SYLLABUS

Course Objectives

1. **Overview.** This course is not about stock picking. Rather, we assume a large-scale transaction involving a significant (or complete) ownership stake in a firm. To carry out such an evaluation, one needs expertise in a wide range of subject matter. The aim in this course is for you to become competent in just one subject: using SEC filings (i.e., Annual Reports) to model the value of the firm or some specific claim on the firm. This is a substantial task. It would be nice if we could cover other important matters, such as forecasting product success (marketing), or operational efficiency (management), but it is simply impossible to do both (quantitative modeling as well as qualitative forecasting) in one semester. Thus, we restrict our attention to the more mechanical, ‘hard core’ subject of model building with the hope that the rest of your curriculum; your experiences; or your creative intuition helps fill the qualitative void. Come May I think that you will agree that the narrow subject of model building and reading actual financial statements is enough to keep busy.

2. That said, it should be obvious that this course places **heavy emphasis on accounting** – a very detailed, reality based (meaning, using actual 10-Ks) accounting. As it turns out, reading actual statements and reading a chapter from an accounting text are two very different things. One of the objectives of the course is to be sure that you are accustomed to that fact before leaving Wharton.

3. **Expectations.** Students with a casual interest in the subject of valuation (i.e., ‘stock pickers’) will undoubtedly find this course far too technical and detailed for their liking. Thus, if you are looking to hone your skills in performing quick-sketch valuations heavy on story that make only passing reference to accounting disclosure, you should not take this course. This course only makes sense if you are planning a career that will daily involve serious (i.e., hundreds of millions of dollar) valuation exercises.

A related question: “Is this how they do it on Wall Street?” In many cases the answer is “yes,” but not always. Often investment banks only play an advisory role to a principal whose motive is largely strategic (e.g., Bernie Ebbers & WorldCom). In such instances, the transaction is typically insensitive to price, and the objective of the investment bank (as advisor) is an expedient valuation for the purpose of due diligence. For such a transaction, the level of detail that we go into might be overkill. However, two considerations should be made before converting “might” into “is.” First, your client may not be strictly focused on a strategic objective – they may actually be
concerned with investment returns. In that case, you would not want to come across as superficial and fluffy in your projections. Second, you might find yourself in a defensive position; in court, in front of a board, or during a pitch. If you cannot defend the substance of your analysis, you are not likely to make a favorable impression. Finally, many of you may find yourself facing a client/boss who is personally putting hundreds of millions of dollars at risk. They probably want a sound analysis. Thus, while I don’t expect you to always go into the level of detail that we do in this course later, ‘on the job,’ I do want you to have the ability to if called upon.

Course materials

*Custom Compilation:* “Recommended”
It is a blue, large, paperback called “Equity Valuation” with my name on it. I didn’t do anything other than slap together a bunch of excerpts from several valuation texts and manuscripts. Just “for your reference.”

*Occasional reference to:*

*Handouts:*
There will be handouts throughout the course: overheads and supporting documents for the lectures; assignments; additional reference material; etc. The cost of these handouts will be billed directly to your bursar account at the standard Wharton-Reprographics rate. If you miss class, or fail to pick up the handout, it is your responsibility to borrow and reproduce a copy from a fellow student. However, I will leave left-over copies in the boxes across from the Finance department reception desk, and they will generally be available on the website (see below).

*Bulkpacks:*
I don’t use one.

*Computer downloads:*
This is the dominant source of material for the class. Reference material (mostly financial statements, spreadsheet models, and return data) will be made available on
http://finance.wharton.upenn.edu/~edelen

Prerequisites

*Accounting:* Introductory Financial Accounting (subject to the disclaimer below)
*Finance:* Introductory Corporate Finance,
(Investments and/or Advanced Corporate Finance certainly helps).
*Statistics:* Introductory course through regression
It would be deceptive of me to suggest that a weak accounting background isn’t a disadvantage. Accounting is the language of financial statements. Obviously, the more you know the better off you are. There isn’t much I can do about that. Intermediate accounting (e.g., 742) is not a formal prerequisite, but be aware that you will either need to (1) have taken Intermediate, (2) be taking it now, or (3) spend a lot of time on your own supplementing your accounting knowledge.

Grading

1. Three segments make up your course grade: a valuation project and a couple of homeworks; a midterm; and an end-of-semester, individual, don’t-communicate-with-others case assignment (oh hell, let’s just say it: a take-home test). Each counts for a third of your grade. The valuation project involves Nextel Communications, Inc. (NXTL). The midterm, take-home test, and lectures involve NXTL as well as Whole Foods Market, Inc. (WFMI).

2. The take-home assignment is designed to take eight to ten hours, but you will have about ten days to do it. The subject matter will be spreadsheet modeling and multiple valuation. It is an **INDIVIDUAL** assignment. Any one caught working in groups, or communicating with an unauthorized party\(^1\) about the assignment, will be prosecuted to the fullest extent. It would not be the first such prosecution I have had experience with. There will be no retakes of this assignment. If you fail to hand it in, you will receive zero credit unless you have a valid excuse (serious illness with doctor’s note, death in the family, etc.), in which case the other course items fully account for your course grade. With a week to execute, don’t expect much flexibility here. In particular, a valid excuse means incapacitated for a week.

3. **Midterm Exam.** This exam will be *Wednesday evening, March 5, from 4:30 to 6:30*. It is closed book and will involve the financial statements of WFMI and/or NXTL. Regarding cheating, missed exams, etc., see the preceding point.

5. **Valuation project.** The valuation project is a comprehensive valuation of NXTL. Due dates are scattered throughout the semester as indicated on the schedule below. A separate handout describes the project in detail. This project is done in groups of no more than four. For those of you itching to ask (I know you’re out there!) let me clarify: five *is* more than four.

6. Regrades must be submitted with a typed memo providing a clear, complete and specific statement of the disagreement, no later than seven calendar days after the return of the exam or assignment. Any exam or assignment submitted for regrade will be completely reviewed and regraded to ensure that both favorable as well as unfavorable grading errors are corrected. Otherwise there exists a bias in the process that punishes students who choose not to resubmit.

\(^1\) Unless otherwise notified, only Professor Edelen and his designated FNCE 728 / FNCE 207 TA’s are authorized parties.
8. To be fair to those who adhere to assignment parameters, after the deadline for at-home assignments, the maximum allowable points will drop 10% per hour (from 100%). Late homework (due at the beginning of class) will not be accepted. If the homework is being discussed in class, make sure you bring an extra copy to follow along. Generally, I will be discussing homeworks the lecture after the due date.
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| 1   | 1/13 – 1/14 | Course overview  
- discuss syllabus & projects  
- review two basic approaches to valuation (DCF & multiples)  
- select groups | Syllabus;  
B&M ch. 2-6  
E ch 1 | Assignment 1:  
build a pro forma model of Barking Moon Productions, complete with valuation  
Due Monday, 1/27; 11:00 AM (all classes) |
| 2   | 1/15 – 1/16 | The DCF valuation framework  
- A direct discounting of equity cash flows  
- Miller & Modigliani – valuing the firm versus the equity claim  
- Review of WACC & APV | E ch 2, first ½  
HZ ch. 2  
B&M ch. 17-19 | Assignment 1:  
build a pro forma model of Barking Moon Productions, complete with valuation  
Due Monday, 1/27; 11:00 AM (all classes) |
| 3   | 1/20 – 1/21 | -- MLK day off -- | | |
| 4   | 1/22 – 1/23 | Projecting Free Cash Flows  
- Internal and external consistency  
- The statement of cash flows  
- From the Financial Statements to unlevered-firm free cash flows | E. ch. 3  
WSF ch. 3  
HZ ch. 5A | |
| 5   | 1/27 – 1/28 | WACC & APV  
- Basics and simple examples | E ch. 4  
HZ ch 6, 8 | |

### Basic Financial Statement Modeling

| Day | Date   | Subject matter                                                                 | References | |
|-----|--------|---------------------------------------------------------------------------------|------------|
| 6   | 1/29 – 1/30 | Structured financial-statement forecasts (set up WFMI)  
- Linking the statements and building up from a core to ensure internal consistency  
- T-account modeling to get it right, or know what you’re missing  
- Detailed reading of financial statements  
- ‘Placeholder’ (dummy) schedules | E ch 2, second ½  
HZ ch. 2  
B&M ch. 17-19 | |
| 7   | 2/3 – 2/4 |  | |
| 8   | 2/5 – 2/6 |  | |
| 9   | 2/10 – 2/11 |  | |
| 10  | 2/12 – 2/13 |  | |
| 11  | 2/17 – 2/18 |  | |

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1 Legend:  
E: Edelen Manuscript  
B&M: Brealey and Myers, 4th ed.;  
HZ: Holthausen and Zimjweski Manuscript;  
B+S: Benninga and Sarig;  
WSF: White, Sondhi and Fried 2nd ed.;  
D: Damodaran

2 All assignments are due at the beginning of class on the indicated day.
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| 2/19 – 2/20| **Discount rate estimation**                                        | **CAPM**  
• Theory  
• Regressions and beta | E ch 5  
HZ ch. 10  
B&M ch. 7-9  
Friday (2/21)  
Review Session: All things WFMI.  
This will be the LAST OPPORTUNITY for midterm review of WFMI material. (Q & A only) |
| 2/24 – 2/25| **Discount rate estimation: Implementation**                        | **using comps**  
• leverage | E ch 6  
Stage 1 of project due:  
Provide a financial statement model that reconciles the historical account  
Due Wednesday, 2/26; 11:00 AM (all classes) |
| 2/26 – 2/27| **NXTL Review:** Accounts and Basic Financial-statement Model        |                                                                 |
| 3/3 – 3/4 | **NXTL Review:** continued                                          |                                                                 |
| 3/5 – 3/6 | **Midterm**                                                          | **---- early evening ----**  
WFMI & NXTL modeling and accounting:  
DCF valuation framework;  
does not cover discount-rate estimation |
| 3/10 – 3/14| **SPRING BREAK**                                                     |                                                                 |
| 3/17 – 3/18| **WFM Modeling Examples –**                                         | **Cash Management**  
• Linking WFM Fixed Assets and Sales  
• Taxes | E ch. 8  
WSF ch. 14  
Stage 2 of project due:  
Provide an analysis of discount rates  
Due in class Monday, 3/24 Tuesday, 3/25) |
| 3/19 – 3/20|                                                                    |                                                                 |
| 3/24 – 3/25|                                                                    |                                                                 |
| 3/26 – 3/27|                                                                    |                                                                 |
| 21 | 3/31 – 4/1 | **Framework:** the logic and approach | E ch. 10  
WSF ch. 19;  
HZ ch. 9;  
B+S ch. 10 |
| 22 | 4/2 – 4/3 | **Evaluating performance metrics**  
- earnings and sales  
- book value and cash flow  
- matching the claim to the performance metric | D ch. 10, 11, 5;  
WSF ch. 19 |
| 23 | 4/7 – 4/8 | **WFM Multiples** |

### The Whole Enchilada

| 24 | 4/9 – 4/10 | **WFM Final Analysis**  
- Ratio analysis & model calibration | E ch. 9  
HZ ch. 6, 8  
CKM ch. 7  
B+S ch. 5, 7  
WSF ch. 4, 9 |
| 25 | 4/14 – 4/15 |  
- Multiples support  
- Valuation | Handout Individual Case (on Mon. 4/14) |
| 26 | 4/16 – 4/17 | **NXTL Debt-payback Model**  
Stage 3 of project due:  
*Complete model and Debt-payback model*  
Due Wednesday, 4/16; 11:00 AM (all classes) |
| 27 | 4/21 – 4/22 | **Slack**  
Stage 4 of project due:  
*Complete Report (add Multiples and Composite Analysis)*  
Due Wednesday, 4/23; 11:00 AM (all classes)  
Individual, written case (homework):  
Due FRIDAY @ 5 PM, 4/25 |
| 28 | 4/23 – 4/24 | **Final Individual Case** |
| 29 | 4/25 |  |  |