

E145 Course Syllabus

Course Objective

This course introduces the fundamentals of technology entrepreneurship, pioneered in Silicon Valley and now spreading across the world. You will learn the process that technology entrepreneurs use to start companies. It involves taking a technology idea and finding a high-potential commercial opportunity, gathering resources such as talent and capital, figuring out how to sell and market the idea, and managing rapid growth.

The class demonstrates the entrepreneurial mind set ... when others see insurmountable problems, people look for opportunities in technology and business solutions. A technology entrepreneurial perspective is also a wonderful way of thinking in order to tackle new opportunities in social entrepreneurship, whether it is in government or NGOs.

Who is this Course For?

This course is designed for undergraduates (and co-terminal students) from all majors, including science, engineering, and humanities students who seek to understand what the entrepreneurial mindset and its key processes are about. Topics introduced in this course are relevant for future founders of enterprises, as well as the future employees of a independent or corporate startup.

How Do We Teach this Course?

Through case studies, lectures, workshops, and projects that cover high-growth ventures in information technology, electronics, life sciences, green technology and other industries, this course provides the student with the tools necessary to successfully identify a true business opportunity and to start, grow and maintain a technology enterprise.

We will cover material organized in four modules:

1. The Entrepreneurial Perspective
2. Opportunity Recognition and Evaluation
3. Assembling Resources and Managing Growth
4. Entrepreneurship and You

How Will You Learn in this Course?

Entrepreneurship is both an individual and team activity. Therefore this course incorporates both individual and group efforts. Students form project teams early in the quarter and meet regularly to prepare for class discussion. We encourage students to build groups with people from a diversity of majors and from the U.S. and abroad.

Each team will be required to complete written case analyses throughout the quarter. Teams are also required to complete two in-class presentations called an "Opportunity Analysis 1"

and an “Opportunity Analysis 2.” Opportunity Analysis 1 will be given midway through the course, and will present the business opportunity using the Business Model Canvas, report on what you have learned so far, and what assumptions you will test on the Business Model Canvas to prepare for Opportunity Analysis 2. In addition, students submit individual email assignments and complete a "Personal Business Plan" using methods learned in the course.

Group discussion is encouraged in preparing for both the team and individual assignments. Note that learning to successfully manage group dynamics, including conflicts and roles, is a key educational component of the course.

Time & Location

During this term, the course will have two class sessions per day on Tuesdays and Thursdays: 3:15 – 4:30 PM and 4:45 – 6:05 PM. For most classes, all three sections will meet in the large conference hall, Building 320 Room 105. For some sessions, such as when the OAP 1 and OAP 2 Presentations are being made, each section will meet in a different room.

Section 1, [Building 200, Room 205](#)

Section 2, [Thornton Center, Room 110](#)

Section 3, [Hewlett Teaching Center, Room 102](#)

Individual Class View	Class Title	Days & Times	Room	Class Dates
ENGR 145-01 (14018)	TECHNOLOGY ENTREPRENEURSHIP (Lecture)	TuTh 3:15PM - 6:05PM	320-105	Jun 24, 2013-Aug 15, 2013
ENGR 145-02 (15350)	TECHNOLOGY ENTREPRENEURSHIP (Lecture)	TuTh 3:15PM - 6:05PM	TBA	Jun 24, 2013-Aug 15, 2013
ENGR 145-03 (44172)	TECHNOLOGY ENTREPRENEURSHIP (Lecture)	TuTh 3:15PM - 6:05PM	TBA	Jun 24, 2013-Aug 15, 2013

The Teaching Team

Course Lead: Tom Kosnik kosnik@stanford.edu 650 450 3330

Guest Speakers (and Mentors to some teams!)

Section 1: Rebeca Hwang rebeca@younoodle.com

Section 2: Lena Ramfelt lena@ramfelt.com

Section 3: Betsy Sperry betsysperry@hotmail.com

Course Assistants:

Section 1: Chengcheng Fan fance@stanford.edu

Michael Heinrich mh2012@stanford.edu

Section 2: Lingren Zhang lz7@stanford.edu

Lohith Chengappa lohith@stanford.edu

Section 3: Ernestine Fu ernestinefu@stanford.edu

John Dodini h.john.dodini@stanford.edu

Admission

Course signups should be available via Axess. Axess signup gives just the first step for getting into the class. Students must come to the first course session to be admitted to the course. Each person must bring two copies of his/her resume to class. We will use the resumes to determine who is admitted. Once admitted please upload digital a copy your resume to a folder marked “student resumes in the materials Section on coursework.

The course is designed for undergraduates and co-terminal students with preference given to seniors and co-terms. Enrollment will be a maximum of 60 students per section. All majors are encouraged to enroll in the class. During summer school, high school students who have completed at least their Junior Year in High School may apply. The class is not open to other graduate students. There are no prerequisites for the class. However, courses in accounting and finance are highly recommended.

The class roster will be finalized during the 3rd class period. Please make sure to be on time.

If you have further inquiries regarding admission to the course, please direct them to the E145 CAs:

Section 1: Chengcheng Fan, Michael Heinrich: fance@stanford.edu, mh2012@stanford.edu

Section 2: Lingren Zhang, Lohith Chengappa,: lz7@stanford.edu, lohith@stanford.edu

Section 3: Ernestine Fu, John Dodini: ernestinefu@stanford.edu, h.john.dodini@stanford.edu

Please do not email the instructors like Tomk directly. His email inbox is so overloaded that almost half the emails are never seen at all. To reach Tomk, you can call, SMS or send a Facebook message to his cell phone: 1-650-450-3330. He will do everything in his power to respond to messages sent using those media within 24 hours on weekdays, and within 48 hours on weekends.

Credit:

4 units. Letter grade only. Qualifies for the Technology in Society requirement for most majors in the School of Engineering.

Course Materials

Primary Readings

Gear Up: Your Best Idea Ever, Kosnik, Kjellberg, and Ramfelt, entire book (It’s short) and online tools

Civic Work, Civic Lessons, Ehrlich and Fu. Introduction, Chapters 3, 5 & 6, The Way Forward (Book available July 16)

Four Steps to the Epiphany, Blank. Chapters 1-3 (PDF Available on Coursework)

Assigned Reading, found in **E145 13 SUM Class Preparation Assignments.pdf**, which is available in the materials section of Coursework.

Optional Reading

Technology Ventures, Third Edition , Byers. Dorf & Nelson Chapter 2-5, 7, 11, 19

Blank, Steve (2012) *The Startup Owner's Manual*

Policies

Students will be evaluated based on attendance and contribution to in-class discussions and sections, as well as timely completion of assigned readings and email assignments. Think of this as an opportunity to stretch yourself and learn skills like teamwork, public speaking, persuasive writing, and defending your ideas, as well as the fundamentals of the entrepreneurial process. The teaching team will endeavor to create a supportive environment, where there is no penalty for taking a definite stance and expressing new ideas.

Administrative Information

There are only seven weeks in this course, barely the minimum necessary to cover the essentials of this topic. Every student can miss two classes with no excuse, no questions asked. If you anticipate missing more than two classes, unless you have a very good excuse like illness, death in the family, or attending a wedding, please consider not taking the course. Any unexcused absence (after the first two which are “free and no penalty”) causes a decrease in your course grade.

If you expect to miss a class, please let the teaching assistants know ahead of time via email. It will be your responsibility to find out from your classmates or the teaching assistants what material was covered, what additional assignments were made, and to obtain any handouts you may have missed. Handouts will be available on Coursework in the Materials Section.

Important E145 assignments, announcements, and information are included in **E145 13 SUM Class Preparation Assignments.pdf**, which is available in the materials section of Coursework. Read these assignments thoroughly, and never come to class without reading and completing that day's assignments.

Given the importance of class participation and its grading, we will do our best to get to know you quickly. Feel free to discuss the course and your learning progress with the instructors at any time. We are always happy to discuss items of interest. The teaching assistants are also available for questions you have about any issue. See them before or after class, or email them to set up a meeting.

Given the pace of this course, we will do all that we can to use class time effectively and ask you to do the same. This includes starting and ending on time. The teaching assistants will take attendance in the first five minutes of the class and we will end each class on time. Our distinguished guest instructors and speakers are aggressive,

successful, and articulate. Raise your hand and ask them questions at any time. They will be forewarned. They all have an earnest desire to help you understand entrepreneurship.

Grading Policy and Assignments

This course is available for letter grade only. See Policies for additional information. Grading will be determined using the following weighting system:

Individual participation in class and attendance (10%)

Individual Personal Business Plan Executive Summary (Online Assignment) (20%)

Two Team Written team case analyses (2 X 10 % = 20%)

Team Opportunity Analysis Project 1 (20%)

Team Opportunity Analysis Project 2 (30%)

Class Sessions

Attendance is mandatory at all sessions. Each person is allowed two unexcused absences for this quarter, no questions asked. Class 1 starts promptly at 3:15 PM (session 1) and Class 2 starts at 4:45 PM (Session 2). If you are more than 1 minute late, you will be counted as late.

You will be evaluated on your participation in classroom discussions, whether about the case under consideration or about the topic of the lecture. The grading of classroom participation is difficult because of an element of subjectivity not present in grading written assignments. Nevertheless, it is a vital part of the course. Most students feel comfortable in speaking up with thoughtful comments and questions, but some do not, and we wish to be fair to everyone. We do not grade on the number of times you speak, but on the quality of the question or comment. We encourage you to actively participate in classroom discussions, even if you are not comfortable talking in large groups. No opinion is held in disregard, and only through active discussion can we arrive at some consensus of reasonable action. It is never our intention to embarrass anyone. If you are not prepared, let one of us know before class and we will not call on you. Being punctual, present and prepared for our class sessions is an important part of contributing to the E145 learning community. Thanks for your commitment to be an active contributor to the E145 class discussions.

Required Readings

All assigned readings are to be completed before the session. Each required reading has been specifically chosen to provide a certain insight or skill; thus, every assignment is mandatory. Though there is no way to verify that students have read the material before class, all E145 lectures, study questions, assignments, and exams assume a fundamental understanding of many concepts provided by the readings. Consequently, failure to keep up with the assignments will have an adverse effect on your grade.

Recommended Readings

Supplementary readings are suggested that provide additional depth and richness for the topics considered each day. These readings are **not** required. While we hope that you will return to these readings as time permits, you are not expected to have completed the readings prior to class. As your time permits, we highly recommend skimming the recommended readings - an investment that we believe can be very rewarding.

Study Questions

You are encouraged to discuss each session in advance with your fellow students. In fact, you are required to form a study group consisting of four other students and then meet regularly before each class. These study groups will be formed in the second class session. The study questions are helpful preparation aids for each case while meeting with your study partners. Use the study questions for each session to prepare for class; the answers are not to be included in the e-mail assignment, although they may be used to focus and guide your homework discussion.

Preparation Assignments

Unless stated otherwise, upload any team preparation assignments are to be uploaded into The Student Assignments folder, which in the Materials folder on Coursework by 7 PM on the day before the session where the preparation was due. We will accept assignments up until class time with some penalty.

Please read the Case Analysis Guidelines, available on Coursework for more specific information regarding case assignments. Format your header in the following way: E145: Case Number, Case Name, Team Name (e.g. E145: Case 1, Micello, The Randys)

- **Team Online Assignments** - Team online assignments and case analyses are to be discussed as a team and then uploaded into The Student Assignments folder, which in the Materials folder on Coursework. The team online assignments will count towards the team grade.
- **Individual Online Assignments** - *These assignments MAY be discussed in teams, unless the assignment explicitly states otherwise.* However, each person must submit his/her own assignment. Online assignments should be clear and concise, and expressed in the same style as case analysis submissions. These online assignments will be counted towards the individual participation grade.

Case Analysis Guidelines

The case study is intended to give you an opportunity to apply the concepts of the course in the context of a "real" business situation. Each of the cases are based on a key situation or event in the history of a high tech company. The two cases we will cover in E145 are:

Wrightspeed Powertrains: Picking Markets and Partners

Micello in 2010: Should We Sign the Term Sheet?

All teams are responsible for submitting your analyses of the cases by 7 PM on the evening before the day the cases will be discussed in class. Submissions should reflect an understanding of the critical issues of the case, integrate the material covered in class and present concise and well-reasoned justification for the stance that the group takes. Each case analysis should be in the format of a DEDART which is described in detail below.

DEDART Submission Format Guidelines

PUT IN FILE NAME:

E145 13 SUM: Case Name, Team Name

i.e. E145 13 SUM: Micello, The Randys

PUT IN POWERPOINT OF YOUR "DEDART" OF THE CASE STUDY:

DEDART is a method for analyzing cases that has proven extremely effective in thousands of case openings since it was created in 1990.

1. ***DIAGNOSIS - What is the problem/opportunity?***
2. ***EXPERIENCE – How will customers' experience the benefits of the new product?***
3. ***DECISION - What is your plan of action?***
4. ***ANALYSIS - Why is your plan the best alternative?***
5. ***REALITY TEST - What are the risks? How will you prevent them from happening? (mitigation strategy) What will you do if they happen anyway? (contingency plan)***

Tom Kosnik first created DDART for a High-Tech Marketing Course at Stanford University in 1990, based on synthesis of Bonoma and Kosnik *Marketing Management: Text and Cases* (1990) and Kosnik's consulting experiences with startups and global technology companies from 1978 – 1989. DDART became DEDART with addition of "experience" in 2010.

At the beginning of each of the two case sessions, two teams are selected to open the discussion. The members of each team then present the team's opening. All openings will be graded, whether the team presents or not.

Each of the two case openings is worth 10% of your total grade.

Team openings must not exceed 10 minutes. The team grade drops one letter grade for every minute over 10 minutes that you continue. You are responsible for managing your time.

The opening team will be expected to use a PowerPoint presentation (or PDF) with Excel backup economic analysis to communicate concisely, clearly, and powerfully. Include speaker notes to accompany each PowerPoint slide that give highlights of what you will say in presenting the slide.

This will allow us to more effectively grade your opening. It should also reduce clutter on the PowerPoint slides themselves.

Maximum length for your presentation is a cover slide with learning team name and names and photographs of the teammates, plus six PowerPoint slides and at most two (8.5X11 inch) pages of Excel spreadsheets. Any speaker notes must fit in the space provided on the "Notes" View of the PowerPoint slides, **using at least a 10-point font**. Use the DEDART Framework. **Your font on slides must be at least 28 points to be legible to your classmates from the back of the room.** Your work will be graded on what is on the slides and in the notes, not by what you say, to be fair to the non-presenting team. Make sure your arguments are well articulated in writing.

NOTE: Since the rest of your colleagues and the teaching team have analyzed the case already, the opening team should avoid regurgitating case facts. Move to the heart of the diagnosis, experience, decisions, analysis, and reality-test. Your slides and spreadsheets should show new information that your team has created in its DEDART, NOT what we have already read in the case.

Style Guidelines for E145 Submissions

Avoid common errors in case analyses and other submissions, such as:

- Focusing too heavily on minor issues or those on which there are little data.
- Lamenting because of insufficient data in the case and ignoring creative alternatives.
- Rehashing of case data -- assume the reader knows the case.
- Not appropriately evaluating the quality of the case's data.
- Obscuring the quantitative analysis, making it difficult to understand.

Teams will lose points submissions that

- are late
- exceed the page limit
- are not well integrated and lack clarity
- do not address timing issues
- do not recognize the cost implications or are not practical
- get carried away with personal biases and are not pertinent to the key issues
- are not thoroughly proofread and corrected.

Students with Disabilities

Students with documented disabilities: Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Student Disability Resource Center (SDRC) located within the Office of Accessible Education (OAE). SDRC staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the SDRC as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066).