Course Syllabus

MBA 705-001 | Venture Capital and Private Equity Finance | Fall, 2013

Class Location and Meeting Time: Enterprise Hall Room 277, Fairfax Campus
Wednesday, 7:20 to 10:00 pm

Instructor: Robert Johnston
Office: 228 Enterprise Hall
Phone: (703) 993-1869 (office)
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FAX: (703) 993-1870 (office)
Office hours: Tuesday and Wednesday evenings 6:00 to 7:00 pm, and by appointment

Course Website:
At the suggestion of my students from prior semesters, the case supporting items and the as well as selected VC and PE equity valuation/return models are organized by class dates. Individual cases assignments will be posted on this site as well as some additional resources that may be helpful.

Course Prerequisites: Admission to the MBA program and completion of MBA 643.

Course Materials:
Cases:
Harvard Business School Publishing cases as noted in the course schedule and topics. These are available directly from HBS Publishing. The link below is to the HBS Publishing web site for the cases and related items I have selected for this course.
https://cb.hbsp.harvard.edu/cbmp/access/20150406

Simulation Model:
We are going to use a financial simulation of the private equity deal by Blackstone to acquire Celanese in 2003 as part of this course. This is available via the above link for the cases.

Background Supporting Notes/Explanations:
I have selected the following notes/explanation guides to provide some background and perspective for the course. These are also available via the above link for the cases.

- Greylock Partners, Felda Hardyman, Tom Nicholas, and , David Lane, HBS Publishing, 2013. (This “case” is an explanation of the founding and history of Greylock Partners as the first venture capital firm to adopt a replicating GP/LP business organization model. This has become the industry standard.)
- Risk and Reward in Venture Capital, William A Sahlam, HBS Publishing, 2010 (This note provides solid historical details regarding how major venture capital funds have actually performed for their investors.)
- A Note on Valuation in Venture Capital Deals, Thomas Hellman, Graduate School of Business, Stanford University, 2006. (This is a supporting note for the Spiffy Term case. It provides some examples that are similar to those to be employed in the Spiffy Term case.)
- A Note on Valuation in a Private Equity Setting, Josh Lerner and John Willinge, HBS Publishing, 2011. (This note includes details about various valuation approaches that are used by private equity investors—including venture capital investors. I have added an Excel file that provides mathematic links to the end of note exhibits as well more details on simulation and using an option valuation model to value a business.)
Course Objectives:
1. To provide MBA students an introduction to venture capital and private equity finance.
2. To help MBA students develop an understanding of the competing needs of various parties involved in venture capital and private finance transactions.
3. To provide an opportunity to apply financial valuation models to venture capital and private equity finance cases.

Course Organization and Approach:
A venture capital/private equity finance course might be approached from a finance perspective or from a management one. Both are certainly viable. As my area of expertise is finance, we will be using a finance emphasis for this course. I have organized it as a case course.

Course Schedule and Topics:

<table>
<thead>
<tr>
<th>Scheduled Date</th>
<th>Class Meeting</th>
<th>Specific Topic Coverage</th>
<th>Discussion Cases and Topic Area</th>
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<tbody>
<tr>
<td>Wednesday 28 August</td>
<td>#1</td>
<td>a. Course Introduction</td>
<td>Rationale for Private Investment and Venture Capital Firms&lt;br&gt;Yale University Investment Office: February 2011&lt;br&gt;Greylock Partners</td>
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<td></td>
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<td>b. Organization of VC and PE Firms</td>
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<td>c. Valuation of a Single VC Investment</td>
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<td>Wednesday 4 September</td>
<td>#2</td>
<td>a. Venture Capital Valuation Basics</td>
<td>Valuation Alternatives&lt;br&gt;A Note on Valuation in a Private Equity Setting&lt;br&gt;Risk and Reward in Venture Capital</td>
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<td>b. Valuation Methods in a Private Equity Setting</td>
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<td>c. Risk and Return</td>
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<td>Wednesday 11 September</td>
<td>#3</td>
<td>a. New Firm Venture Capital Valuation Illustration to Support the Spiffy Term Case</td>
<td>Preparation for a VC Funding Presentation&lt;br&gt;Zipcar: Refining the Business Model&lt;br&gt;Supporting Note for the Spiffy Term Case&lt;br&gt;A Note on Valuation in Venture Capital Deals</td>
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<td></td>
<td>b. Venture Capital Return Model with a Debt Component</td>
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<td>Wednesday 18 September</td>
<td>#4</td>
<td>a. Seller’s Call Option Valuation</td>
<td>Venture Capital Term Sheet Valuation&lt;br&gt;Spiffy Term, Inc</td>
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<td>b. Venture Capital Return Model with a Debt Component</td>
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<tr>
<td>Wednesday 25 September</td>
<td>#5</td>
<td>a. Subscriber Valuation Model</td>
<td>Venture Capital Investments&lt;br&gt;John M. Case Company&lt;br&gt;PlanetTran</td>
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<td>Wednesday 2 October</td>
<td>#6</td>
<td>a. Cap Tables</td>
<td>Debt Financing from a Venture Capital Firm&lt;br&gt;Western Technology Investment</td>
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<td>b. Returns on a Venture Capital Fund Portfolio</td>
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<td>Wednesday 9 October</td>
<td>#7</td>
<td>a. Cash Flow to Equity Valuation</td>
<td>Venture Capital: Subscriber Model Valuation&lt;br&gt;NetFlix.com, Inc.&lt;br&gt;Growing Up in China: The Financing of Baby Care Ltd</td>
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<td>Wednesday 16 October</td>
<td>#8</td>
<td>b. Illustration of Alternative Distributions to Partners</td>
<td>Owner/Founder Exit with Venture Capital&lt;br&gt;Spyder Active Sports—2004&lt;br&gt;Davis Boatworks</td>
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<td>Wednesday 23 October</td>
<td>#9</td>
<td>a. Leveraged Buy Outs</td>
<td>Private Equity: Mezzanine Finance Deals&lt;br&gt;BCI Growth III, May 1993&lt;br&gt;Elephant Bar Restaurant: Mezzanine Financing</td>
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<td>Wednesday 30 October</td>
<td>#10</td>
<td>a. Adjusted PV</td>
<td>Private Equity: Due Diligence for an Investment&lt;br&gt;Summit Partners—The Fleetcor Investment (A)&lt;br&gt;Summit Partners—The Fleetcor Investment (B)&lt;br&gt;Summit Partners—The Fleetcor Investment (C)</td>
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<td>Wednesday</td>
<td>#11</td>
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<td>Private Equity: Firm Valuation &amp; Bidding</td>
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The Use of Cases in this Course and Grades

Review and Preparation for a Case Discussion
You will need to have carefully reviewed each case prior to class. For each case, I will post on the course web site a set of suggested questions you should consider as you review the case. For some cases I had also included some key assumptions that you may find useful in organizing your review and analysis of the case. I will also post an outline of how I plan to lead the discussion of the case. Each of these is intended as a guide to help you prepare and know how I will approach leading our discussion. For some cases I will post an Excel template that may be helpful in structuring your analysis. My experience with discussion cases is that you will only learn from these if you do take the time to prepare in advance. For most cases, it is helpful as you review a case to try and gain an understanding of the nature of the business or industry that a firm is in. Most finance cases do focus upon one or more valuation elements. However, we will do several general cases in this course that do not require much in the way of quantitative analysis.

Case Assignments
You will each be given an assignment to prepare the analysis (see case analysis reports section below) for four cases. Each of these four case assignments will represent 20% of your final grade in the course. The remaining 20% will be for participation in the discussion of the cases as well as the Blackstone—Celanese simulation we will be doing. Just attending and listening is not sufficient. I do record a class participation mark for all students following each class. In addition to the students assigned the responsibility for a case, I do expect everyone will have carefully reviewed the case in advance of class and contribute to the class discussion.

Submission of Case Reports
Case analysis reports must be turned in no later than the class session when the case is presented and discussed in class. It is unfair to the other students in the class assigned a case to submit an assigned case report following the class discussion and presentation. There will be zero credit for late case analysis reports.

I will post on the course web site a listing of assigned cases by individual student.

Grading Norms and Weights
I review all the case reports on a given case prior to assigning case grades. Grading is relative with the “best” case report receiving the highest mark and the poorest report the lowest mark. I do use + and – grades in addition to letter grades. An A or A+ grade is only assigned if the report is of a quality I would send to a consulting client.

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<th>Item</th>
<th>Weight</th>
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<tr>
<td>First Case Assignment Report</td>
<td>20%</td>
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<tr>
<td>Second Case Assignment Report</td>
<td>20%</td>
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I have taught this course at George Mason eight times in the past. The class overall GPA’s were from 3.40 to 3.76.

Class Case Presentation
The analysis of these cases is much more effective if someone has carefully worked through the analysis and is prepared to lead everyone through this part of the case. I will designate one or more students to present their analysis of the case to the class. You should be prepared to take the class through your analysis. You may wish to present some of your analysis in Excel and/or Power Point if you feel this will help the rest of the class better understand how you have approached the problem. You must not miss the class session when you are assigned the responsibility to present your analysis to the class. If you should miss this session, you will receive zero credit for the case assignment.

Case Analysis Reports
All of these case analyses reports should be concise and similar in style and content to a report intended for a firm's senior management. The case analyses must be computer printed. I will grade these reports and return them to you. A suggested outline for a case analysis report follows:

1) Executive Summary (including your recommendation)
2) A Statement of the Problem(s) you see the firm or decision maker facing
3) Methodology or Techniques (those that you believe are best for this problem and that you recommend employing)
4) Data Requirement or Sources (those necessary to employ your recommended technique)
5) Key Assumptions (those you had to make to conduct your analysis)
6) Analysis
7) Conclusions and Concerns

As the case analysis reports are to be prepared as business reports, there is not a formal limit on the length of the reports. As a business report, they do need to be effectively prepared and certainly the length will vary with the complexity of the case.

I do have two specific requirements for these reports:
- Begin the report with an executive summary that includes your recommendation.
- Include page numbers.

These case analysis reports should be prepared on your own. You should not include the analysis of someone else in your case report.

Consultation Regarding a Case
You may discuss a case and your thoughts regarding how you might organize your analysis with other students in the class. However, you should not collaborate and/or share your work with other students or anyone else. The work you submit should be your own. Using someone else’s work in the analysis and preparation of your case report is not acceptable.

I am available to consult with you regarding your analysis of a specific case. This consultation is more effective if you have begun the analysis and I am able to see how you are approaching the problem. Some students prefer to come in with their analysis. Others email me their Excel file and after I have taken a look we discuss their analysis by telephone or email. If you email me regarding a case, I will do my best to respond within 24 hours except on weekends. During a weekend it may be 48 hours before I am able to get back to you. I will be unable to assist you with a case during the 24 hour period prior to it being due. Please be sure to include in your email the title of the case you are working on.
Other Matters

Attendance:
Class participation is an important part of the learning process and with a case based course it is vital. It is important that you attend class for two basic reasons. First, in the week or two leading up to a case assignment, we will be discussing and reviewing the issues, approaches, and methodologies that may be applicable to the case. Second, with a case approach, all students are expected to contribute to the discussion of the case issues. Unless you are in class you cannot contribute.

Software requirements:
You will need a recent, licensed version of Excel (2007, 2010, or 2013) for this course. If you are using a Mac, please make sure your version of Excel if fully supported. For most class sessions at least some of the presentation materials will be in Excel. Further, most of the detailed quantitative exhibits within the cases have been saved as Excel files and posted to the course website. You may download these directly. Some of the case assignments will be extraordinary time consuming if not impossible without Excel.

Crystal Ball Software Download:
Crystal Ball is a Monte Carlo simulation software package that works with Excel. Once you have constructed your Excel analysis of a finance problem, Crystal Ball allows you to quickly simulate the analysis in order to develop a distribution of possible outcomes. Crystal Ball is an Oracle product. As some of the cases for this course involve simulation, the School of Management has acquired licenses for the students enrolled in this course to be able to download and install this software on their personal laptops (or desktops). There is a section on the course Blackboard site with information, details and exhibits related to Crystal Ball.

Additional resources:
Bring your laptop to class. We will be working through the several valuation and return models during some of our class sessions. Being able to see the logic and links of an Excel models on your laptop does help in resolving a number of questions.

Honor Code:
I expect you to follow the University’s honor code as presented in the University’s publications. I consider it to be inappropriate and a violation of the University's honor code, to (i) use someone else’s work, including spreadsheet models, and submit them as your own or (ii) to use a purchased case solution.

15 July 2013