E-Lab is a project-based action learning course, in which teams of students are matched to startups to work on problems of strategic importance to the venture.

**E-Lab goals include**

- Gaining experience with fast-paced, massively scalable startup companies
- Applying academic knowledge to the problems faced by entrepreneurial firms in a context of uncertainty, extreme time pressure and decision making based on limited information
- Learning quickly about a new industry, technology, market
- Strengthening your ability to analyze technical feasibility, to identify early-adopters and the right target market, to set pricing, and to define a path to commercialization, ultimately delivering real value to the startup
• Learning key tools and skills needed in entrepreneurial ventures, including the ability to effectively coordinate work in a diverse team

• Providing exposure to entrepreneurial environments to inform future career decision

Quick Overview
E-Lab is a 12-unit course and involves a significant body of independent work in a fixed time period. Projects vary widely, but typically involve investigating potential markets for a new technology, evaluating the competitive and strategic landscape, finding the right path to commercialization. E-Lab is a hands-on course, so be prepared to spend a lot of time with customers and experts.

The course includes both MIT Sloan students, non-Sloan graduate students, and students from Harvard (and beyond). Each team will include a mix of students with business and non-business backgrounds.

Logistics
Course website:  http://elab.mit.edu/
Canvas website:  https://canvas.mit.edu/courses/1651

E-Lab involves significant independent initiative. You should regularly check the course website for any updates or information.

Teams are able to leverage the resources of the Martin Trust Center for MIT Entrepreneurship (E40) to advance their project: http://entrepreneurship.mit.edu/.

Grading
The main learning from E-Lab takes place outside the classroom, when students apply the frameworks and tools discussed in class to real world problems. The grading is meant to reflect your ability to work with your team to effectively deliver value to your startup. Final grades will be based on the following components:

- Class participation and attendance (25%)
- Weekly status check-ins (10%)
- Project scope final draft (10%)
- Intermediate in-class presentation (10%)
- Final in-class presentation, executive summary, and appendix (30%)
- Team peer evaluations (15%)

Final presentation to host companies will take place after your final in-class project presentation. While the course faculty will follow-up with host companies, host companies are not part of the grading process.

Pre-Course Work: Exploring Ventures and Teams
We have recruited some great startups: each company is relatively young, has a
“real” technology or prototype, may have raised early-stage funding but, more importantly, has the potential of being massively scalable.

You must review the materials on the ventures before the first class (on the Canvas website).

Class Format
Teams will spend the semester working on their E-Lab project, with frequent, regular company contact. Classes are scheduled weekly from 7:00–10:00 PM on Tuesday evening. Several sessions will be dedicated to giving you feedback on your progress. Faculty will also arrange meetings outside of class time to provide additional input to the teams and check-in with the startups.

Each session has been designed to cover tools and concepts that every entrepreneur should understand, and students should be able to apply these tools and concepts to their host companies. Given the diversity in project objectives however, not every class session may be directly relevant to your specific project.

While the precise rhythm will vary, below is the typical structure of the class:

- At the start of every class, we will randomly ask two teams to present project updates (this weekly status check-ins count 10% of your grade). The purpose is for the faculty to provide real-time feedback, as well as to facilitate discussions with the rest of the class.
- Then we will have a 60-minute lecture or a workshop on the topic of the week
- We will close out the class by having a reflection session where we ask everyone to discuss what they have learned.

Attendance and Participation
- Class participation and attendance are a major component (25%) of the class.
- Because we only have twelve classes, it is extremely important that you attend every class. But we also understand that extenuating circumstances may arise; you may have two excused absences maximum for the semester. You must email the TA in advance to ask for an excused absence.
- Participation will be graded each class on a scale of 0, 1, and 2. You receive a score of zero if you do not participate; a score of one if you participate, and a score of two if you participate and move the class discussion in a meaningful way.
- If you have an unexcused absence, you will receive a zero for participation that day in addition to receiving a zero for attendance. If you have an excused absence, the class you missed will not count towards the denominator when we calculate your participation grade. This effectively means that each class that you do attend will count more toward your participation. (For instance, if you miss one class out of the twelve classes, we will grade your participation based on just the eleven classes you attended.)
**Working with Your Host Company**

The first and most important task following the formation of E-Lab teams is setting up the first follow-up meeting with your matched host company. The aim of this meeting is to specify project objectives, agree to major milestones, and define how you will measure success.

*We have found that teams that spend the time upfront learning as much as possible about their host company have better outcomes.* There are three critical issues that you will need to manage with your host company – expectations, access, and timing.

**Expectations** - Successful E-Lab projects are those that are able to focus on a well-defined, relatively narrow, but critical problem for the host company. Given the turbulent life of a startup, E-Lab projects often change or refine their scope during the semester. During your first meeting with your host company, the entire team should work hard to identify what aspects of the project are of direct interest to the host company, and what barriers are anticipated in terms of access, analysis, and implementation.

**Access** - All E-Lab host companies are expected to offer access and engagement by the company leadership to help shape the overall objectives of the project and allow you to get your project completed in a timely and effective way. Frequent high-level contact has been a key element of past successful E-Lab projects. Access to prospective or actual customers is also essential for E-Lab projects. You must address this issue up-front with your host companies.

**Timing** - *Front-load the project!* The semester goes by very quickly and involves a lot of work. Most teams will be working with outsiders, and so you will not have control over scheduling issues. During the semester, remain in close contact with your company and the course faculty.

*Please reach out to the faculty and the TA if there is a problem setting expectations and getting access to your startup: we would rather intervene early!*

Your final formal presentation to the host company typically occurs after your final MIT presentation/feedback session. After your final presentation to the company, the course faculty will close the loop with the founders to see how they felt the project went. *Your course grade will depend only on your internal MIT evaluation, not on the views of the company.* But we encourage you to ask for feedback from the company as you proceed.

**Working with Your E-Lab Team**

One of the objectives of E-Lab is to have students gain experience in working within a diverse team. In E-Lab, each student is also a teacher. Engineering and science students will be important in helping their teams understand the relevant technology. MBA students will help others understand how to analyze business performance. All
team members will complete an intermediate and a final 360-degree evaluation of their team. The team evaluation contributes to 15% of the total class grade.

**Professionalism and Ethics**

You are a representative of MIT. Your behavior will affect people’s opinions of you and of MIT. As a representative of the MIT community, it is your responsibility to be competent, ethical, professional, and polite. Ethics require special attention with startups and technology companies. You have already agreed to maintain the confidentiality of the company information on the course website. **Host companies may ask you to sign a non-disclosure agreement (NDA). When this happens, please reach out to the course faculty, as MIT has a special process for NDAs.** Ask the company to be clear on the information you can or cannot share, whether or not MIT signs an NDA on your behalf. 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 to the company; but the company must weigh this against protecting their key information. Some companies may be in stealth mode, and cautious of revealing too much.

**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 before you choose a company.**

You may face ethical issues when you interview customers, competitors and others during your field research. Start by saying that you are an MIT student working on a course project with a company. If an interview subject asks which company, tell them. If an interview subject asks for additional information, be careful with the information you release. If a potential subject refuses - or demands inappropriate information as the price of cooperation - politely thank them and decline. You’ll find that most people will be happy to help, especially if you are straightforward with them, and make it clear why you value their opinions and what you will do with them.

**Class Schedule**

**Tuesday 7:00-10:00 pm**

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>September 10th</td>
<td>Introduction, Team Formation and Startup Pitches</td>
</tr>
<tr>
<td>2</td>
<td>September 17th</td>
<td>Scoping your E-Lab Project &amp; NDA</td>
</tr>
<tr>
<td>3</td>
<td>September 24th</td>
<td>Further Scoping of Project and Teamwork Dynamics</td>
</tr>
<tr>
<td>4</td>
<td>October 1st</td>
<td>Primary Market Research, Data Collection, and Analysis</td>
</tr>
<tr>
<td>5</td>
<td>October 8th</td>
<td>Entrepreneurship Framework</td>
</tr>
<tr>
<td></td>
<td>October 15th</td>
<td>No Class: Columbus Day Holiday</td>
</tr>
<tr>
<td></td>
<td>October 22nd</td>
<td>No Class: SIP Week</td>
</tr>
<tr>
<td>6</td>
<td>October 29th</td>
<td>Team Meetings with Faculty</td>
</tr>
</tbody>
</table>
CLASS 1: Introduction, Team Formation and Startup Pitches
Welcome to E-Lab! In the first class we will briefly introduce the course and work on team formation (maximum 4-6 people). After that, the startups will join the session and present the strategic problems they are facing. Potential teams and ventures will then have an opportunity to discover more about each other, before submitting the ranking that will be used to match each team to one startup.

Students are required to carefully read the profiles of the startups before the first class (material at Canvas website).

Students will have to submit their ranking of the top 3 startups they would like to work with and why (300 words max) by September 11th at 11:59pm. Based on your preferences, we will form teams and match each team to a startup.

CLASS 2: Scoping Your E-Lab Project
Two of the key challenges of E-Lab are (a) scoping a mission-critical project with your host company that nonetheless can be achieved within the constraints of a single semester and (b) working effectively with your host company as a team in order to achieve a strong final result. In this class, we will provide key tools to address both of those challenges. We will also go over the NDA process.

CLASS 3: Team Coordination and Effectiveness Exercise. Project Scoping Workshop
In the first part of the class each team will define a “responsibility matrix” to coordinate future teamwork. In the second one, we will review project scope slides and offer you feedback before your final submission.

The final project scope slide is due on September 30th at 9:00am to elab-ta@mit.edu.

CLASS 4: Primary Market Research, Data Collection, and Analysis
In this session, we will explore qualitative and quantitative methods for collecting and analyzing original data for your E-Lab project. After the lecture, we will meet with each team to provide targeted feedback. Suggested reading: Anderson E. T., Simester D. (2011) “A Step-by-Step Guide to Smart Business Experiments”, Harvard Business Review http://hbr.org/product/a-step-by-step-guide-to-smart-business-
Suggested lecture: David vs. Goliath (Ted Talk and audio commentary on NPR by Malcolm Gladwell)

Peer Team Evaluations are due before class on October 7th at 11:59pm.

CLASS 5: Entrepreneurship Framework

CLASS 6: Team Meetings with Faculty
Each team will meet with faculty to review their progress. During the meeting we will discuss primary market research or experimental data deliverable and review content for intermediate presentations that will be due the following week.

CLASS 7: Intermediate Presentations
All teams have to submit their slides and supporting materials by November 3rd at 11:59pm to elab-ta@mit.edu.

CLASS 8: Entrepreneurial Strategy
The first part of the session will focus on the broader question for startup ventures of how to develop and implement an effective entrepreneurial strategy. We will focus on the key strategic trade-offs entrepreneurs face in choosing an entrepreneurial strategy, and how effective E-Lab projects can help a startup to establish and then sustain competitive advantage. In the second part we will meet with each team to provide targeted feedback.

CLASS 9: Startups and Funding
This class will focus on how startups at different stages of their evolution can fund their growth. We will briefly discuss crowdfunding, angel and venture capital investment, and how the E-Lab startups could benefit from different sources of capital. After the lecture, we will meet with each team to provide targeted feedback.

CLASS 10: Team Meetings with Faculty
Each team will meet with faculty to review their progress. During the meeting we will discuss your progress in their your presentation and address any issues to complete the project.
CLASS 11: Starting a Venture, Building a Team and Culture
This class will focus on key decisions/actions of a ventures leadership that have a huge impact on future success. Topics like culture, team selection, compensation philosophy, organizational structures, ‘risk’ decisions will be covered.

CLASS 12: Final In-Class Presentations
This will be the final formal meeting of E-Lab. Each E-Lab project team will make a formal presentation, followed by Q&A.

![Warning]
All teams need to submit their slides, executive summary, and supporting appendix by December 8th at 11:59pm to elab-ta@mit.edu. Final team evaluations are due before the final presentation.

CLASS 13 (NO CLASS): Final Presentations – Host Company
Each E-Lab team will arrange a mutually convenient time to arrange a presentation to senior members of the executive team at your host company. After your final presentation to the host, course faculty will close the loop to see how they felt the project went. Your course grade depends only on your internal MIT evaluation, not on the views of the company.