NUvention Energy (ISEN 430 / ENTR 951)

The Lean Startup: How Today’s Entrepreneurs Use Continuous Innovation to
Create Radically Successful Businesses, Eric Ries, Crown Business, 2011 (read
before week 1)
(Available on Amazon as an e-book)

Fridays, 12:15pm – 3:15pm
Chambers Hall (600 Foster St.) Classroom, Evanston

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http://nuvention.northwestern.edu/energy

http://www.udacity.com/view#Course/ep245/CourseRev/1/Unit/473001/Nugget/420003

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OFFICE HOURS
I will try to be in the classroom by noon and will stay after class is completed. I am on campus every weekday. Please email me to schedule a time. Please contact other NUvention members directly to schedule an appointment.

PROGRAM OFFICES
ISEN, Chambers Hall, 600 Foster Street, #130, Evanston, 847-467-1475 / 847 467-0174 (fax)

Farley Center for Entrepreneurship and Innovation, Ford Engineering Design Center, 2133 Sheridan Road, #2-331, Evanston, 847-467-6347 / 847-467-4727 (fax)

COURSE OVERVIEW
NUvention energy is designed to expose students to all aspects of the business development process from the idea to the creation, financing and running of a start-up business.

In this class the concept of “application” extends to creating businesses to leverage innovations specifically in the energy space. Engineers are great innovators but sometimes a great innovation never reaches its potential since a business was not created to exploit it. NUvention energy is designed to teach you the skills to build a business. Students that are not engineering majors will also greatly benefit from this class. This course emphasizes the need for cross-functional teams, part of your grade will be based on how well you function in the team.

This class cannot make you into an entrepreneur. It can help you better assess whether an idea is a business opportunity and how to transform that opportunity into a business.

As you already know, the best way to learn something is to actually do it. Since we cannot find companies for all of you to run, we will do the next best thing. The class project will involve putting together a business plan within small groups. This process should help students take advantage of whatever current or future business opportunities they may choose to pursue.

COURSE GOALS
Our overall goal is to help you understand how to evolve an idea into a business. Our course objectives include:

- How to develop an idea
- How to assess whether and idea is a good business opportunity
- How to build a valid business model
- Obtain solid understanding of Lean Start-Up
- Developing sound business strategy
- Understand how to create value in a business
- How to market your business
- Building a successful team
- Developing and protecting intellectual property
- Developing compelling idea pitches and business models
- Understanding how to value a business
- How to raise capital
- Understand how to allocate equity among founders and employees

Over time, you will more than likely forget the some of the cases and other things you learn here. My hope is you never forget how to spot a good idea and develop it into a business.
STUDENT ROLE For you to spend the time reading, analyzing and writing up the cases, it is my responsibility to see that you get the most out of your efforts. I hope to create a classroom environment that is interesting and fun. Your participation in class is CRITICAL to accomplishing our goal. You should come prepared to discuss the assigned case and reading.

INSTRUCTOR ROLE My role as instructor is to facilitate the learning. You will do the majority of the talking. I will be taking notes on the board to help provide a path through the cases and the materials are mostly on blackboard that I will highlight during the course.

GRADING Your grade will be compiled from these different components:

- CLASS PARTICIPATION 10%
- BUSINESS IDEA/CANVAS/ELEVATOR 20%
- WEEKLY STATUS REPORTS 20%
- ADVISOR ASSESSMENT 20%
- BUSINESS PLAN 30%

Class participation will be graded based on quality versus quantity. I place high importance on comments that move the class discussion forward. Class attendance will be factored into your participation score.

For the business pitch/canvas, the students will form groups of up to four people and develop an idea pitch and a complete business model with supporting documentation for an idea they would consider pursuing.

CLASS FORMAT 70% of class time will be allotted to discussing the topic of the session, 30% will be allocated to either team feedback time and/or team workgroup time.

COURSE PREREQUISITE It is your responsibility to insure that you meet the prerequisites for this course.

BUSINESS PITCH This is a graded exercise where your team will be graded on the quality of the business concept and how well it was captured in the business plan.

BUSINESS PLAN This is due no later than April 19th. This is a document that describes your business in some detail. It will be contained in the business plan. Your thoroughness and details and business viability will be judged both in writing and in your team’s final presentation this week. This is a team graded deliverable.
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<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
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| 1    | 1/11/13| **Working in Teams**  
_Guest Speaker: Gail Berger_  
Lean Startup in Energy & Business Model Canvas  
_Mark Werwath and Mike Marasco_  
- Ries, 2011 (rd entire book)  
- Blank, 2012 – Chapters 1 & 2  
**Challenges and Positive Examples from Clean Energy**  
_Guest Speaker: Michael Gruber_ | • Develop customer development plan  
• Steve Blank video 1.5A and 1.5B. See link above |
| 2    | 1/18/13| **Acquion Case**  
_Mike Marasco_  
**Team Check-in**  
Two minute pitches  
**Business Model Canvas & Lean Design**  
_Marker Werwath & Mark Petri (to discuss technologies in energy space)_  
- Blank, 2012 – Chapters 3 & 4  
**Agentis Case**  
_Guest Speaker: Tim Stojka_ | • 2 minute elevator pitch to Advisory Board  
• Write down hypothesis for each of 9 parts of canvas, ways to test the hypotheses, and how to determine if the hypothesis passed or failed  
• Competitor analysis – incumbents, new entrants, substitutes |
| 3    | 1/25/13| **Customer Development**  
_Mark Werwath / Mike Marasco_  
- Blank, 2012 – Chapters 5 & 6  
**Agentis Case**  
_Guest Speaker: Tim Stojka_ | • SurveyMonkey survey and analysis |
| 4    | 2/1/13 | **Pivoting and the Search for the White Space**  
_Mark Werwath_  
- Blank, 2012 – Chapter 7  
**Systematic White Space Exploration**  
_Guest Speaker: Dan Brown_ | |
| 5    | 2/8/13 | **Entry Formation, General Legal & Regulatory Issues**  
_Guest Speakers: Jim Cahan and Elizabeth McCarthy_ | |
| 6    | 2/15/13| **Intellectual Property, Patents & Licensing**  
_Guest Speakers: Neal Marcus & David Dana_  
**Customer Validation**  
_Mike Marasco_  
- Blank, 2012 – Chapter 8 | |
| 7    | 2/22/13| **Selling**  
_Guest Speaker: Michael Gruber_  
- Blank, 2012 – Chapters 9 – 11  
**MIDPOINT REVIEW**  
_Advisory Board, Faculty, and Guests_ | |
| 8    | 3/1/13 | **Positioning, Pricing, etc.**  
_Mike Marasco_  
**Funding & Financing (Angel and Venture Capital)**  
_Guest Speaker: Michael Gruber_ | • Outside speakers arranged by Michael Gruber representing funders. |
| 9    | 3/8/13 | **Wrap Up – the State of Clean Tech**  
_Guest Speaker: TBD_ | |
| 10   | 3/15/13| **FINAL PRESENTATIONS**  
_Advisory Board, Faculty, Guests_ | |