

# Entrepreneurship Laboratory (E-Lab)

## Example Syllabus

Draft Dated: October 15<sup>th</sup> 2016 (version 0.1)

E-Lab is a project-based course, in which teams of students work on projects for local (typically high-tech) start-up firms. E-Lab host companies already have people, outside funding and working technology (although sometimes not a specific application for it). Some have products and revenues; others do not. E-Lab's objectives include:

- Understanding what it is like to work in fast-paced entrepreneurial firms;
- Teaching skills needed in entrepreneurial ventures, especially the analysis of target markets, customer value propositions, product requirements and market entry;
- Learning how to define and quantify a customer value proposition that matches a venture's unique technical assets and capabilities to specific market needs;
- Providing an opportunity to apply academic knowhow in an entrepreneurial setting;
- Allowing you to learn quickly about an unfamiliar industry, technology, and market;
- Providing experience of managing a consulting project in the face of many unknowns, under real time constraints, while delivering real value to your host firm.

E-Lab firms represent a diverse range of industries and technologies, including Web2.0, Mobile, Software, Clean Tech, Healthcare and Medical Devices. We look for firms that are relatively small (<40 employees) to maximize potential impact. We focus on local ventures, to maximize the opportunity for face-to-face interactions. We recruit more host firms than teams, so students have a wide choice of possible projects.

Projects vary widely, but a typical project might involve investigating potential markets for a new technology, matching a technology/solution to particular customer needs, defining and quantifying the value proposition for target customers, and/or developing a market entry strategy. Projects are rigorously screened to fit course objectives.

E-Lab is a hands-on course, where students learn by doing. You should be prepared to spend a lot of time meeting and talking with your host firm, potential customers and industry/technology experts. We meet as a class only once a week for two hours. The remainder of your time should be spent on activities that will contribute to your project. In total, we expect students in E-Lab to devote about one day a week to the course.

In-class sessions will focus on teaching practical tools and skills required to complete your projects. The emphasis will be on identifying attractive target market(s), defining customer value propositions, specifying market/product requirements and developing go to market strategies. Class sessions will combine the use of cases, interactive lectures (from both faculty and outside guests), team exercises (in which you are asked to apply specific tools to your project) and team presentations.

## **Course Information**

Classroom: TBA.

Class Time: Tuesday 5:00 pm – 7:30 pm.  
Classes are held once a week for 2.5 hours. Typically, class will be divided into two sessions separated by a 20-minute break.

Faculty Lead: **Alan MacCormack**, Morgan Hall 443 ([amaccormack@hbs.edu](mailto:amaccormack@hbs.edu))  
Faculty Assistant: Ethi Al-Mahdi (617-384-7295)  
Office Hours: by appointment (contact Faculty Assistant)

Assisting Faculty: TBA.

Program Manager: **Susanna Lynch**, (617-496-8747; email = [elab@hbs.edu](mailto:elab@hbs.edu))  
Questions about course logistics and host firms/projects.

Website: External: [www.hbs.edu/mba/academic-experience/elab/](http://www.hbs.edu/mba/academic-experience/elab/)  
Course website: [canvas.hbs.edu](http://canvas.hbs.edu) (available Dec 2016).

Enrollment: Non-HBS graduate students are encouraged to take the course; diversity contributes to project success. We hope that each team will include at least one non-HBS graduate student, usually from Engineering or the Sciences. Cross-registrants should submit an application by Jan 15<sup>th</sup> 2016 via the external website (above).

Attendance: We only meet for a small number of sessions, so it is important that you attend every class. Attendance will be taken. Reasons for absence should be provided in advance via the registrar (HBS students) or email to the program manager (cross-registrants).

## **Role of the E-Lab Program Manager**

The E-Lab program manager is the main resource for communication with host firms. They can provide help if a team needs assistance contacting/working with the host.

If you wish to have conference calls with your host, you should use the Spangler project rooms. If you require other resources (e.g., space or technology) for interacting with host firms, please contact the E-lab program manager. Note we expect teams to spend a substantial amount of time meeting with and working with their host **on-site**.

The faculty will lead all class sessions, hold regular mentoring meetings with teams, and will assess student grades. Additional resources for coaching teams are also available to teams through the HBS Entrepreneurs in Residence program.

## COURSE DETAILS

### Before the First Class

The faculty has recruited a great a set of host firms and projects for this course. The industries represented have been chosen to mirror student interests. Host firms have been screened to ensure i) they are “real” opportunities (i.e., they have technology and funding); ii) they are small in size (hence an E-Lab team can have significant impact); and iii) they have a local presence (so the team can work with employees face-to-face). We recruit more host firms than student teams, so you have a choice of projects.

The final portfolio of projects is made available on the course website one week before the first class. **You must review all E-Lab projects before the first class.**

All students must also submit resumes describing their backgrounds one week before the first class. These will be made available to other students via the course website.

We encourage you to use the course website before the first class, to identify projects that match your interests and students you want to work with. To aid in this process, we ask you to rank your top project choices on the E-Lab website. Informal virtual networking with host firms and other students is encouraged. However, to ensure equal opportunities for all, you should not formally commit to working with a specific firm or team prior to the first class.

### First Class: Team Formation Process and Host Firm Projects

In the first class, we will introduce the course, begin the team formation process, and hear host firms describe their projects. Potential teams, team members, and representatives from host firms will have an opportunity to network thereafter. Students are encouraged to bring laptops to the first class for further online research.

Teams should consist of 4 members. Teams of 3 or 5 may be accepted only if this is the best way to meet student preferences. When forming a team, first consider whether you share the same passions in terms of target industries and projects. Then consider whether you have complementary skills and backgrounds. Historically, diverse teams perform better and students in them report learning more E-Lab.

Note that team formation is inherently a messy process. While we kick off this process in class, using information about your preferences and experiences, the onus is on you to network with other students, to find those with complementary skills and interests. Given more time, we might devote more classes to get to know each other before forming teams. But this would significantly reduce the amount of time for your project. In contrast, the focus in E-Lab is to maximize the time spent working with host firms. (Of course, you will still learn a lot in getting to know and working with your team).

## **After the First Class: Forming Teams and Ranking Projects**

We expect students to form teams before the second class. Prior to the second class, we will ask each team to identify its members, and rank its top three project choices. We will allocate teams to host firms based upon your preferences. While we attempt to give each team its top project choice, sometimes this is impossible. Hence your team must consider multiple projects, and be open and flexible. In the second class, we will devote time to launching your team and planning your project.

## **Working with Your Host Company**

Once you learn your host firm, you should call/email them to arrange your first meeting. The first task in working with your host is to agree details about the project objectives, scope, outputs, tasks, interim milestones and working arrangements. All E-Lab projects are pre-screened in terms of objectives and scope, but startups move quickly and priorities can shift. Hence it is important for you to revisit these topics. We ask you to submit a written and signed “project agreement” prior to the third class.

A critical topic for your first meeting with your host is access, both to senior managers, and to customers and prospects. Frequent high-level contact is a key element of successful E-Lab projects. Access to prospective or actual customers is also essential. You should address this issue up-front with your host, and agree expectations for how much access you will have. You should also ask whom to approach if expectations are not met, and you need help resolving the issue.

It is important that you front-load your project. The semester goes by very quickly and involves a lot of work. Furthermore, you will face challenging logistical issues associated with gaining access to managers, customers, prospects and experts. Not everyone you want to talk to will be willing to meet, nor immediately available. Your team’s ability to ramp-up and “get out of the building” quickly will be key.

At the end of term, you will present the results of your project first to faculty, and then to your host firm. In the faculty presentation, you will receive feedback on how to improve your presentation to increase the impact of your work. Your project grade will depend only on the faculty evaluation, and not on the views of your host firm. However, we encourage you to ask for feedback from your host throughout the term.

## **Professionalism and Ethics**

During your project, you are a representative of HBS. Your behavior will affect people’s opinions of you and of HBS. Please take care to behave in a way that supports and strengthens the HBS brand. Be competent, ethical, professional, and polite.

Ethics require special attention in start-ups and technology companies. First of all, you absolutely may not work on a company or project where you have any conflict of interest, such as connection to a competitor. Please do not take any chances about this requirement; if there is any question whatsoever, speak with the course faculty.

You have already agreed to maintain the confidentiality of host firm information on the course website. Host firms may also ask you to sign a non-disclosure agreement (NDA). This is normal, and we have developed a standard NDA for you to use. In most cases, firms have agreed to use this NDA. If they ask you to sign a different NDA, contact the E-Lab program manager, and provide them with a copy of the agreement for approval.

Whether or not you sign an NDA, ask your host firm to be explicit about the information you can share. In general, the more openly you can discuss what you are doing, the more insights you will generate, and the more useful your project will be. But recognize that firms must weigh transparency against protecting their proprietary information.

You may face ethical issues when you interview customers, competitors and others during your field research. Say that you are an HBS student working on a project with a startup. If an interview subject asks which firm, tell them. If they ask for more details, do not share confidential information. If the subject refuses, or requests inappropriate information in return for cooperation, politely decline. You'll find most people are happy to help if you are open with them, and make it clear why you value their opinions.

## Course Grading

Your grade will depend on both team and individual performance, as follows.

- 60%**      **Project Performance**
  - Adding significant value through rigorous and insightful analyses
  - Demonstrating this value through presentations in class/to faculty
  
- 20%**      **Peer Contribution to the Project**
  - Evaluation of each team members contribution by others
  - Faculty observations from team meetings and presentations
  
- 20%**      **Class Participation and Attendance**
  - Participation in class discussions, lectures and exercises
  - Short personal reflection essay about what you learned

Grading follows the required curve for HBS classes. Approximately the top 20% of students will receive a category 1. The lower 10% of students will receive a category 3 (a low pass). All other students will receive a category 2.

**E-Lab Example Schedule (Guests unconfirmed; past examples shown)**

Week	Date	Topic
0	January 15	Deadline for cross-registrants to apply for E-Lab
	January 19	E-Lab project portfolio available on course website Students submit resumes; available on course website Students rank project choices; available on course website Students may network with host firms and other students
1	January 26	<b>First Class. Attendance Mandatory.</b> Course Introduction: Objectives and Pedagogy Team Formation: Exercise using student preferences Host Firms: Pitch E-Lab Projects in Class
	February 1	Teams submit members and top three project choices
2	February 2	<b>Topic: Who is the Target Customer?</b> Case: Space Data Corporation Reading: Disciplined Entrepreneurship, Ch 1-5 Exercise: Project Launch and Team Planning
3	February 9	<b>Topic: What can you do for your Target Customer?</b> Case: Red Hat and the Linux Revolution Reading: Disciplined Entrepreneurship, Chapters 6-8 Guest: William Aulet, Managing Director, the Martin Trust Center for MIT Entrepreneurship
4	February 16	<b>Topic: Quantifying Customer Value Propositions (CVP)</b> Exercise: Developing a Customer Value Proposition Guest: TBA
5	February 23	<b>Topic: What is your Minimum Viable Product (MVP)?</b> Case: The Rise and Fall of Iridium Reading: TBA Guest: TBA
6	March 1	<b>LIVE CASE STUDY</b> Case: Makadet Health Guest: Jim Dougherty, CEO <i>Note: Deadline for first team mentor meeting with faculty</i>
7	March 8	<b>Team Presentations:</b> What is your host firm's <i>Customer Value Proposition</i> ?

- 8      March 15              No class – spring break
- 9      March 22              **Topic: How will you “Go To Market?”**  
Case:              TBA  
Reading:          TBA  
Guest:              TBA
- 10     March 29              **LIVE CASE STUDY**  
Case:              Oasys Water  
Guest:              Jim Matheson, CEO
- 11     April 5                 **Topic: How will you Make Money?**  
Case:              TBA  
Reading:          TBA  
Guest:              TBA
- 12     April 12                **Topic: How will you Scale/Grow the Business?**  
Case:              TBA  
Reading:          TBA  
Guest:              TBA
- Note: Deadline for second team meeting with mentor*
- 13     April 19                No Class – Deadline for Second Mentor Meeting
- 14     April 26                **Team Presentations:**  
Pitch Summary Conclusions; Team on Team Feedback
- May 2-6                  Final Presentation to Faculty (times vary: via sign up)
- May 2-6                  Final Presentation to Host Firm (after faculty presentation)