



**MGT: 897 Entrepreneurial Finance**

Elon Boms and Olav Sorenson

Fall-1 2014, TTh 8:30-9:50

Evans Hall 4430

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**Course summary:**

Entrepreneurial Finance will explore all phases of capital planning and fundraising over the lifecycle of a new venture. The course will cover methods for developing a financial model and for estimating the amount of funding one might need. It will also review different strategies for meeting those financial needs and for assessing the risks, rewards and costs associated with each. In general, the course will approach these issues from the perspective of the entrepreneur but it will also discuss the perspective and the interests of the investor as well. Students should leave the course with an in-depth understanding of how best to finance different types of entrepreneurial ventures.

This course depends on active engagement. We expect students to participate in class discussions and to contribute to the development of their team projects. We would also encourage them, where relevant and possible, to do their own primary research (e.g., by interviewing potential customers and suppliers for your startup projects and/or founders and investors for their wisdom and perspectives).

**Assessment:**

We will evaluate your performance in the course on three components: participation in classroom discussions, a team project (with three deliverables), and three individual assignments. We will weight these elements as follows in determining the final grade.

<b>Component</b>	<b>Weight</b>
Class participation	20%
Pizza challenge	10%
Team project (3 parts)	40%
Individual assignments	30%

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### **Class participation:**

Through effective class discussion, we will all learn more about the subject. You add value when you (i) listen to others, (ii) constructively critique others' arguments, (iii) ask questions or pose arguments that improve our understanding of the materials, (iv) describe and connect related personal experiences to the discussion, and (v) integrate material from other courses into the discussion.

### **Team project:**

In the third session, students will self organize into entrepreneurial teams. Those students with an idea for a venture will have two minutes to "pitch" their project to other potential team members (i.e. the rest of the class). Following the "pitch" session, these would-be CEOs will have the remainder of the class to answer questions and to try to recruit other students to their founding team. A team must have a minimum of **three** members but can have no more than **six** members. If the CEO fails to convince at least two others to join the venture, then he or she must join another founding team. Please note that we do not consider the CEO role superior in any way to being a non-CEO member of a founding team. So, if you do not have an idea that you're passionate about pursuing, you should feel free just to shop around for an interesting and fun project to join.

The first deliverable for the team, due by **noon on September 15**, will be to produce a five-year monthly pro forma, detailing the expected expenses for bringing the team's product or service to market and its expected revenues. This model should also indicate how much capital the project will require by when. The best three financial models will have five minutes to present their idea and financial projections and five minutes to answer questions from the class on September 16. When you submit this assignment, please let us know whether you plan to pursue crowdfunding or convertible debt to cover the startup's capital requirements.

The second deliverable, due by **noon on September 22**, will be a first-round fundraising plan. This plan should include a pitch, either a short deck for potential angels or early-stage venture capitalists or a video for one of the crowdfunding platforms. The top two convertible debt pitches and the top two crowdfunding pitches will each have up to six minutes to present in class on September 23.

The final deliverable, due by **noon on October 8**, will be an exit plan. This plan should include the mode of exit, the expected valuation at the time of exit and an analysis of who will receive how much of the associated proceeds. Once again, the teams with the best three analyses will have up to six minutes to present their work in class and an additional four minutes to answer questions on October 9.

**Individual assignments:**

All students must complete three individual assignments, each of which will account for 10% of the overall course grade:

- 1) Building a financial model (Due: **September 11**)
- 2) Financial waterfall problem set (Due: **September 23**)
- 3) Exit analysis (Due: **October 7**)

**Laptops:**

The usage of laptops, as well as other Web-enabled devices, imposes a negative externality on the entire class. We therefore do not allow their use during class. The only exceptions to this policy will be during certain in-class activities in which such devices would facilitate research or the creation of financial models.

**Instructors:**

Please submit assignments by email to Tony Dini ([anthony.dini@yale.edu](mailto:anthony.dini@yale.edu)).

You can reach either of us by e-mail:

Elon Boms ([elon@launch-capital.com](mailto:elon@launch-capital.com))

Olav Sorenson ([olav.sorenson@yale.edu](mailto:olav.sorenson@yale.edu))

If you wish to schedule time to meet with Olav, please contact Tony Dini (email above), who can work with you to find an available time on Monday or Thursday afternoon. Elon will hold office hours from XXXX to XXXX on XXXX.

## ***Part 1: Capital planning***

### **August 28 (Thursday): “The Pizza Franchise”**

Randomly assigned teams of five (or six) will have 75 minutes to develop a pizza franchise in New Haven. They will need to estimate the capital required to start the business based on a rough (“back of the envelope”) analysis of the expected costs and time to break-even and propose a “deal” in the form of a five-minute pitch (with spreadsheet backup) for family and friends investors. The analysis should include the creation of a monthly P&L and cash flow for the first three years.

Teams may use their laptops and other devices during this exercise. They should feel free to supplement the data provided with whatever outside information they find useful. At the end of the class, teams should email their spreadsheet and pitch to Tony Dini (anthony.dini@yale.edu).

### **September 2 (Tuesday): Introduction to entrepreneurial finance**

Pizza Franchise Pitches (Top three teams pitch, 5 minutes each)

Lecture and discussion

- Why do we need capital in a business?
- Building a startup financial model
- Who provides capital in a business?
- Different kinds of capital (grants, pre-sales, debt, equity)
- Structure and expectations of the course

*Required Reading:*

- Feld & Mendelson, Chapters 1-2

### **September 4 (Thursday): Project team formation**

### **September 9 (Tuesday): Building a financial model I**

Lecture and discussion

- Primary drivers of capital and working capital needs
- Estimating the costs of research and development
- Estimating the costs of acquiring customers
- Estimating the costs of managing the supply chain

*Required Reading:*

- ???

## **September 11 (Thursday):** Building a financial model II

Case discussion (please use the following questions as study guidance)

- Does PlastiQ offer a compelling service?
- How easy will it be for others to copy and offer this service?
- Should PlastiQ sell through merchant acquirers or direct to “merchants”?
- How much money does PlastiQ need to finance its next five years of operations (see assignment below)?

*Required Reading:*

- PlastiQ (HBS 9-813-125)

*Assignment:*

- Using the information in the case and the supplemental materials available on V2, develop a five-year financial forecast for PlastiQ. Please submit your spreadsheet to V2 before the beginning of class.

## **September 16 (Tuesday):** Building a financial model III

Project team models (Top three teams pitch, 5 minutes each)

Panel: “Capital planning across sectors”

## ***Part 2: Fundraising***

### **September 18 (Thursday):** Fundraising I

Lecture and discussion

- Sources of capital
- Understanding cap tables
- Economic implications of various forms of financing and deal terms
  - Debt versus equity
  - Preferred shares versus common shares
  - Cumulative versus non-cumulative dividends
  - Participating preferred investments
- Introduction to financial waterfalls

*Required Reading:*

- Feld & Mendelson, Chapters 3-4
- Metrick & Yasuda, “Preferred stock,” Chapter 9 of *Venture Capital and the Finance of Innovation*

**September 23 (Tuesday):** Using and understanding financial waterfalls

*Assignment:*

- Answer the questions posted in the Problem Set on V2. Please submit your completed Problem Set to V2 before the beginning of class.

**September 25 (Thursday):** Early, early stage financing

Project team initial funding (Four teams pitch, 6 minutes each)

Lecture and discussion

- Pros and cons of crowdfunding
- Pros and cons of grants
- Pros and cons of pre-sales
- Pros and cons of convertible debt
- Convertible debt terms and structure
- Understanding long-run implications of convertible debt

Panel: “Crowdfunding and convertible notes in the wild”

*Required Readings:*

- Feld & Mendelson, Chapter 8
- Mollick, Ethan (2014). “The dynamics of crowdfunding: An exploratory study.” *Journal of Business Venturing*, 29: 1-16
- Ozerturk, Saltuk “Risk sharing, risk shifting and the role of convertible debt” Available at: <http://faculty/smu.edu/ozerturk/convertible.pdf>

**September 30 (Tuesday):** Venture capital (Series A through C)

Lecture and discussion

- Understanding venture capitalists
- Equity deal terms
  - Vesting
  - Option triggers
  - Option pools
  - Anti-dilution
  - Board seats
  - Information rights
  - Protective provisions
- Valuation

*Required Readings:*

- Feld & Mendelson, Chapters 5-6
- Gompers, Paul, and Josh Lerner (2001). "The venture capital revolution." *Journal of Economic Perspectives*, 15: 145-168
- Sorenson, Olav "Valuing new ventures"

*Recommended Reading:*

- Da Rin, Marco, Thomas Hellmann and Manju Puri (2011). "A survey of venture capital research." CentER Discussion Paper 2011-111, Tilburg: Finance

**October 2 (Thursday):** Negotiating a term sheet

Case discussion (please use the following questions as study guidance)

- Could Steve Pap have done anything better in his fundraising strategy for the "C" round?
- What are the key differences in the term sheets offered by the insider group versus by Ampersand?
- Who would you choose and why?

*Required Reading:*

- Endeca Technologies (HBS 9-802-141)
- Feld & Mendelson, Chapter 10

**October 7 (Tuesday):** Gaining liquidity

Case discussion (please use the following questions as study guidance)

- What makes Zappos special?
- Why does Amazon want to acquire Zappos?
- If you were Hsieh or Lin would you accept the offer or try to hold out for an IPO?

*Required Reading:*

- Zappos.com: Clothing, Customer Service, and Company Culture (HBS 9-610-015)
- Feld & Mendelson, Chapter 10

*Assignment:*

- Using the information in the case and the supplemental materials available on V2, determine who stands to gain what in the acquisition. Please submit your spreadsheet to V2 before the beginning of class.

**October 9 (Thursday): Fundraising II**

Project team models (Top three teams pitch, 6 minutes each)

Panel: "Equity financing: The good, the bad and the ugly"