

Venture Capital and the Finance of Innovation

FNCE 250

Spring 2008

PRELIMINARY SYLLABUS

(Final syllabus will be distributed on first day of class)

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Office hours: Friday 1:30 – 3:00 pm, and by appointment. Please email suggested times.

Course webcafé at <http://webcafe.wharton.upenn.edu/eRoom/fnce/vcfi>

Section 01: Tues/Thurs 9:00 – 10:20

Section 02: Tues/Thurs 10:30 – 11:50

Section 03: Tues/Thurs 1:30 – 2:50

SUMMARY

The course covers the finance of technological innovation, with an emphasis on the quantitative methods useful for venture capital investing. The primary audience for this course is finance majors interested in careers in venture capital or in R&D-intensive companies in health care or information technology. There are four homework assignments, one midterm, and a final.

GOALS FOR THIS COURSE

In order of importance:

1. To help students get a deeper understanding of finance.
2. To teach and analyze a rigorous framework for making investment decisions about high-technology projects.
3. To provide students with institutional background, specialized vocabulary, and important facts about the venture capital industry.

TEACHING ASSISTANTS

The teaching assistants are Benjamin Altman, Evan Feinberg, Louis Littman, Vasant Natarajan, and Michael Sall. Questions regarding the course material, especially those related to homework assignments and exams, should be submitted to the TAs via Webcafe. Instructions: _____. TAs will take turns answering questions on Webcafe. TAs may post questions and answers on Webcafe, but they will not post the names of the student who submitted the question.

HOW DOES THE COURSE COMPARE TO OTHERS?

The course will complement entrepreneurship finance courses offered by the management department. There will be some overlapped materials in the first half (where we learn the basics of the venture capital industry), but virtually no overlap in the second half of the semester (where we build on the basics).

READINGS

The required primary text for the course is *Venture Capital & the Finance of Innovation (VCFI)* (John Wiley and Sons) which is available in the bookstore. All materials handed out in class

will also be made available electronically on Webcafe during the course (except, of course, for copyrighted readings.)

GRADING

There are three components to the grading, for a total of 100 points:

- **Homeworks** (4 assignments for a total of 25 points total)
- **Midterm exam** (25 points): In-class midterm on ????
- **Final exam** (50 points): May 5th , 6:00 PM to 8:00 PM. This closed-book exam will cover material from the whole semester, including lectures, homework assignments, readings, and guest speakers. This exam is required. If you absolutely will not be able to take the exam on campus on May 5th, then please drop the class.

Classroom participation is not a component of the final grade.

I will not curve section by section, but rather across all three sections.

Re-grade policy: You may request a re-grade on any exam or assignment. Each re-grade request must be accompanied by a concise written explanation of the request and submitted to me within one week after I distribute graded exams or assignments. I will re-grade the whole exam, so your score can either increase or decrease as a result.

MISSING EXAMS OR ASSIGNMENTS

The only acceptable reason to miss assignments or exams is an illness or a family emergency. If this occurs, please contact your Wharton Division office and they will give me an “official” excuse. If this occurs on homework assignments, then I will give an extension. If it occurs for a midterm, then I will add the weight (25 points) to the final (total = 75 points). (You should try to avoid this, because the midterm will be easy and the final will be hard.) If you miss the final then you will take a makeup exam in _____.

HOMEWORKS

Homework assignments can be done individually or in teams of up to three (but no more than three). Students may form teams across sections. Working in teams is strongly encouraged but is not compulsory. If students work as a team, all members of the team will receive the same grade. Students working in teams are responsible for printing names of both students on the cover page of assignments.

Each assignment should be turned in electronically via Webcafe. Some instructions: TBD.

Here is an important message from the Webcafe Tech team: You are welcome to use the project folder feature of Webcafe, but please follow the security instructions and make sure that no students other than you and your teammate can access the folders you create. Otherwise, ***any updates to your work will not only be public but also will be notified to the whole class in nightly email notifications.***

Each homework assignment will be evaluated on a 10-point scale. Quality of the write-up will be factored into the grade, so poorly organized write-ups and excessively long write-ups will be penalized. For questions requiring calculations, please explicitly write out and explain your calculations in your write-ups whenever possible. Doing this, rather than merely copying the final numbers from your spreadsheets, has two benefits. First, it will help you prepare for

examinations, when you will need to rely only on calculators. Second, it will help us understand what you did and give you credit accordingly.

GUEST LECTURES

There will be two guest lectures. Material from these lectures may be on the final exam. If you cannot attend the guest lectures, you will be expected to watch a video of the lectures available on Wharton Video Network.

FREE LUNCH

Wharton pays for us to go out for nice lunches together. I will schedule several lunches throughout the semester. You can sign up for these on Webcafe by _____.

COURSE SCHEDULE , READINGS AND DUE DATES

Please note that the schedule is approximate; some chapters will take longer than a lesson and others will take a shorter time. Extensions will be granted in such cases. VCFI refers to the textbook *Venture Capital and the Finance of Innovation*. In addition, some handouts may be given out as supplemental readings in class.

	Date	Topic	Readings	Due dates
Part I: VC Basics	Jan. 15	Introduction	VCFI Ch. 1	
	Jan. 20	Who are the VC players?	VCFI Ch. 2	
	Jan. 22	Returns to VC investments	VCFI Ch. 3	
	Jan. 27	The cost of capital in VC	VCFI Ch. 4	
	Jan. 29	The best VCs	VCFI Ch. 5	
	Feb. 3	VC around the world	VCFI Ch. 6	
Part II: Total Valuation	Feb. 5	The analysis of VC investments	VCFI Ch. 7	
	Feb. 10	Term sheets	VCFI Ch. 8	
	Feb. 12	Preferred stock	VCFI Ch. 9	HW 1 due
	Feb. 17	The VC method	VCFI Ch. 10	
	Feb. 19	DCF analysis of growth companies	VCFI Ch. 11	
	Feb. 24	Comparables	VCFI Ch. 12	
Part III: Partial Valuation	Feb. 26	Options in VC	VCFI Ch. 13	
	TBD	Midterm review session		
	Mar. 3	NO LECTURE. Midterm at time and location TBD		
	Mar. 4 or 5	Guest speaker: Ted Schlein: partner, Kleiner Perkins; president, National Venture Capital Association. Time and location TBD		
	Mar. 5	NO LECTURE (guest speaker)		HW 2 due
	Mar. 6-16	Spring break		
	Mar. 17	The valuation of preferred stock	VCFI Ch. 14	
	Mar. 19	Later-round investments	VCFI Ch. 15	
	Mar. 24	Participating convertible preferred	VCFI Ch. 16	
	Mar. 25	Guest speaker: Serrill Neff, founding partner, Quaker BioVentures. 4:30 - 6:00 pm, location TBD		
	Mar. 26	NO LECTURE (guest speaker on Mar. 25)		
	Mar. 31	Implied valuation	VCFI Ch. 17	
	Apr. 2	Complex structures	VCFI Ch. 18	
Apr. 7	IPOs		HW3 due	
Part IV: The Finance of Innovation	Apr. 9	R&D finance	VCFI Ch. 19	
	Apr. 14	Monte Carlo simulation	VCFI Ch. 20	
	Apr. 16	Real options	VCFI Ch. 21	
		Binomial trees	VCFI Ch. 22	
	Apr. 23	The future of VC		HW 4 due
	Apr. 28	Final exam review session (time and location tbd)		
	TBD	Final exam review session		
	May 5	Final exam, 3-5pm (date and time still tentative)		