# UNIVERSITY OF PENNSYLVANIA The Wharton School

Corporate Valuation FNCE207 & FNCE728

Robert W. Holthausen Autumn, 2007

#### **DETAILED COURSE OUTLINE**

Office: Steinberg-Dietrich Hall 1332

Telephone Number: 215 898-7781

Office Hours: Monday: 3:30 pm - 4:50 pm (except 10/15 – Fall Break)

Wednesday: 2:20 pm - 3:50 pm (except 10/24 – Dedicated Interview Day & 11/21

-Thanksgiving Break)

Additional Hours by appointment.

The TAs and their office hours for this course will be announced in the next week.

EMAIL: <u>holthausen@wharton.upenn.edu</u>

I will answer email that can be answered with a simple reply (for example, "yes" or "no" or a few sentences). I will not answer emails that require long explanations. In those cases, I will ask you to call me or see me in my office. I generally answer

emails at least once per day.

## 1. Course Objectives.

The objective of this course is to teach basic firm and equity valuation methods and to become thoroughly familiar with the drivers of value. The approach combines both accounting and finance into a practical framework for valuing firms, debt and equity. Relatively little new finance theory is introduced in this course; rather the emphasis is on the practical application of finance and accounting to valuation.

Students with weak accounting and finance backgrounds will be at a disadvantage in this course. Working knowledge of EXCEL is also important. **Students who hoped to never see a financial statement again should not take this course.** 

The course utilizes chapter exercises, multiple cases (one utilizing sanitized data and the others using real data), a midterm and final exam. Prior students indicate that the workload for this course is demanding, as such, it is only recommended for those students who are interested in learning valuation techniques in depth. Students interested in broader topical coverage and a less detailed examination of valuation techniques should consider the corporate finance case course (discussed later).

This course is designed for students with <u>little or no practical work experience</u> in valuing companies. I do not believe that the "value added" from this course for students who have previous job related valuation experience is as high as for those with no relevant prior experience, but former students with prior work experience disagree with me on this issue. The course does presume you have a thorough grasp of corporate finance theory and accounting.

## 2. Minimal Prerequisites.

- A. Introductory Financial Accounting (note, some prior students have indicated that they thought intermediate accounting (ACCTG 201 and or ACCTG 202 OR ACCTG 742) was the real prerequisite).
- B. Introductory Corporate Finance.
- C. Introductory Statistics or Econometrics.
- D. A basic knowledge of EXCEL or some other spreadsheet package.

## Course Texts.

### A. Required Texts.

Richard Brealey, Stewart Myers and Franklin Allen, <u>Principles of Corporate Finance</u>, Eighth Edition, McGraw Hill, 2006. This is a text virtually all of you should own having taken Corporate Finance. **If you own a prior edition of this text, I would not bother purchasing the seventh edition.** If you own another corporate finance textbook (such as <u>Corporate Finance</u> by Ross, Westerfield and Jaffe), that will suffice as well, though you will have to figure out the relevant chapters for reading. This text is just background reading for concepts you should already know.

## B. Bulkpacks

The first bulkpack is currently available from Wharton Reprographics. The bulkpack material comprises the majority of the reading for the class. The bulkpack is material that Mark Zmijewski at the University of Chicago and I are developing for a textbook. The book is substantially revised relative to last year and the chapter sequence is completely different, so students should not try to use last year's bulkpack. Some of the material is from our old set of notes on valuation that have not yet been written into textbook form. **Students should read the relevant material before class.** Unless otherwise specified, students will be held responsible for all material in the bulkpack, whether covered in class or not. I will let you know when subsequent bulkpacks are available.

In addition, students will have to pay for class handouts. I anticipate approximately 200 pages of additional handouts, though there may be more depending on the material developed during the semester and whether material is handed out in class or is distributed electronically. Extra handouts will be on file in the filing cabinet outside my office door (Steinberg-Dietrich Hall 1332) if you miss class. Once those extra copies are gone, students will be responsible for borrowing the relevant material from another student in order to make a copy. Your bursar bill will reflect the actual cost of the handouts at the end of the semester at Wharton Reprographics standard per page rate.

## C. Web Cafe

Material for the cases will be available for student access via Web Café. The available material for the cases is the underlying data for the problems.

In addition, there will be copies of the powerpoint slides I will use during lectures available via Web Café as well. These will not be distributed in hard copy as they follow the notes in the bulkpack, but students wishing to have them prior to class, can print them out. The final version of these will be available by at least 8:00AM on the day of class. There will be two copies of the powerpoint slides (2 slides per page and 6 slides per page). If you are registered for the class, you can gain access to the web Café room for this course via mySPIKE (<a href="http://myspike.wharton.upenn.edu">http://myspike.wharton.upenn.edu</a>) or on the Web Café home page (<a href="http://webcafe.wharton.upenn.edu">http://webcafe.wharton.upenn.edu</a>). Both MBA students and undergraduates have access to mySpike.

Mark Zmijewski and I would appreciate it if you would report typos, errors and comments. Thus, there will be a place on Web Café where you can report typos, errors and passages that confused you. This area will be organized by chapter number and will be visible to everyone so you can see whether a typo has already been noted and whether we responded to some issue of clarification. We will comment on any item that requires clarification. Your feedback will help us rewrite our new material as we get closer to publication.

## Other Interesting but not Required Texts and Material.

Lawrence Revsine, Daniel Collins and W. Bruce Johnson, <u>Financial Reporting and Analysis</u> Third Edition, Prentice-Hall, 2004. This is a useful book to aid in understanding how accounting records various transactions, understanding the cash flow statement and how to analyze accounting statements. The course does not rely explicitly on this text so you should only purchase it if the book is a useful addition to your library. It is a good reference book which you might want to own if your intended career will require you to read and comprehend financial statements (e.g., equity analyst, valuation work, etc), or if you need help with the accounting aspects of the course. If you already own another book with the same topical coverage, it is not worth buying this one. It was chosen as it is the book of choice of the ACCT 742 instructors. Other accounting texts that you may already own may help you with the accounting aspects of the course as well.

McKinsey & Co., Tim Koller, Marc Goedhart and David Wessels, <u>Valuation: Measuring and Managing the Value of Companies</u>, Fourth Edition, John Wiley & Sons, 2005. This is a valuation book written from a practitioner's perspective.

For those who would like to learn useful Excel shortcuts and how to build standard investment banking models, you might want to purchase Knowledge Base Level I or Knowledge Base Level II from DealMaven, Inc. Knowledge Base Level I teaches Excel shortcuts and how to build a standard IBANK model. Knowledge Base Level II discusses LBOs and M&A and how to build an LBO model and an accretion/dilution analysis for an M&A deal. To purchase or learn more about either of these products, go to <a href="www.dealmaven.com/wharton">www.dealmaven.com/wharton</a>. Full disclosure — DealMaven was founded by a former Wharton student of mine. I helped him found the company and still serve as an advisor, retaining a small financial interest.

100%

## 4. Grading.

Total

Grading in the course will be based on the following criteria:

Darden Corporation - Part I	2%
Darden Corporation - Part II	7%
Darden Corporation - Part III	12%
Darden Corporation - Part IV	6%
Judson Green	5%
Midterm Examination	25%
Final Examination	35%
Class and YouSolve Participation	8%

I anticipate giving a combined undergraduate and MBA GPA for all of my students in Corporate Valuation of at least approximately a 3.0. MBA and undergraduate grades are typically pooled and then grade cutoffs are determined. If that procedure is followed, there is no guarantee that the above GPA will hold for MBAs or undergraduates separately. I reserve the right to pool or not pool the distributions depending on the observed data and what I believe is most fair.

PLEASE NOTE: Because of the substantial reorganization of the class this year, I reserve the right to change the assigned problems and to then make marginal changes in the point allocations.

UNDERGRADUATES PLEASE NOTE: The deadline for dropping from a finance course is September 17<sup>th</sup>. If a student drops after that date, a "W" will appear on their transcript.

#### A. Class and YouSolve Participation and Attendance

Class and YouSolve participation counts 8 percent of your total grade.

Some classes require you to be prepared for class discussion (discussion of assigned cases or problems), while other classes will be lecture format. During lectures, I encourage you to ask questions. Voluntary class participation is expected, however, I will cold call on individuals in class from time to time. If the class is not generally prepared, I reserve the right to change the grading criteria in the middle of the semester to weight class participation more heavily (retroactively).

The education experience for everyone suffers if participation or attendance for the class becomes a problem. If attendance lags, I reserve the right to change the grading criteria in the middle of the semester to weigh class participation more heavily and to weigh attendance in the grading scheme retroactively.

YouSolve is described more fully subsequently.

## B. Name Cards/Seating Charts

In order to get to know your names, I would like students to display name cards in class at all times. Please write your name in large, dark letters on the name card. If students display name cards, I will not require a seating chart. If name card usage falls, I will utilize a seating chart.

## C. Examinations.

The midterm examination will be administered on **Monday, October 29, 2007** from **6:00 pm - 8:00 pm** (rooms to be announced). The midterm exam will be "open book". You may bring the bulkpack, class notes, one accounting book, and the Brealey, Myers and Alllen textbook to the exam. **No other material is allowed.** The midterm exam covers Chapters 1-8, 10 Appendix A and the Supplement to Chapter 7. There will be no class on Monday, October 29 because of the midterm which is given that evening.

The final examination will be administered **Wednesday, December 12, 2007**, from **6:00 pm - 8:00 pm** during the common exam period set by the University. This exam will be "open book". You may bring the bulkpack, class notes, one accounting book and the Brealey, Myers and Allen textbook to the exam. **No other material is allowed.** The final examination is cumulative and covers all material covered in the course.

Copies of exams and suggested solutions from the last two years are included in the bulkpack. Please note, that the order of the course has been substantially revised this year. As a result, not all material on the midterm exam would be relevant for this year's midterm exam.

Please note the scheduling of the two exams. You are responsible for ensuring that you are available and on campus to take the exams. I will not FAX exams to remote locations. I will not permit anyone to take the exams at another time unless you are gravely ill, face a significant emergency or have an exam conflict. If your travel plans conflict with the date of an exam, you should change your travel plans now, or drop the course.

You must ensure that you are available for both examinations, October 29 and December 12. Please advise potential employers that you cannot schedule interviews that conflict with your exam schedule.

You are responsible for letting me know by September 17 of any *exam conflict* you have with either the midterm or final exam in my course.

## D. Chapter Exercises and Cases

Students will have to hand in the Judson Green Case and four different parts of the Darden Corporation Case throughout the semester. Late answers will not be accepted. Students must turn in their solutions to the cases prior to class, so you should bring an extra copy with you since we will be discussing the cases in class on the day they are due. Electronic versions of some of the raw data for the cases will be available in spreadsheets accessible via web Café. Some cases require electronic submission and the case assignments will alert you to that requirement.

Note that the chapter exercises and cases are marked on the outline as either D or D & S. If marked D, it means you must be prepared to discuss the chapter exercise though it will not be submitted. If marked D & S, you must be prepared to discuss the case and you must submit it at the beginning of the class.

You may work individually or in teams of up to four individuals on cases that are submitted. If you work as a team, all members of the team will receive the same grade on submitted work. No team can have more than four members (more on teams later).

The first page of a submitted case should indicate the case name, the names of the individuals participating in the grade and the section number of each student.

Answers should be clearly marked and final answers should be highlighted in some manner. Work must be legibly and accurately portrayed to receive credit.

Using solutions to exercises handed out in prior years or using the work of prior or current students who are not members of your group on submitted work is considered a violation of the codes of academic honesty. Moreover, it is likely your exam performance will suffer as these exercises are intended to help you prepare for exams.

## E. YouSolve

The purpose of YouSolve is to provide students a wealth of answers to potential questions and a resource on a particular issue where they can get questions answered. YouSolve is intended to create a community among the students taking Corporate Valuation from me this Fall.

Every student group will be assigned a chapter exercise or exercises that they must solve, as well as a due date for when they must upload their solution to an application created for this course called YouSolve. The YouSolve application will contain a restatement of the Chapter Exercise and any needed EXCEL file containing the raw data for the exercise. Another student group will be assigned to review the posted solution. All students taking Corporate Valuation from me this year will have access to the group's uploaded solution and any subsequent commentary or alternative solutions. If another student or group (perhaps the group reviewing the solution) has a question about the uploaded solution or believes the solution is wrong and posts an alternative solution, YouSolve will notify the original group of the question, comment or alternative solution. The original group should then respond to any questions or comments about their solution in a timely manner. In the case of alternative solutions having been posted, the original group will have to indicate which of the two solutions they believe is the best solution. Comments could also be about EXCEL tricks, even if the posted solution is correct.

Part of a student's participation grade will depend on the accuracy and timeliness of his/her groups' posted solution to their assigned exercises, how diligent their group was in responding to questions and comments and how often a student participated in commenting on other groups' solutions.

#### 5. Attendance and Class Etiquette

Students should attend the section of the class for which they are registered. Students are expected to attend class throughout the semester. In the case of a **rare conflict**, students can attend another of my sections. I teach the same class at 9:00, 10:30 and noon SHDH 1206 on Mondays and Wednesdays. If you attend a different section of the class, do not take a seat from a student registered for that class. You should notify me by 8:00 AM by email if you are planning to attend a different section.

Students are expected to arrive on time for class. Once in class, students should remain until the class is completed. Arrivals and departures during class time interfere with the educational process and are not fair to the other students or myself. If you choose to schedule an interview on-campus during class, do not come to class for part of the period, come to another section.

## 6. Workload

The subject matter of this course is quite technical and difficult. Students in past years have indicated that the workload for this course is very heavy. The average student spent approximately 15 hours per week on this course outside of class.

## 7. Relation to Corporate Finance Case Course

This course concentrates on valuation issues only and looks at valuation issues in detail. The Corporate Finance Case course examines a variety of issues such as working capital management, optimal capital structure, dividend signaling, capital budgeting and valuation. Thus, while the corporate finance case course deals with valuation issues, it does not look at them in as much detail. However, the corporate finance case course has a much broader topical coverage.

## 8. Academic Integrity

Students are expected to follow the rules of academic honesty in this class. This means that examinations are to be the work of the individual student using only the material permitted during the examination. Regarding submitted cases, the work should be the work of *only the team members* reported on the front of the case. Students should not in any way rely on solutions to cases distributed in prior years or on the work of prior students or current students that are not members of their team for the Judson Green Case and the Darden Corporation Case. This prohibition extends to prior homework, cases or projects that are directly relevant to the assignment being completed. When a case requires you to produce a forecasting or valuation model, the use of a forecasting or valuation model not created exclusively by the student team for this course is a violation of the codes of academic integrity. In other words, for all submitted cases, you must start with an excel spreadsheet which is at most populated with some raw data. If you have questions concerning this policy, please see me for a clarification before you use any questionable material. Obviously, the solutions posted to YouSolve are for the use and benefit of all students.

Please note that if you violate this policy, failing the class will constitute the minimum penalty, regardless of the degree of your violation.

## 9. Teams

Chapter exercises and the cases can be worked on individually or in teams of up to four students. Teams of five or more are not allowed (no exceptions). MBAs and undergraduates may not be on the same team. MBAs may form teams across sections. I encourage you to work in teams to maximize the learning experience. I will not become involved in any group problems. Teams may change composition during the course of the semester. If a set of teammates decides they can no longer work together, they are free to separate. If any member of the team cannot find another suitable team to join, he or she will have no choice but to hand in the rest of the cases individually. In choosing teammates, consider the skills your team will want to possess: accounting, finance and excel modeling expertise. Also make sure that your teammates' expectations for their performance in this course are consistent with your expectations for yourself.

Please sign up for a team no later than Monday, September 17. To sign up for a team – please do the following steps.

- In the webCafé room for the Corporate Valuation course, click on the Team Registration and Assignment Submission folder for your course (FNCE 207 for undergraduate students, FNCE 728 for MBA students).
- 2. Read the onscreen description there, and then click on Team Registration (Sign Up Here)
- 3. Read the onscreen instructions above the list of teams. These instructions describe how to sign up for a team, which is also covered in the next step. As described there, each student has to sign up

*individually for a team.* Since all assignments use teams of four, one student will register for the first available empty team, and then other teammates will need to register separately to join the teammate who first registered.

4. When you are ready to sign up for any of the available teams of four, check off the checkbox for your desired team and then click the join or change teams button. (If you need to switch teams or leave a team you already chose, you may click the join or change teams button without first selecting a checkbox.

## 10. Lunches

In an effort to get to know more of you personally, I am willing to take as few as three students and as many as six students to lunch at a nearby restaurant. Because I teach at noon on Mondays and Wednesdays and have other lunchtime commitments on Thursday and Friday, I am generally available only on Tuesdays at noon. There is a sign-up function for lunches in the Course Web Café site with the eight Tuesday dates I am available during the semester. If a group of you cannot meet for lunch on Tuesday at noon and wish to arrange an alternative (Monday at 1:30 perhaps), please email me and we'll see if we can schedule an alternative time.

## NOTE: ASSIGNMENTS AND DATES ARE SUBJECT TO CHANGE

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Class #	Date	Topic	H & Z Chapter	Brealey & Myers Chapter	Assignment (D=Discussion & S=Submission)
1	September 5, 2007	Introduction to Course and Valuation	1 & App. A		
2	September 10, 2007	Creating and Measuring Value	2	2-6	
3	September 12, 2007	Analyzing Financial Statements Usining Financial Ratios	3 & 4	29	
4	September 17, 2007	Free Cash Flow Basics and the SCF	5		
5	September 19, 2007	Darden Part I Competitive Assessment and Financial Analysis			D & S Darden Part I
6	September 24, 2007	Creating a Financial Model.	6		
7	September 26, 2007	Additional Forecasting and Free Cash Flow Measurement Issues	7		D 6.7
8	October 1, 2007	Additional Forecasting and Free Cash Flow Measurement Issues	7 & Supplement		D Supplement to Ch. 13, Prob. 1 and 2
9	October 3, 2007	The APV and WACC DCF Valuation Methods	8		
10	October 8, 2007	Darden Part II Historical Cash Flow Analysis			D & S Darden Part II
11	October 10, 2007	Excess Earnings Valuation Models	10		
12	October 15, 2007	NO CLASS - Fall Break			
13	October 17, 2007	NO CLASS - Dedicated Interview Day			
	October 22, 2007	Measuring Continuing Value	9		
	October 24, 2007	COMPREHENSIVE CASE Judson Green			D & S Judson Green
14	October 29, 2007	MIDTERM EXAM CHAPTERS 1-8, 10, Supp. to 7 & App. A From (No Class during Regular Class Hours)	n 6:00 to 8:00 PM		
15	October 31, 2007	Cost of Equity Capital	11	7-9	
16	November 5, 2007	Cost of Equity Capital	11 & 12		
17	November 7, 2007	Darden Part III Creating Darden's Finanical Forecasts			D & S - Darden Part III
18	November 12, 2007	Levering and Unlevering	14	14, 24 17-19	D 3 problems #'s to be announced
19	November 14, 2007	Cost of Debt and WACC and Special Issues	3 and Supplements	24-25 19	
20	November 19, 2007	Market Multiples	15 & 16		
21	November 21, 2007	Market Multiples	15 & 16		D Judson Green Market Multiples
		THANKSGIVING BREAK			
22	November 26, 2007	Leveraged Buyouts and LBO Models	17	33	
23	November 28, 2007	Multinational Valuation	No Reading	28	
24	December 3, 2007	Darden Part IV Cost of Capital and Valuation			D & S The Darden Case - Part IV
25	December 5, 2007	Mergers and Acquisitions and LBOs	No Reading	32	
26	December 12, 2007	COMPREHENSIVE FINAL EXAM (WEDNESDAY FROM 6:00 - 8:	00 PM)		