



MASSACHUSETTS INSTITUTE OF TECHNOLOGY
15.371/10.807/2/937 Innovation Teams
Fall, 2004

Instructor: Ken Zolot, ZOLOT@MIT.EDU

Time: Wednesday, 6-9PM
Room: 2-139

Teaching Assistants:

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Web site: Stellar: <http://stellar.mit.edu/S/course/15/fa04/15.371/>

Overview

I-Teams brings together highly qualified and motivated graduate students with MIT research labs and the business community. The research projects are all winners of Deshpande Center grants. The student teams assess the commercial feasibility of scientific and engineering breakthroughs. The teams are guided by the labs' Principal Investigators, faculty from MIT's Entrepreneurship Center, and leaders from the local business community. Together we determine technological directions and identify product markets. Together we deliver on the promise of bringing university-born innovations to fruition.

Team dynamics is naturally a large component of the class. As such, portions of the class will focus on identifying, structuring and maintaining a project development team.

Developing a go-to-market plan is an iterative process, so the class is designed with many small checkpoints. We expect that you will put forth hypotheses, test them, then go back and revise them based on customer input or other validations. Every two weeks you'll submit a "snapshot" of your final report. Initially you might submit little more than an outline. Subsequent submissions will have sections expanded or rewritten.

Class Goal

There are two final work-products for the class: a written report and an oral presentation.

The final report will be the team's evaluation of the commercial potential for the technology. This report can serve as the starting point for a subsequent team building a business plan or licensing program.

Preliminary

Concurrent with the end of the semester is an opportunity to present the team's findings at the MIT Venture Capital Conference. While we recognize that many of the projects won't yet be ready for funding by a Venture Capitalist, the timing of the symposium provides a good opportunity for the teams to receive immediate feedback/critique from a group of professionals experienced in evaluating business pitches.

Registration and Admission to the Class

Permission of the instructor is required and will be given after the third week of class. Please note two distinct bits of terminology that we use to describe this process:

Registration is the official MIT process of listing the course on your transcript. You can do this in one of two ways:

- (1) You might have pre-registered for the class, or signed up on registration day. Registration for the class does not result in automatic admission to the class, so it's not a good idea to pre-register, especially if doing so requires you to expend points in some sort of bidding system; or
- (2) You can submit an "add" form by October 8th (the recommended method).

Admission is confirmed after the third week of class, and is a two-stage process.

As stage one, you are to submit a resume and cover letter, as described in <http://web.mit.edu/deshpandecenter/iteams>

In stage two, you will complete various exercises and assignments during the first weeks of the class. Just after the third week of class, we will announce the names of the students who have been admitted to serve on each i-Team.

Workload and Grading

All projects should be electronically submitted to the assigned team TA.

Grading has five equally weighted components:

- *Team Final Report*
- *Team Final Presentation*
- *Team Work Ethic and Quality of Teamwork*: the instructor will grade based upon his perception of the team's approach to the project.
- *Individual*: The instructor and TA will assess each individual's contribution to the overall class. Also, each team member will confidentially grade his/her peer team members, and the instructor will review these grades and make an assessment as to whether any individuals have received rankings beyond the ordinary.
- *Classroom Participation*: Attendance is mandatory. Please do not sign up for this class unless you have carefully reviewed your calendar and can assure us that you will be every class.

Preliminary

In class oral status updates: Each week, two teams will give a short (five minute or less) presentation on their current status and have a short (five minute) time to interact with the other teams. Many students in the class have large professional networks, so teams should use the status update as an opportunity to explain issues they might have and identify potential assistance/networking opportunities within other teams and their networks.

Final report: This report should be a complete evaluation and recommendation for the commercialization of the team's technology. The report summarizes the semester's work.

The format and length of the final report is up to the team. The instructor will grade the reports based on whether teams have done an effective job of analyzing the technology, markets and relationship to competitors.

Snapshots: Teams will begin compiling the final report in the first class and will submit snapshots of the final report at two week intervals throughout the semester. Each snapshot should contain the final report in its current unfinished state along with a cumulative list of changes. Snapshots are due before class so that teams and the instructor may review the reports during class.

Final Oral Presentation: This is a distillation of the final report into a short presentation.

Preliminary

Schedule

1, 8-sep Teambuilding	<ul style="list-style-type: none"> • Intro to class, teambuilding process; • PIs give 8-10 minutes overview presentations • Discussion with PIs. • Teams prepare very brief Powerpoint presentation on challenges facing the technology.
2, (no formal class meeting this week, work independently)	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> • Team self-assessments. (due Friday 9/17) • Revise presentation from 9/8 and prepare to present on 9/22 <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • No in-class meeting on Wednesday night. Students find their own block of time at some point during the week.
3, 22-sep Market & Competitive Analysis	<p><i>Reading Due:</i></p> <ul style="list-style-type: none"> ▷ Scott Shane article <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Communications Strategy • Understanding the customer; the iterative process of refining the technology based on market; • Scott Shane case review; <p><i>In-Class:</i></p> <p>(note: teams will be finalized by Friday, 9/24)</p>
3.5, 27-Sep (Monday)	Catalyst + Team networking @ 5pm (optional)
4, 29 –sep Teambuilding	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> ▷ Schedule appointment for team with TLO and PI (meeting to take place after Oct 6 but before Oct 13) ▷ Snapshot due <ul style="list-style-type: none"> ○ Initial TOC for final report <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Introduction to X-teams, incl. video <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Group X-teams assignment discussion groups, report back to class

Preliminary

<p>5, 6-oct Technology Assessment and Intellectual Property</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> • Prepare 5-min presentation on applications being considered, thoughts on 1-3 initial target markets. <p><i>Reading Due:</i></p> <ul style="list-style-type: none"> • Christensen • X-Teams article <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Intellectual Property and Licensing <p><i>Updates:</i>1,2</p> <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Teams present applications they are considering (15 min total each) <p><i>(Note: invite Catalysts to hear presentations)</i> <i>(note: Oct 8 is Add Date)</i></p>
<p>6, 13-oct Market & Competitive Analysis</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> • <i>Have meeting with TLO</i> • Snapshot due <ul style="list-style-type: none"> ○ Include preliminary technology and IP Strategy, TLO report, applications + markets (from 10/6) <p><i>Reading Due:</i></p> <ul style="list-style-type: none"> • Utterback <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Disruptive Technologies • Where are you now, and who is the customer? <p><i>Updates:</i>3,4</p> <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Case study (Chaoticom), approach to finding the right market; • Group 2 case study
<p>20-oct No class – Sloan SIP</p>	
<p>7, 27-oct Market & Competitive Analysis</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> ▷ Snapshot due <ul style="list-style-type: none"> ○ Revise preliminary market assessment and competitive analysis due with 1-3 target markets + justifications to initially focus on <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Customer profiles and the scientific method • Market sizing, estimating early adopters; • Review of technology adoption cycles, buyer profiles <p><i>Updates:</i> 5,6</p> <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Group 3 case study

Preliminary

<p>8, 3-Nov Go to Market strategy</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> ▷ List 20 customers you want to speak with and the questions you would ask. <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Understanding other players: large companies, partners, investors, customers, competitors <p><i>Updates:</i> 1,2</p> <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Group 4 case study
<p>9, 10-nov Go to Market strategy</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> ▷ Snapshot due <ul style="list-style-type: none"> ○ Include summaries of customer interviews. <p><i>Lecture:</i></p> <p><i>Updates:</i> 3,4</p> <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Group 5 case study
<p>10, 17-nov Technology Assessment and Intellectual Property</p>	<p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Intellectual Property Strategy <p><i>Updates:</i> 5,6</p> <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Present final challenges, group discussion <p><i>(note: this is Drop Date)</i></p>
<p>11, 24-nov No Class</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> ▷ Snapshot due: <ul style="list-style-type: none"> ○ Final draft of written assessment
<p>12, 1-dec Wrap-up</p>	<p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Practice pitches for MIT Venture Capital Conference <p><i>(Note: invite guests to hear presentations)</i></p>
<p>12.5, 4-dec Presentation</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> • Final presentation at MIT Venture Capital Conference
<p>13, 8-dec Wrap-up</p>	<p><i>Assignment Due:</i></p> <ul style="list-style-type: none"> ▷ Final written assessment and go-to-market strategy due <p><i>Lecture:</i></p> <ul style="list-style-type: none"> • Panel discussion on early stage funding alternatives; govt funding vs. blockbuster <p><i>In-Class:</i></p> <ul style="list-style-type: none"> • Assessment of Innovation Showcase, discuss next steps • Team self assessment

Preliminary

Notice on intellectual property for i-Teams members

You will be working with groups that may be filing patents or otherwise involved with confidential information and sensitive intellectual property and product development. The MIT Technology Licensing office oversees any questions on these matters, and has a strong history of good relations with labs and entrepreneurs. MIT wants to stimulate the growth of its technologies into companies, and wants for the people involved to be well motivated and compensated. There are a few guidelines to consider before you agree to serve on an i-Team:

Confidentiality: You may come in contact with confidential information. The faculty Principal Investigator (or others on the team) will tell you which information is confidential. Treating such information with care is vital to securing the intellectual property rights to the technology. Be aware of how you propagate confidential information, including the turning in of assignments for the i-Teams (as an exercise, treat your assignments the way you'd treat pitches to potential investors or partners: describe enough to generate excitement without divulging anything proprietary).

No public disclosure: Faculty or teammate intellectual property discussions in an MIT classroom or other MIT academic setting (with no third parties present) may not constitute "public disclosure." However, presentations where the public is invited (if applicable) or present must not include any confidential information.

Assignment of inventions: While you are working with the team, any contributions you make to the team's effort become the property of MIT or whatever group holds the right to the intellectual property being produced in the lab. Ownership of intellectual property is governed by MIT policy: If the research leading to an invention was supported by sponsored research funding or made significant use of MIT facilities and/or MIT-administered funds, then MIT owns the intellectual property.

No implied eligibility for compensation or equity participation: Serving on an i-Team (or even making a vital contribution to the i-Team) does not necessarily entitle you to get paid by or own stock in any company that might get spun out as a result of your work. Of course, there's nothing to prevent you from later seeking employment with the spun-out company, and at that point you may be compensated from that company. If MIT licenses a patent or copyright on which you are an inventor/author, you are entitled to receive a portion of the royalty and/or equity MIT receives from the licensee in accordance with MIT's royalty distribution policy.