

Entrepreneurial Finance

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Course Overview & Learning Objectives

“Entrepreneurial Finance” course is designed for students who are interested in gaining a broad understanding of the concepts and institutions involved in entrepreneurial finance (i.e., getting funding for a startup) and private equity markets (i.e., providing capital to startups by venture capitalists (VCs)). As such, the course provides a general overview of how to evaluate and finance a new, high-growth-potential venture over its life-cycle. The class covers how to break down the valuation problem of early-stage ideas, the sources of financing for young businesses, startup valuation methods, issues and strategies in venture fundraising, term sheets and how contract terms change over a business’s life-cycle, potential exit strategies, the inner-workings of private equity industry and the incentives of different players. For each topic, we first learn tools and frameworks, then apply them in case studies and problem sets as well as discuss them with guest speakers (investors and entrepreneurs). Although the class covers the differences between angel and VC investors and examine pre-series A financing contracts, this course will not cover angel investing in depth — it will focus more on VC financing in early- and later-stage companies as well as exits (M&A and IPOs). The class concludes with a group project that utilizes concepts learned throughout the semester: it involves putting together a pitch deck for a venture idea to be presented in front of venture investors. The goals of the course are:

1. Help students gain deeper understanding of finance over a venture life-cycle
 - Valuation framework for early-stage ideas
 - Financing options for startups
 - Valuation methods by VCs
 - Term sheets: financial, control, and exit terms
 - Pitchdecks: content, structure, and pitching
2. Provide students with institutional background, major players, specialized vocabulary, and important facts about the venture capital/private equity industry
3. Examine current market developments in venture financing

Intended audience:

- Potential founders (or employees) of high-growth-potential young business (i.e., startups) that need external financing for growth
- Potential investors in startups to learn about financing and contracting issues in venture financing
- Students interested in learning institutional details of venture financing industry
- The course provides a **broad overview** of valuation and financing issues over a venture life-cycle. It is not intended to go deep into specific issues (e.g., sector investing, investing strategies, portfolio allocation in private equity)

Pre-Requisites & Connection to other classes

- Co-requisite: Capital Markets
- Foundations of VC (FVC): How FVC and Entrepreneurial Finance (EF) are similar/different:
 - FVC focuses on early-stage venture financing (pre-seed/seed/Series A), while EF focuses on financing rounds by VCs from Series A through later-stage financings and exits (IPOs, M&As). EF also covers institutional details on private equity (PE) and how VC fits in
 - FVC's final project is putting together a diligence memo on a potential investment from the investor perspective, while EF concludes with a group project on putting together a pitch deck for a venture idea to be presented in front of venture investors
- Corporate Finance: Differences in valuation and contracting for early-stage vs established companies
- Strategic Formulation: Competition issues in venture financing; interplay between finance and strategy
- Marketing: Market sizing and customer acquisition issues

Course Outline

To achieve the goals of the course, it will have 5 major modules: (1) introduction and valuation framework, (2) financing and valuation, (3) deal terms, (4) exits, (5) Private Equity (PE):

1. Introduction and valuation framework: 1/12 of the course
 - Introduction, requirements, and course overview
 - Lecture on conceptual framework on how to evaluate early-stage ideas
 - Case: Technical Data Corporation-Business Plan. Practice applying valuation framework
2. Financing and valuation in venture setting: 5/12 of the course
 - Lectures on financing options and valuation of startups
 - Guest speakers: entrepreneurs and VCs
 - Case: Circles. Examine financing options for an early-stage startup
 - Case: MuMate. Examine VC's valuation of an early-stage startup

- Project: put together a pitch deck and present in front of investors
3. Deal terms: 4/12 of the course
 - Lecture on deal terms and term sheets
 - Guest speakers: entrepreneurs and VCs
 - Case: Sunrise. Compare and contrast two term-sheets given to an early-stage startup
 - Case: MuMate. Negotiate term-sheets for an early-stage startup
 - Case: Metapath. Examine financing options of late-stage startup
 4. Exits: 1/12 of the course
 - Lectures on exit options
 - Guest speakers: entrepreneurs and VCs
 - Case: Metapath. Compare and contrast exit vs. financing options for a late-stage startup
 5. Private Equity (PE): 1/12 of the course
 - Lecture on institutional details of PE industry (e.g, GPs, LPs, incentives, fees, and exits) and how VC fits in
 - Guest speakers: PE investor on past, present and future of PE

Detailed Course Description

Finance studies valuation and the allocation of resources under uncertainty. Indeed, fundamental topics in finance (e.g., valuing cash flows, assessing the cost of capital, choosing among suppliers of funds, and aligning incentives for value maximization) are as important for entrepreneurial firms as for more established firms. However, the capital market for financing entrepreneurial activities, and private equity investing more generally, differs fundamentally from capital markets considered in standard corporate finance. New and growing firms are likely to have less information about their future prospects. Investments in private companies are also often illiquid and under-diversified, hence difficult decisions about financial contracting have to be made.

The primary objective of the course is to provide an understanding of the concepts and institutions involved in entrepreneurial finance (i.e., getting funding for a startup) and private equity markets (i.e., providing capital to startups by VCs). Since entrepreneurial finance and private equity investing are intrinsically linked, the course is purposefully designed to be broad and comprehensive. As an entrepreneur, you cannot negotiate effectively without understanding investors' motivations. As an investor, you cannot evaluate a potential investment opportunity without appreciating entrepreneur's perspective and incentives. Therefore, the course is designed for students who are potentially interested in either pursuing entrepreneurial activity or financing entrepreneurial ventures; although potential entrepreneurs might benefit a little bit more from the course.

The course uses a multipronged approach to the study of entrepreneurial finance and private equity. First, we will analyze principles of corporate finance, valuation, and control of firms, with an eye toward developing the tools and concepts of entrepreneurial financial management. Second, we will use cases on firms at different stages of their life cycle to illustrate how these tools and concepts may be applied in practice. We will analyze the cases from both the viewpoint of the entrepreneur and that

of the investors to understand their motivations, objectives, and considerations. Third, we will have a number of guest speakers who represent both entrepreneurs and investors. Guest speakers bring valuable lessons from their experiences and provide insights into current market conditions.

Although numbers and formulas will be an important part of the course, what matters the most is seeing the big picture and being able to apply what we learn in class into real world situations rather than memorizing how to plug numbers into formulas. At the end of the day, formulas may be forgotten and looked up if needed in the future, but the main ideas should stay with you forever.

Course Materials and Information

There is no required textbook for the course. Required article readings and cases will be made available to you in advance in CANVAS for each session. I will also distribute two problem sets (on valuation and deal terms). These problem sets are not graded. They are provided for students to practice using financial tools learned in the class. We will solve some of the problems in class and solutions will be posted on CANVAS.

Course Requirements and Grading

This course is designed to be a time-consuming and challenging course. This course also places a strong emphasis on discussion. The grading for the class is as follows:

Class Participation	1/3
Case Assignments	1/3
Class Project	1/3

Class Participation. I will evaluate your performance based both on the quality and the quantity of your comments, not on being present. I expect that each student can open a case discussion and also contribute to the ongoing class discussion. To facilitate class discussion and dynamics, please bring name cards to each session. **Students should expect to be cold-called to provide answers to class related questions.**

Case Assignments. The write-up can be done in study groups or solo. Each study group is required to submit via CANVAS a two-page, double-spaced memorandum analyzing the case. **The case write-ups are due 30 minutes before the class where we discuss the case.** Study groups will be formed during the first class. Once formed, groups will work together during the whole semester.

During our first class, we will analyze together our first case “Technical Data Corporation: Business Plan.” Please note, **you are not required to submit a case write-up for this case.** But you need to be ready to contribute to the case discussion. You can access the case link and guidance questions through “Assignments” tab on CANVAS.

For other cases, the two-page memorandum of recommendation and analysis should be addressed to the major decision maker(s) in the case. Think of you as consultants advising the decision maker: you should present your recommendations, the support for your position, and any other comments you believe relevant to resolving the situation. **Your memorandum should not be more than 2 pages long.** The write up should be in either Microsoft Word (or similar) or PDF format and

submitted through CANVAS (they can be emailed to your TA or me in case you have difficulties submitting through CANVAS). You may attach related numerical calculations to support your team's two-page write-up of analysis and recommendation. This supporting material should accompany the main two-page analysis as an Appendix and be in either Word (or similar) or PDF format. **Late submissions of the write-up will not be accepted.**

Guidance questions will be also provided with each case assigned. The guidance questions are designed to assist you in working through the case and preparing for class discussion. Clear answers will certainly assist in developing your recommendations to the decision maker. However, the guidance questions are just that: guidance toward important issues you should address in your study and class preparation. They are not intended to encompass nor constrain all of the issues that you may decide are important to the situation at hand. Here, you need to do your own "big picture" thinking and feel free to explore and raise issues beyond the guidance if you think they are important. Guidance questions rarely ask for a fully developed recommendation. The answers to them may lead to, but usually do not meet your core responsibility for the two-page assignment: a recommendation. You need to draw your own conclusions about the nature of that recommendation and support it with logical arguments and facts.

Class Project. Each study group is required to prepare a writeup and pitch in class to raise money for a startup. Project teams can be different from case teams. Teams will present in front of a panel of experienced investors, who evaluate and rank the teams' presentations. More details and guidance will be provided in class.

General Course Policies

- Computers and other electronic devices are not to be used, unless instructed by the professor
- Attendance at every class is considered important because a case- and discussion-oriented course relies on class participation for its success. Missing classes will automatically reduce your grade because participation is part of your grade
- If you miss a class, it will be your responsibility to figure out from CANVAS/your classmates what materials were covered and what assignments were made
- You are expected to abide by the University's Honor Code