School of Business

Venture Capital and Private Financing of Startups, FNAN 431
Fall 2018 Session
Course Syllabus

COURSE TIMES AND LOCATIONS:
Section 001: MW 5:55 p.m. – 7:10 p.m.  Planetary Hall 124

Instructor:  Prof. Shelly L. Canterbury  
Office:  Enterprise Hall, Room 231  
Office Hours:  Walk in hours:  MW 4:30 – 5:30 p.m.  
Appointment only hours:  T 7:30 – 8:30 p.m
Email:  scanterb@gmu.edu  
Telephone:  703-993-1835 (however, the best way to reach me is through email)

Blackboard homepage:  http://myMason.gmu.edu

Course Description and Prerequisites:
FNAN 431 Venture Capital and Private Financing of Startups
This course focuses how venture capitalists arrange the financing for a company; what they look for in a business plan; how they value a business; and how they structure the terms of an agreement.  
Prerequisites:  B- or higher in FNAN 301

Course Materials:
1.  Raising Venture Capital for the Serious Entrepreneur, 1st Edition, Dermot Berkery, McGraw-Hill Irwin, 2008.  (This book may be purchased on Amazon for approximately $33.00 - $50.00.)
2.  Microsoft Excel and Word
3.  Students work on published cases (Darden, Harvard, Ivey, or instructor).  There will be a charge for cases used in the course.  The link to purchase cases is:  
   https://hbsp.harvard.edu/import/563719  
   Note:  some of the cases may not be used.  Do not purchase a case until instructed by me.
4.  Bloomberg terminal.  Bloomberg LP licenses computer software and services providing real-time financial data, news feeds, messages, and other market relevant data.  The complex analysis capabilities offered through Bloomberg will allow you to quickly access company and industry data, analyze multi-year performance, and provide competitive analysis with a consolidated set of data.  I will provide helpful instructions on Blackboard on how to create an account.  (See Appendix B for guidelines on use.)
5.  Oracle Crystal Ball simulation software application.  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.  The School of Business 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.

6. **Other resources:** In any profession, the classroom is the “tip of the iceberg” and students who wish to excel in their careers do more than just attend classes, take exams, and complete projects. Although it is far from complete, I have provided additional readings and sites under the “Resources” folder on Blackboard. In the first week of class, please register for free investment resources and read them daily.

7. **Supplemental Materials:** There may be situations where additional materials are needed. They will be provided either on Blackboard or other websites. In certain situations, there may be a small charge if the materials are provided through Harvard Business Publishers.

**Course Objectives for FNAN431 are:**

- Understand the basic principles of the venture capital method
- Develop strategies for raising capital
- Learn the methods of valuing the early-stage venture
- Develop techniques for negotiating the deal

**Course Outline/Schedule:**
The course outline/schedule is tentative and may be changed over the course of the semester. I will notify you of any changes via email and a revised schedule on Blackboard. It can be found at the end of the syllabus in Appendix A.

**Honor Code:**
You are encouraged to work with other students to better understand the material. It is permissible for you to establish study groups to review case approaches and inputs. However, any assigned Case Analysis Reports to be turned in are to be your individual work. Students are expected to know and follow the GMU Honor Code which can be found at [https://oai.gmu.edu/mason-honor-code/full-honor-code-document/](https://oai.gmu.edu/mason-honor-code/full-honor-code-document/). **All cheating in any form will result in an honor code violation accusation.** Please see Appendix D for the School of Business Recommendations for Honor Code Violations (Adopted by the faculty May 2012)

**University Office of Disability Services:**
If you have a disability or situation of which I need to be aware, please schedule a time to discuss this with me at the beginning of the semester. If any accommodations are to be made, disabilities must be documented with the Office of Disability Services (ODS). The mission of the ODS at George Mason University is to facilitate equal access for students with disabilities to university programs, events, and services. The ODS is located in the Student Union Building 1, Suite 2500, or consult their web site at [https://ds.gmu.edu/](https://ds.gmu.edu/)

**Communication:**
Please use your GMU email account that identifies you by name for course work and correspondence. The easiest way to communicate with me outside of class is via email at
The Use of Cases in the 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 may post on the course website a set of suggested questions you should consider as you review the case. For each of the cases, I may also include some key assumptions that you may find useful in organizing your review and analysis of the case. Each of these is intended as a guide to help you prepare and know how we will approach our discussion. For some cases I will post an Excel template that may be helpful in structuring your analysis. You will only learn from these cases if you 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 in which a firm is operating. Most (if not all) cases focus on one or more valuation element. **For cases strictly discussed in class (not formal case reports), you will be required to provide a one-page summary and recommendation and an attempt to solve the case on Excel. This will be 50% of your participation grade (the other 50% will be your active participation/discussion during class). These summaries will be completed individually (not in groups).**

Case Assignments:
You will be given an assignment to prepare the analysis (see case analysis reports section) for three cases. All formal case assignments are worth 30% of your final grade. The remaining 40% will be for participation in the discussion of the cases and classroom discussion, as well as a one-page summary of the case, including any required analysis (written and/or using Excel). Just attending and listening is not sufficient. I do record a class participation mark for all students following each class. I do expect everyone will have carefully reviewed the case and written a summary in advance of class and contribute to the class discussion.

Submission of Case Analysis 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.

*All case assignment reports will be completed by a group of three (3) students. Depending on final enrollment numbers, a team may have more members.*

Grading Norms and Weights:
I review all of 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.
Performance Evaluation:

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Percent of Total</th>
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</thead>
<tbody>
<tr>
<td>First Case Assignment Report</td>
<td>30%</td>
</tr>
<tr>
<td>Second Case Assignment Report</td>
<td>30%</td>
</tr>
<tr>
<td>Case Discussion and Participation</td>
<td>40%</td>
</tr>
</tbody>
</table>

Class Case Presentations:
The analysis of these cases is much more effective if you have carefully worked through the analysis and are prepared to lead everyone through this part of the case. I will assign students to present their analysis of the case to the class (panel discussions). You should be prepared to take the class through your summary and analysis. You may wish to present some of your analysis in Excel and/or PowerPoint 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 participation. Case presentations will not necessarily be related to “Case Assignment Reports”. They may be cases that we will cover in class only; however, you will be expected to have some understanding of the case and lead the discussion.

Case Analysis Reports:
All of the case analyses reports should be concise and similar in style and content to a report intended for a firm’s senior management. Case analysis reports will be completed and turned in via Blackboard under the specific case assignment. 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

There is no 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. There are two specific requirements for the reports; that is, 1) you must begin the report with an executive summary that includes your recommendation, and 2) you must include page numbers.
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 is unacceptable and will lead to an Honor Code Violation.

I am available to consult with you regarding your analysis of a specific case. This is more effective if you have begun the analysis and I am able to see how you are approaching the problem. Some students may prefer to come in with their analysis. Others may prefer emailing me their Excel file and after I have taken a look, we can discuss your 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 for this course. If you are using a Mac, please make sure your version of Excel is 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 extraordinarily 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 may involve simulation, the School of Business 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. See Appendix C for more information.

**Laptops:**
Bring your laptop to class. We will be working through models during some of our class sessions. Being able to see the logic and links of an Excel model 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. See Appendix D for suggested sanctions approved by the School of Business.

**Course Grading:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>A+</td>
<td>&gt;=97.5%</td>
<td>4.00</td>
</tr>
<tr>
<td>A</td>
<td>92.5% – 97.4%</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>89.5% – 92.4%</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>86.5% – 89.4%</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>82.5% – 86.4%</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>79.5% – 82.4%</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>76.5% – 79.4%</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>69.5% – 76.4%</td>
<td>2.00</td>
</tr>
<tr>
<td>D</td>
<td>59.5% - 69.4%</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>&lt;59.5%</td>
<td>0.00</td>
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</tbody>
</table>

The grade you receive is entirely your responsibility. Weighted average final number grades will result in the associated letter grades noted above. Rounding to the nearest 1/10th of 1% or one decimal place will occur (e.g., 79.6 = B-). You are responsible for tracking your grade progress on Blackboard.

Final grades will not be posted on Blackboard. You can access Patriot Web for final grades approximately 48 hours after the class. I do not negotiate exam grades nor final grades. Once posted, they are final.

**SUMMARY OF IMPORTANT DATES:**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>First day of classes</td>
<td>August 27</td>
</tr>
<tr>
<td>Labor Day, university closed</td>
<td>September 3</td>
</tr>
<tr>
<td>Last day to add classes—all individualized section forms due</td>
<td>September 4</td>
</tr>
<tr>
<td>Final Drop Deadline with no tuition penalty</td>
<td>September 9</td>
</tr>
<tr>
<td>Selective Withdrawal Period (undergraduate students only)</td>
<td>October 1 - October 28</td>
</tr>
<tr>
<td>Columbus Day recess (Monday classes/labs meet Tuesday. Tuesday classes do not meet this week)</td>
<td>October 8</td>
</tr>
<tr>
<td>Thanksgiving recess</td>
<td>November 21 – November 25</td>
</tr>
<tr>
<td>Last day of classes</td>
<td>December 8</td>
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</table>
School of Business Community Standards of Behavior:
The mission of the School of Business at George Mason University is to create and deliver high quality educational programs and research. Students, faculty, staff, and alumni that participate in these educational programs contribute to the well-being of society. High quality educational programs require an environment of trust and mutual respect, free expression and inquiry, and a commitment to truth, excellence, and lifelong learning. Students, program participants, faculty, staff, and alumni accept these principles when they join the School of Business community. In doing so, they agree to abide by the following Community Standards of Behavior:

- Respect for the rights, differences, and dignity of others
- Honesty and integrity in dealing with all members of the community
- Accountability for personal behavior

Integrity is an essential ingredient of a successful learning community. Ethical standards of behavior help promote a safe and productive community environment, and ensure every member the opportunity to pursue excellence.

The School of Business can and should be a living model of these behavioral standards. To this end, community members have a personal responsibility to integrate these standards into every aspect of their experience at the School of Business. Through our personal commitment to these Community Standards of Behavior, we can create an environment in which all can achieve their full potential.
Mason Diversity Statement

George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.

An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

The reflection of Mason’s commitment to diversity and inclusion goes beyond policies and procedures to focus on behavior at the individual, group and organizational level. The implementation of this commitment to diversity and inclusion is found in all settings, including individual work units and groups, student organizations and groups, and classroom settings; it is also found with the delivery of services and activities, including, but not limited to, curriculum, teaching, events, advising, research, service, and community outreach.

Acknowledging that the attainment of diversity and inclusion are dynamic and continuous processes, and that the larger societal setting has an evolving socio-cultural understanding of diversity and inclusion, Mason seeks to continuously improve its environment. To this end, the University promotes continuous monitoring and self-assessment regarding diversity. The aim is to incorporate diversity and inclusion within the philosophies and actions of the individual, group and organization, and to make improvements as needed.
Appendix A  
FNAN 431 COURSE OUTLINE - FALL 2018

The schedule below reflects expected class progress in course subject matter and is considered tentative.  
The schedule is subject to change in content and scope at the instructor’s discretion.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Date</th>
<th>Details</th>
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</table>
|         | August 27/29 | Syllabus, class schedule, intro to class  
David Miller - Center for Innovation & Entrepreneurship  
Developing a Financing Map |
| September 5 | Labor Day (no class)  
Alumni presentation – Fruit In Motion  
Getting to the First Stepping Stone |
| September 10/12 | The Unique Cash Flow and Risk Dynamics of Early-Stage Ventures |
| September 17/19 | Determining the Amount of Capital to Raise and What to Spend It On  
Presentation – Joshua Konowe, serial entrepreneur |
| September 24/26 | Review on Valuation Techniques (DCF and Mkt Comps) |
| October 1/3 | Introduction and application of Crystal Ball for decision making |
| October 9/10 | (Monday classes meet on Tuesday)  
Applying Crystal Ball for Valuation |
| October 15/17 | Getting Behind How Venture Capital Firms Think (speaker) |
| October 22/24 | Creating a Winning Business Plan  
Valuing Early-Stage Companies |
| October 29/31 | Valuing Early-Stage Companies  
Center for Innovation & Entrepreneurship (valuing a start up) - TBD |
| November 5/7 | First Case Write-up due  
Agreeing on a Term Sheet with a Venture Capitalist |
| November 12/14 | Terms for Splitting the Reward |
| November 19 | Allocating Control Between Founders/Management and Investors  
Thanksgiving Recess on Wednesday |
| November 26/28 | Aligning the Interests of Founders/Management and Investors |
| December 3/5 | Second Case Write-up due |

Please note that supporting cases will be included in a separate file.
To: FNAN 431 Class

From: Shelly Canterbury

Re: Bloomberg Terminals

In the fall of 2011, Bloomberg terminals were installed in Enterprise Hall, room 076 for use by undergraduate and graduate students enrolled in the School of Business.

Bloomberg provides a subscription to high-performance financial, regulatory, and market databases. Analysts and investors can access, crunch, analyze, and store information on companies, bonds, mortgages, currencies, etc., as well as monitor news releases, stock and bond markets, and any number of activities in the financial world.

Enterprise Hall is generally accessible throughout the day and evening (Monday – Sunday). If the equipment is damaged or missing, we will be able to monitor who had last use of the lab. The School of Business will prosecute students for damage or theft.

There will be assignments throughout the semester which will require the use of the Bloomberg terminal and databases. These assignments will be to help students complete their analysis in support of exams and homework.

There are some basic rules that I would like for you to follow so that we can continue the use of Bloomberg in the School of Business. Theft or misuse of the terminals could result in the School of Business NOT renewing our licenses.

1. Use only your access code to get into the Bloomberg terminal room and do not share your code with others.
2. The terminals are for Bloomberg use only.
3. Log out when you have finished using the system.
4. The terminals are for academic use only (in other words, you are not to do work for an employer).
5. Be respectful of the computers, keyboards, and monitors. If damaged, they will not be replaced.
6. Do not eat or drink while using the Bloomberg terminals.
7. Keep the Bloomberg lab clean (throw away your trash) and do not move the terminals or furniture.
8. Report misuse or theft to either the Dean’s office or me.
9. Use the calendar to schedule time on the terminal. If someone has signed up after you, please be respectful and sign off when your time is over.

These are simple rules to have access to one of the most powerful research tools in finance. Take advantage of this resource and opportunity. It is an invaluable tool for demonstrating your understanding of research and valuation to prospective employers.
To:        FNAN 431 Class, Fall 2018

From:     Shelly Canterbury

Re:       Crystal Ball Software Package Availability

Crystal Ball is a software package that runs on top of Excel and allows you to conduct simulations of possible outcomes based upon the basic Excel model you have developed this semester. Over the last year, we have been using Crystal Ball in our class to test the forecasting assumptions that we used to value our companies. Dr. Robert Johnston provided us with an extended license for the semester through an agreement with Oracle (Crystal Ball is an Oracle product).

Background: In 2008 it was reported that Crystal Ball was in use in 85% of the Fortune 500 companies in the U.S. and equally important that most of the top 50 ranked MBA programs were making it available to their students. While my interest is primarily in its finance applications, there are also many impressive applications for operations management, marketing, and managerial accounting. It is an invaluable tool for demonstrating your understanding of forecasting and valuation to prospective employers.

My experience in prior semesters has been that an introductory tutorial is an effective way to quickly get started actually using Crystal Ball. I will be introducing and providing a tutorial on Crystal Ball.

*Crystal Ball has been developed to run on a Windows based operating system. If you are using an Apple laptop and also have Windows installed, I understand that Crystal Ball works. If you do not have Windows installed, it will not work.*

I do have one important request. We have one user name and serial number for everyone. Our licensing agreement with Oracle is with the understanding that we use Crystal Ball with the students and faculty that we have paid for. Please do not forward this username and license code to others. Violation of this will cause Oracle to cancel their agreement with us, to the detriment of the university.

Thank you and I hope that you will discover the power of this application and its use in finance.

Instructions for Downloading Oracle Crystal Ball will be sent to you via email at a later date.
## Appendix D

### School of Business Recommendations for Honor Code Violations

*Adopted by the faculty May 2012*

#### UG-Non Freshman Students (including transfer students)

<table>
<thead>
<tr>
<th>Type of Violation</th>
<th>First Offense</th>
<th>Second Offense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plagiarism—failure to cite/attribute sources</td>
<td>An F in the class; multiple visits to the Writing Center required; and Academic Integrity Seminar Attendance</td>
<td>An F in the class; multiple visits to the Writing Center required; Academic Integrity Seminar Attendance; dismissal from the program; and possible suspension or expulsion</td>
</tr>
<tr>
<td>Plagiarism—representing someone else’s work as the student’s own</td>
<td>An F in the class; multiple visits to the Writing Center required; and Academic Integrity Seminar Attendance</td>
<td>An F in the class; multiple visits to the Writing Center required; Academic Integrity Seminar Attendance (at times of hearing and reenrollment if relevant); dismissal from the program; and possible suspension or expulsion</td>
</tr>
<tr>
<td>Cheating on an assignment, homework, class participation, or minor project</td>
<td>An F in the class; and Academic Integrity Seminar Attendance</td>
<td>Expulsion</td>
</tr>
<tr>
<td>Cheating on a major project, test, or exam</td>
<td>An F in the class; Academic Integrity Seminar Attendance; and at least one semester suspension</td>
<td>Expulsion</td>
</tr>
<tr>
<td>Egregious Violation [e.g., stealing an exam; submitting coursework from another class as original work; lying to an employer about academic performance]</td>
<td>Dismissal from the program; at least one year suspension; and attendance at Academic Integrity Seminar at the time of hearing and just prior to reenrollment</td>
<td>Expulsion</td>
</tr>
</tbody>
</table>