

## Topics in Private Equity

### contact information

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| Instructor:     | Sorin Maruster   |
| Class Time:     | Wednesday, 6:30pm to 9:30pm  |
| Email/Phone:    | smaruster@kpmg.com / 847-739-6089  |
| Course Website: | Canvas ( <a href="http://canvas.ucdavis.edu">http://canvas.ucdavis.edu</a> ) |

### introduction

The course plans to focus on the finance principles related to the risk and return of the private equity (PE) industry, valuation of PE target companies, the structuring of leveraged buyouts (LBOs), and the management of portfolio companies. Emphasis will be put on development of techniques that should be part of the tool kit of those interested in becoming professional investors and/or researchers in finance. This course is designed to primarily address the needs of advanced students in an MBA program.

### prerequisites

I will assume a good understanding of basic notions in finance: the time-value of money; return, risk and portfolio diversification; net present value; etc. These are materials covered in MGT/P/B 205 (core finance class). I will discuss some of these topics in class, but I expect you to refresh your memory on them at the very beginning of the quarter. Spending time in class to review topics that are covered by more basic courses would be inefficient and, most importantly, would take time away from new and more exciting topics. I assume that you are in this class to learn new material and get ready for the job market and I will teach the course accordingly.

Uncertainty is what makes the study of financial markets fascinating. If there were no uncertainty there would be very few job opportunities on Wall Street! Unfortunately, uncertainty also makes our task more difficult. The good news is that you will finally understand why you had to study statistics. No serious study of portfolio and risk management can be undertaken without solid knowledge of statistics. You should have covered these materials in MGT/P/B 203 (core statistics class). For this reason, I expect you to make a serious effort to refresh your memory on some essential concepts such as descriptive statistics, inference techniques and basic regression analysis.

A mathematical approach is necessary to avoid superficiality for many of the topics covered by this course. We will assume a good knowledge of mathematics, such as linear algebra and calculus. I am not a fan of technicalities per se, but I hope that by the end of the semester you will appreciate how the use of technical tools is important to make this a useful course. Computing skills with Microsoft Excel is required too.

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**the rules of the class** **Honor Code.** Beyond the common sense meaning of having an honorable conduct please, make sure that you: do not to seek (or accept) an unfair advantage over other students; truthfully represent fact and self at all times and respect the property and personal rights of all members of the UC Davis community

If you have questions about whether behavior is within the bounds of honorable behavior, please ask. When in doubt: just ask.

**Etiquette.** Some recommendations to make everybody, including yourself, as comfortable as possible during this quarter: the use of laptops in class is permitted and encourage; read ahead the handouts in order to participate in a creative way to the discussion (think of questions and possibly alternative answers/approaches to the issue discussed in class) and leaving then returning during class is allowed (and encouraged if you get too bored)

**Attendance.** Attendance, preparation, and participation are expected and all together represent an essential component of the learning experience in this course.

**assignments & exams** **Assignment.** There will be one group assignment handed out at the end of the first day of class.

**Exam.** There will be a take home Final Exam administered at the end of the course.

**grading** A total of 100% is allocated across the assignment (20%) and the final exam (80%). The final grade will be set according to UC Davis policy based on the weighted average scores as described above.

**course package** We will use (required) Andrew Metrick and Ayako Yasuda textbook: Venture Capital and the Finance of Innovation John Wiley & Sons; 2<sup>nd</sup> Edition (September 14, 2010)  
For easy reference:  
ISBN-10: 0470454709  
ISBN-13: 978-0470454701

Additional Lecture Notes, as needed, will be provided in class.

**course outline & schedule** The intended list of topics and the schedule of the quarter is provided below. Topics could be added/removed as the quarter starts.

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| Part I    | Overview of VC Industry: Participants, Returns and Cost of Capital   | Readings          |
|-----------|--|-------------------|
| (Day One) | We will provide an overview of the VC industry with discussion of history, major players, performance measurement and global patterns. A discussion of risk and return is included providing a key translation between the language of VC and the language of financial economics – a key duality in the whole course.   | Chapters 1 to 6   |
| Part II   | VC Valuation: “Total” Valuation  | Readings          |
| (Day One) | We will provide data and methods used in valuing high-growth / start-up companies by addressing the investment process used by VCs, the structure of VC transactions and the standard “total” valuation techniques used by VC.   | Chapters 7 to 12  |
| Part III  | VC Valuation: “Partial” Valuation  | Readings          |
| (Day Two) | We continue with the presentation and analysis of the VC valuation techniques by diving into special features of VC transactions. This part address the issues related to preferred stocks and other special features salient to VC complex capital structure. The key message of this part is shaping the analysis of preferred stocks as a portfolio of options and the extension of the standard Black0-Scholes model to the VC settings. | Chapters 13 to 18 |
| Part IV   | Achieving Liquidity: Exits, Distributions and Measuring VC Performance   | Readings          |
| (Day Two) | We end the course with an analysis of how the resulting benefits are distributed and the techniques used to model the expected returns and measuring the VC performance.   | Lecture Notes     |

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### The University of California, Davis

#### CODE OF ACADEMIC CONDUCT

##### Honesty, Fairness, Integrity

This Code of Academic Conduct exists to support high standards of behavior and to ensure fair evaluation of student learning. Students who violate the Code of Academic Conduct are subject to disciplinary sanctions that include censure, probation, suspension, deferred separation, or dismissal from the University of California. Unless specifically authorized by the instructor in writing, misconduct includes, but is not limited to the following:

➤ Academic misconduct on exams or other coursework

- Copying or attempting to copy from another student, allowing another student to copy, or collaborating with another student on an exam
- Displaying or using any unauthorized material such as notes, cheat-sheets, or electronic devices
- Looking at another student's exam
- Not following an instructor's directions regarding an exam
- Talking, texting or communicating during an exam
- Altering assignments or exams for re-grading purposes
- Bringing pre-written answers to an exam
- Having another person take an exam for you, or taking an exam for another student
- Theft of academic work
- Unexcused exit and re-entry during an exam period

➤ Plagiarism

- Taking credit for any work created by another person; work includes, but is not limited to books, articles, experimental methodology or results, compositions, images, lectures, computer programs, or internet postings
- Copying any work belonging to another person without indicating that the information is copied and properly citing the source of the work
- Using another person's presentation of ideas without putting such work in your own words or form and giving proper citation
- Creating false citations that do not correspond to the information you have used
- Plagiarizing one's own work

➤ Unauthorized collaboration

- Working together on graded coursework without permission of the instructor
- Working with another student beyond the limits set by the instructor
- Providing or obtaining unauthorized assistance on graded coursework

➤ Misuse of an instructor's course materials or the materials of others

- Posting or sharing any course materials of an instructor without the explicit written permission of that instructor
- Purchasing or copying assignments or solutions, to complete any portion of graded work, without the instructor's permission
- Unauthorized use of another student's work

➤ Lying or fraud

- Giving false excuses to obtain exceptions for deadlines, to postpone an exam, or for other reasons
- Forging signatures or submitting documents containing false information
- Making false statements regarding attendance at class sessions, requests for late drops, incomplete grades, or other reasons

➤ Intimidation or disruption

- Pressuring an instructor or teaching assistant to regrade work, change a final grade, or obtain an exception such as changing the date of an exam, extending a deadline, or granting an incomplete grade
- Refusing to leave an office when directed to do so
- Physically or verbally intimidating or threatening an instructor, teaching assistant or staff person, including yelling at them, invading personal space, or engaging in any form of harassment
- Repeatedly contacting or following an instructor, teaching assistant, or staff person when directed not to do so
- Misusing a classroom electronic forum by posting material unrelated to the course
- Interfering with an instructor's or teaching assistant's ability to teach a class, or interfering with other students' participation in a class by interrupting, physically causing a disruption, or excessive talking

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### Upholding the UC Davis Code of Academic Conduct

Students, faculty, and University administration all have a role in maintaining an honest and secure learning environment at UC Davis.

► The success of our Code of Academic Conduct depends largely on the degree that it is willingly supported by students.

Students:

- Are responsible to know what constitutes cheating. Ignorance is not an excuse.
- Are required to do their own work unless otherwise allowed by the instructor.
- Are encouraged to help prevent cheating by reminding others about this Code and hold each other accountable by reporting any form of suspected cheating to the University.
- Shall respect the copyright privileges of works produced by faculty, the University, and other copyright holders.
- Shall not threaten, intimidate, or pressure instructors or teaching assistants, or interfere with grading any coursework.
- Shall not disrupt classes or interfere with the teaching or learning environment.

► Faculty members and instructors are responsible for teaching courses and evaluating student work, and are governed by University of California and UC Davis policies and regulations. Regulation 550 of the Davis Division of the Academic Senate addresses academic misconduct. Faculty and instructors:

- Will provide students with a course outline containing information about the content of the course, amount and kind of work expected, examination and grading procedures and notice of the Code of Academic Conduct.
  - Should monitor examinations to help prevent academic misconduct.
  - Shall report all suspected cases of cheating and other misconduct to the Office of Student Support and Judicial Affairs (<http://ossja.ucdavis.edu/>).
- The University has delegated authority and responsibility to the Office of Student Support and Judicial Affairs (OSSJA) for the adjudication and resolution of academic misconduct cases. OSSJA maintains records of academic misconduct. The University:
- Shall educate faculty and students about the Code of Academic Conduct.
  - Shall provide physical settings such as classrooms and labs for examinations that minimize opportunities for academic misconduct.
  - Shall assist and train faculty and teaching assistants about how to prevent and address academic misconduct.

► Submitting Reports and Judicial Procedures:

- The Code of Academic Conduct governs academic conduct at UC Davis.
- Faculty have sole authority, as granted by the Academic Senate, to evaluate a student's academic performance and assign grades. If academic misconduct is admitted or established, instructors may assign a grade penalty no greater than "F" for the course in question. If a report is pending at the end of an academic term, instructors should assign a temporary grade of "Y" for the course until the report is resolved.
- A faculty/student panel, convened by OSSJA, shall conduct formal hearings to adjudicate contested cases of academic misconduct, unless the right to a formal hearing has been withdrawn. The right to a formal hearing may be withdrawn because of a prior finding of misconduct.
- Instructors and teaching assistants may direct a student to leave a class immediately if the student's behavior is disruptive.
- Instructors, teaching assistants, and staff persons should contact police (752-1230 or 911) if they feel physically threatened.