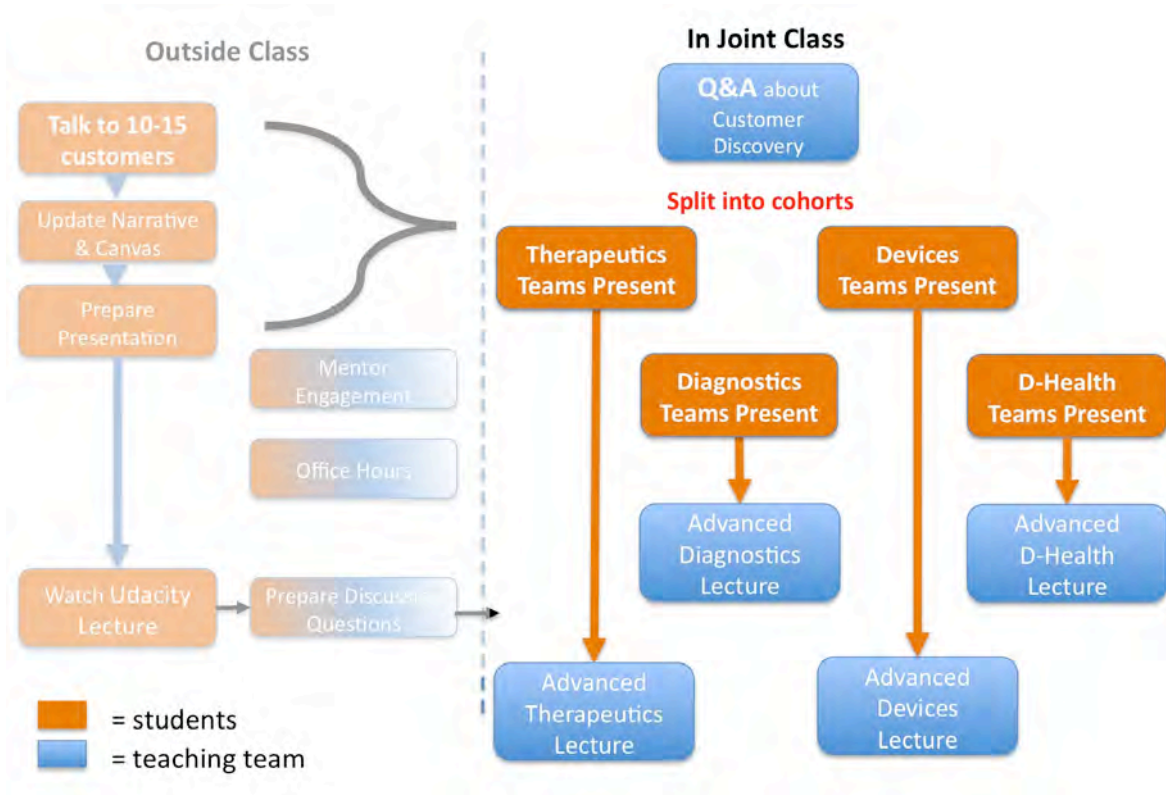


Outside the classroom, teams test their business model hypotheses by:

9 – 32 Teams

Appendix E: Class Roadmap 9-32 Teams

- Talking to 10-15 customers in person or via video Skype.
- Capturing their Customer Discovery progress by using the LaunchPad Central Software and updating their Business Model Canvas.
- Taking what they learned and assembling a 10-minute Lessons Learned presentation.
- Engaging with their mentors.
- Attending mandatory office hours.
- Watching the Course video lecture for the week and preparing questions for discussion.



In the classroom:

- All cohorts meet as a group and engage in Q&A about what happened during the past week's Customer Discovery.
- Teams then split into cohorts for therapeutics, diagnostics, devices and D-health.
- Teams present and receive instructor critiques in their cohort.
- Cohort instructors offer advanced lectures with domain-specific advice on one of the 9 business model building blocks to help prepare students for next week's Discovery

Appendix F: Sample Mentor Handbook

Appendix F: Mentor Handbook: Sample

This is an example of a mentor handbook we use at Stanford. Modify it for your own use.



E245 The Lean LaunchPad

Mentor and Advisor Handbook

<http://stanford.edu/group/e245/cgi-bin/2012/>

Classes meet 4:15 -7:05 pm

Yang and Yamazaki Environment and Energy (Y2E2) building - Room 111

Professors:

Steve Blank

sblank@kandsranch.com

Jon Feiber

jdf@mdv.com

Ann Miura-Ko

ann@floodgate.com

Teaching Assistants:

Thomas Haymore

thomas.haymore@gmail.com

Appendix F: Sample Mentor Handbook

Welcome as a team *mentor or advisor* in the Engr245 *Lean Launchpad* course in Stanford School of engineering.

Mentors play an active role in weekly coaching of a specific team.
Advisors are on-call resources for the entire class.

The Role of Mentors

As a mentor, you are *an extension of the teaching team* responsible for the success or failure of one team with four students. In ten very short weeks, your team has to 1) get outside the classroom and test all their business model hypotheses and 2) if it's a Web-based business, get it up and running, and if it's a physical product, build a prototype.

Here's what you are signing up for:

Lean LaunchPad Mentor Cheat Sheet

1. What's my role?

Strategic Guidance

- Offer business model suggestions
- Identify and correct gaps in your team's business knowledge

Tactical Guidance

- Rolodex help - "why don't you call x? Let me connect you."
- Push your team to make 10 - 15 customer contacts each week

3. What are my other commitments as a mentor?

- Attend a 1-hour mentor training session or watch the recording of the session if you cannot make it in person
- Watch Udacity lectures and stay 1 week ahead of the class
- Check in with teaching team at class 3 and 7 to discuss student progress
- Attend weekly 30-minute mentor call with your cohort instructor and other mentors
- Attend your team's final presentation on Dec 10
- Invited, but not required, to attend weekly lectures and student presentations Tuesdays 5:30-9pm

2. How do I interact with my team?

- Review your team's *weekly* presentation *before they present on Tuesdays*
 - **Best Practice:** Schedule a weekly meeting (in person or Skype) for Mondays to review their presentation in real time
- Comment *weekly* on your team's Customer Discovery progress via LaunchPad Central
 - **Best Practice:** Log into LPC everyday for a to read and comment on a few interviews
- Respond to the teaching team's critique of your team
 - **Best Practice:** Schedule a weekly meeting (in person or Skype) for Wednesdays to hear how your team's presentation went and help them regroup for the next week
- Meet face-to-face with your team at least twice during the class; Skype/Google Hangout etc. and conference calls are OK for other weekly meetings

Offering your team *strategic* guidance and wisdom:

- Offer business model suggestions.
- Identify and correct gaps in the team's business knowledge.

Providing your team with *tactical* guidance every week:

- Reviewing your team's *weekly* presentation *before they present*.
- Commenting *weekly* on your team's Customer Discovery progress blog.
- Responding to the teaching teams' critique of your team.
- Rolodex help—"why don't you call x? Let me connect you."
- Pushing the teams to make 5 to 10 customer contacts/week.
- Meeting one-on-one with your teams at least twice during the class.
- Checking in with the teaching team at classes 3 and 7 to discuss student progress.

Appendix F: Sample Mentor Handbook

If you can't commit to the time to be a mentor, consider being an advisor.

The Role of Advisors

As an advisor, you are a class resource for your particular domain expertise.

Here's what you are signing up for:

- Response to student emails/phone calls within 24 hours.
- Skype calls with one/two teams a week, as needed.

Invitations to both Mentors/Advisors

- You are welcome to attend any and all lectures.
- You're invited to speak at a class for **10 minutes** on a subject of general interest.

Appendix F: Sample Mentor Handbook

Course Goal: Lean Startups

Provide an experiential learning opportunity to see how entrepreneurs really build companies. In ten weeks, teach a four-person team how to transform a technology idea into a venture-scale business opportunity. Do it by having them get outside the classroom and test each element of their business model.

The goal is *not a business plan, revenue plan, or 5 year forecast*.

This is the class that the National Science Foundation has standardized to teach 100 of their best scientists and engineers. See:

<http://steveblank.com/2011/07/28/eureka-a-new-era-for-scientists-and-engineers/>.

Mentors and Getting Out of the Building

The class is about teaching the students that the nine building blocks of a business model are simply hypotheses until they actually validate them with customers and partners, and since there are “no facts inside the building, they need to get outside.” This means as part of this class they need to talk to customers, channel partners, and domain experts and gather real-world data for each part of their plan.

This can be a daunting and formidable task. To the best of your ability, help them network, teach them how to send email and make phone calls and run customer surveys. Open your Rolodex to whatever level you feel comfortable with.

Your role is to help the *teams learn how to test their hypotheses about their business model*.

Questions that are helpful are, “Have you considered x?” “Why don’t you look at company z and see what their business model is and compare it to yours,” or “Here are some names of domain experts in the field, you should talk to them.” Try to avoid specifically telling them what to do.

Remember: The class is not trying to be Y Combinator. We are trying to give students models, heuristics, and experience they can apply when they leave. The class is about what they learned on the *journey*.

Mentors and Web-based Startups

If your team is building a Web-based business, they need to get the site up and running during the semester. The goal is not a finished or polished site, but a vehicle so they can test their assumptions about *Minimum Feature Set, demand creation, virality, stickiness, etc.*

Students

Admission to the class is by interviews of pre-formed teams of graduate students. We’ll take 10-12 teams. The students are typically working on their Master’s or PhDs in engineering or science; however, the class is also open to MBA students.

The teams will self-organize and establish individual roles on their own. There are no formal CEO/VPs. Just the constant parsing and allocating of the tasks that need to be done.

Deliverables

Steve Blank

7th edition Nov 2015



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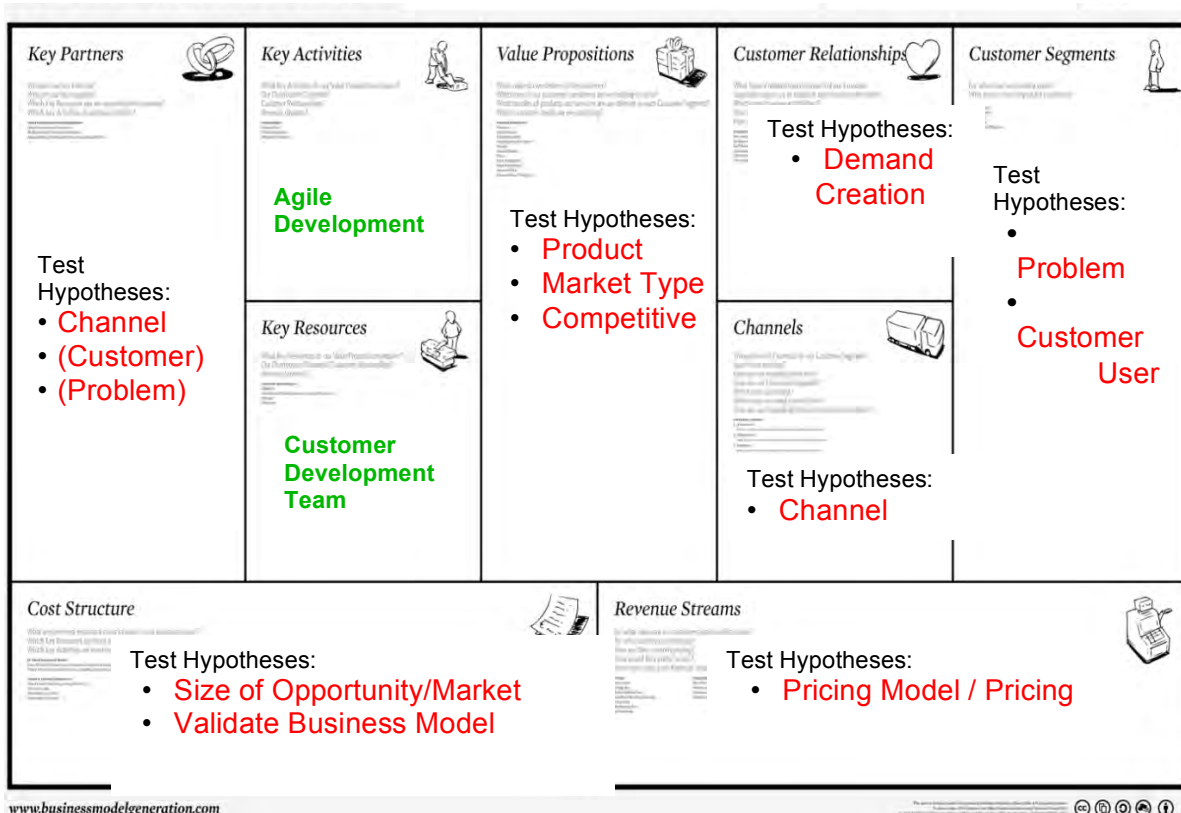
Appendix F: Sample Mentor Handbook

Teams that select a Web-based product will have to *build the website for the class*. Teams that select a physical product must have a *bill of materials and a prototype*.

The teams will be blogging their progress between classes. It is an integral part of their deliverables. It's how we measure their progress (along with in-class PowerPoint presentations.) Each time they post they *must notify you*. Please look at their posts between classes and give them feedback.

Lean Launchpad Course Organization

The course is organized around Alexander Osterwalder's Business Model Canvas and Steve Blank's



Customer Development process. (See the syllabus for details.)

Each week's class is organized around:

- A lecture on one of the nine building blocks of a business model.
- Student teams presenting their "lessons learned" from getting out of the building and iterating or pivoting their business model.

The Eight (3-hour) Class Sessions

Session 1: Course Introduction, Business Models, Customer Development

Session 2: Value Proposition

Session 3: Customer Segment

Session 4: Channels

Session 5: Demand Creation

Session 6: Revenue Model

Appendix F: Sample Mentor Handbook

Session 7: Partners

Session 8: Resources and Costs

Sessions 9 & 10: Lessons Learned Presentations

Schedule

Classes meet at 4:15 -7:05pm

Yang and Yamazaki Environment and Energy (Y2E2) building - Room 11.

Office hours are held before class.

Textbooks

Alexander Osterwalder and Yves Pigneur, *Business Model Generation*:

<http://www.businessmodelgeneration.com/order.php>

Steven Blank, *Four Steps to the Epiphany*: <http://www.stevenblank.com/books.html>

Getting Prepared

The best way for you to get a feel of the course is to:

1. Read the blogs about the previous class.

See: <http://steveblank.com/category/lean-launchpad/>

Begin with this one:

<http://steveblank.com/2010/12/07/the-lean-launchpad---teaching-entrepreneurship-as-a-management-science/>

and this one:

<http://steveblank.com/2011/05/10/the-lean-launchpad-at-stanford---the-final-presentations/>

2. Download and breeze through the explanation of Osterwalder and Pigneur's Business Model Canvas:

http://www.businessmodelgeneration.com/downloads/businessmodelgeneration_preview.pdf

3. Look at the students' weekly and final presentations:

<http://www.slideshare.net/sblank/tag/stanford>

and the National Science Foundation presentations:

<http://www.slideshare.net/sblank/tag/i-corps>

4. Read the class syllabus:

<http://www.slideshare.net/sblank/e245-syllabus-rev15>

and class website: <http://stanford.edu/group/e245/cgi-bin/2012/>

Thanks once again for your support and participation,
Steve, Jon and Ann

Steve Blank

7th edition Nov 2015



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Student Peer-Grading Document

LaunchPad Central
eLab - Summer 2013 | Proceedings | Leaderboard | Teams + | | | |

Team Presentations

Create New Presentations

Export All Inputs

Date	Team	Score
06/07/2013	COMET	7
07/31/2013	Ecliptic Industries	7
07/24/2013	FireStop	7
07/17/2013	ftSense	7
07/10/2013	Freestyle Montessori	7
07/03/2013	greenROOTS	7
06/26/2013	Kibongle	7
06/19/2013	PHOG	7
06/12/2013	PhotoRink	7
06/05/2013	Princeton Beverage Company	7

Ecliptic Industries Presentation 06/25/2013

[Click here to view team presentation](#)

Peer Comments | Instructor-only Comments

Average Team Presentation Scores

Date	Score
2013-06-13	6.8
2013-06-15	6.5
2013-06-19	6.8
2013-06-25	6.8
2013-07-03	6.4
2013-07-10	6.7
2013-07-17	6.8
2013-07-24	7.0
2013-07-31	7.0
2013-08-07	7.0

06/25/2013 7

To what extent is the software tied to the hardware...? Could you license it separately?

06/25/2013 7

Very good visuals in the presentation, I think everyone now has a clear picture of what you guys are doing.

06/25/2013 7

Your project is pretty technical, so the flow charts were perfect for breaking down what you're going to work on. Is your software advancing significantly, or are you guys having trouble getting past the pesky problems, like tolerances?

06/25/2013 7

Have you partnered with software manufacturers to add the software as an add-on to the main cad program.

06/25/2013 7

06/26/2013

Nice customer workflow diagram. Even has pictures! Definitely helps your audience better understand the process your getting involved with and how you will contribute.

As we start developing MVP's, how far along is your software? Is that something you hope to have minimally functional this summer? Will you be able to demonstrate how well your software can break apart larger blueprints and how much strength these individual pieces provide when you combine them to form the final product?

Also - be careful when you start talking to 3D printer companies and other potential partners. All the teams are under a lot of pressure to get out and talk to so many people every week. But we were given valuable advice this week to also be mindful of who NOT to talk to. Don't want to give a big, wealthy company an idea they can run away with and beat you to. Might be better to initially avoid some of the possible long-term partners (3D printer companies, CAD software vendors, etc.)

06/26/2013 7

Your presentation had some really great diagrams. I think the previous commenters had some great questions for you to focus on.

06/26/2013 7

Your hardware MVP isn't really a hardware MVP - that's just testing and it's part of development, not part of the product. I think that was the source of the confusion.

How do you put together the finished parts? Manually? Assembly lines? Varies by customer?

06/26/2013 5

Although you have a pretty technical focus, I think getting your value props and mission into a few concise, non-technical sentences will help both with later investors, with the teaching team, and simply helping you define it for yourself.

06/26/2013 7

I see that you have the durability of patterns is one of the customer pains. Isn't that one of the problems you have to overcome with the 3D printing hardware? Or is that a problem with wood molds or molds made on a CNC machine? Is there an existing epoxy for the 3D printers that would solve this problem or do you have to develop one?

In terms of precision, is that basically a function of the cost of the 3D printer? I remember seeing some Kickstarter about a low-cost printer that was as accurate as much more expensive machines. Possible partner? Maybe you could bundle the software/hardware for the foundries that want to make their molds in house... in order to make sure the printers are accurate enough.

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Appendix G: LaunchPad Central

Startup Wisdom Document

Home - Google Docs NSF I-Corps March 2012 -te

https://docs.google.com/a/umich.edu/spreadsheet/ccc?key=0AkLec3YXopVdFdINU5ZU2NCUlpSak9iSjImQk1MakE#gid=0

Documents Sites Groups Contacts More » aileenhs@umich.edu

NSF I-Corps March 2012 -teaching team comments during team presentations

File Edit View Insert Format Data Tools Form (0) Help All changes saved

KEY LEARNING POINTS

	A	B	C	D	E	F	G	H	I	J	K	L
	KEY LEARNING POINTS	WHO SAID IT?	CONTEXT	Value Prop	Cust Seg/Mkt Type	Channels	Demand Creation	Partners	Activities	Resources	Revenue Models	Cost Structure
3	Entrepreneurship game played at several levels. Lesson#1"bring a gun to a knife fight". Lesson#2 nail the "positioning"	Steve Blank	CanScan pitch - week 3	X								
4	Learning what not to do is equally as important as learning what to do at #startups	Steve Blank							X	X		
5	In new mkts. u want 2 be fast follower. Hypothesis of 1st mover advantage has been disproven over the last decade.	Steve Blank	Sawvy Bears - Week 3		X							
6	Data or infographic may look pretty. but is the underlying data valid? #marketing slides not good enough for #startups	Steve Blank		X								
7	Always ask "this was very helpful, who else can we speak with from your network"? Need to get 3 new names from meetings	Jim Hornthal	CanScan pitch - week 4	X				X				
8	Understand in depth what someone said, before ignoring an expert/mentor recommendation. Startups get multiple advice from multiple people. you just don't know which one to ignore. You need to process advice from everybody and not blow it away. "Here's what I heard you say, did I understand it right?" "Let me tell you why I will or won't follow it"	Steve Blank	CanScan pitch - week 4	X								
9	People are betting on you, not your advisors. BoD tells you to do X, you want to do Y. You can never execute someone else's vision as a founder. Never adopt someone else's vision.	Steve Blank	CanScan pitch - week 4	X								
10	"You made a product manager list of features instead of customer discovery". Don't show us a competitive features list in week 4. Admins in Silicon Valley can do this. You don't need entrepreneurs for a faith based features list	Steve Blank	Blizini pitch - week 4 showing a faith based list	X								
11	Don't get out of business the first day you enter the market.	Steve Blank	Sawvy Bears - week 4 pitch showing a chart of competitors all doing the same thing	X								

MVP # 3

KEY LEARNING POINTS