

UNIVERSITY OF PENNSYLVANIA
The Wharton School
FNCE 621
FINANCIAL ANALYSIS
COURSE SYLLABUS

Professor Alex Edmans

Fall 2007

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Lectures:

- Tuesdays and Thursdays, 9-10:20am, 10:30-11:50am, 1:30-2:50pm in JMHH 240
- Beginning Thursday, September 6 and ending Tuesday, October 23

Office Hours:

- Thursdays, 3:30-5pm and by appointment

Course Description

This course is intended for students with prior knowledge of financial analysis (either by coursework or by practical experience), or with strong analytical backgrounds. It assumes that students are familiar with the material covered in the pre-term preparation course (FNCE604). As a result, it is only available to those students who successfully passed the Finance Placement Exam at the end of the pre-term.

Together with FNCE604, this course forms the foundation for subsequent courses in corporate finance, corporate valuation, investments, and financial derivatives. Its purpose is to develop a framework for analyzing a firm's investment and financing decisions. The course will start where FNCE604 ends. More precisely, it will provide an introduction to capital budgeting techniques under uncertainty, asset valuation, the operation and efficiency of capital markets, the optimal capital structure of the firm, and options.

Since the emphasis is on the fundamental concepts underlying modern finance, the approach will be analytical and rigorous, and requires some familiarity with accounting, mathematical and statistical tools. Furthermore, the course will exploit the students' prior knowledge and/or quantitative backgrounds (as demonstrated in the Finance Placement Exam), and will cover all the topics of a typical semester-long finance introduction class in six weeks.¹

¹Of course, since FNCE604 has already covered about 30-35% of the material studied in a typical finance introduction class, the pace of FNCE621 will effectively be about 35-40% faster than that of FNCE601.

In order to cover everything in six weeks, the **course workload will be intense throughout** and students taking this course should be prepared for this. To keep things as manageable as possible, I have made the problem sets and cases optional (and solvable in teams), and the exams open-book.

Prerequisites

The prerequisite for this class is a satisfactory performance (as judged by the instructor) in the *Finance Placement Exam*, which is offered at the end of the pre-term. The typical candidates for passing this Finance Placement Exam are students with prior course or practical knowledge of financial analysis, and students with a strong analytical background (e.g., students with prior degrees in engineering, physics, mathematics, or statistics).

The course makes use of mathematical and statistical manipulations at the level taught in the pre-term courses in statistics (STAT603 and STAT611). We may also make very sporadic use of calculus, but knowledge of calculus is not at all necessary for this course. There is also a “statistics reminder” section in the bulk pack for the course (see “Course Material” section below). Students are expected to have taken a look at this section prior to the course’s first lecture. To facilitate this process, one or two statistics sessions will be held prior to the course’s first lecture. More information concerning these sessions will be e-mailed to the students prior to the start of the semester.

Course Material

Below are the required textbook and special study guide for the course (as well as for FNCE601). They can be obtained together at a discounted price at the Penn Bookstore (36th and Walnut):

Brealey, Richard A., Stewart C. Myers and Franklin Allen, *Principles of Corporate Finance*, 8th edition (McGraw-Hill, New York, 2005). (Referred to as BMA below).

Selected Solutions and Study Guide Chapters to accompany Brealey, Myers, and Allen’s Principles of Corporate Finance, 8th edition (McGraw-Hill, New York, 2005).

The latter is a special version of the study guide made for the course that also includes answers from the solutions manual for the end-of-chapter questions in BMA for Chapters 1-25. The price for buying the two together is only a few dollars more than the book itself and much cheaper than buying the book, study guide and solutions manual separately.

Although I will try to explicitly define every finance term used in the course, it is possible that some students will be unfamiliar with some of the terminology used in our discussions. To bridge these gaps (or, at the very least, to help in all your other finance courses at Wharton), I recommend the following “finance dictionary”:

Downes, John, and Jordan Elliot Goodman, *Dictionary of Finance and Investment Terms*, 7th edition (Barrons Educational Series, 2006).

Also required for the course is a bulk pack that is available from Wharton Reprographics (basement of SH-DH). It contains the lecture notes that will be presented in class, problem sets and their solutions, sample placement exams and their solutions, as well as some other useful material. If necessary, additional handouts will be either distributed in class or made available on WebCafé. A fee for the material distributed in class will be billed through the bursar's office.

Grading: Exams, Homeworks, and Case Report

The course grade will be based on one midterm exam, one final exam, four *optional* homeworks, and two *optional* case reports. Each homework will count for 5% of your final grade, and each case report will count for 10% of your final grade. Each homework and case report will count only if they improve your final grade. So, should you choose to hand in all four homeworks and both case reports, you can accumulate up to 40% of your final grade outside of exams. The rest of your final grade will consist of your midterm exam and final exam weighted equally. However, if your score in the final exam is better than your score in the midterm exam, your final exam will be given twice the weight of your midterm exam. This is to reward students who improve over the course, and to allow those who underperform in the midterm to still do well overall.

The exam schedule will be as follows:

- Midterm exam: Friday, September 28, 6-8pm (room to be confirmed)
- Final exam: Wednesday, October 24, 6-8pm (room to be confirmed)

The material for the final exam will *not* be cumulative, i.e., the final exam will only cover the second half of the course. Also, the material covered in FNCE604 will *not* be examined again in FNCE621. Of course, we will still need to use some of the tools developed in that course (e.g., annuity formulas, NPV rule, etc.). The exact material covered in each of the two exams will be announced in class. Both exams will be *open-book* exams, i.e., you can bring your lecture notes, your book(s), and any other material that you find useful.

The homeworks and case reports can be prepared in teams of up to *four* students.² For the homeworks to be graded, hard copies have to be handed in prior to 3pm on the due date, which you can find, along with the list of problems contained in those homeworks, in the following table:

²A team can consist of students from different sections of FNCE621.

	Due date	Problems
Homework #1	Tuesday, September 18	PS #5: 3, 4, 10 PS #6: 1, 7, 10
Homework #2	Tuesday, September 25	PS #7: 1, 4, 8 PS #8: 2, 4
Homework #3	Tuesday, October 9	PS #9: 1, 4, 6 PS #10: 1, 3, 6
Homework #4	Thursday, October 18	PS #11: 1, 2, 4 PS #12: 2, 3, 4, 5, 9

No extensions are available to the due dates and late assignments will be given a zero score (and thus not count towards your final grade). The two case reports will be about the same case, but will concentrate on different aspects of the problem. The first report is due by 3pm on Thursday, September 20 in hard copy. To be graded, the second report should be handed in at the beginning of class on Tuesday, October 16. At that point, two or three of the teams will be picked randomly to make a 20 minute presentation of their findings and recommendations. As such, students should prepare slides for that purpose. More details about the case, the length and format of the reports, as well as the presentation will be given in class.

Your letter grade (DS, HP, P, or NC) for the course will be based on your ranking in the course (curve), and on performances/scores that I consider reasonable.

Make-up Exams

I'm sorry to say that individual exceptions to the timing of these examinations cannot be made to accommodate travel schedules, etc., according to Wharton policy. If **extraordinary circumstances** prevent a student from attending an exam, it is his/her responsibility to notify the instructor *before* the exam. Interviews and job-related absences are not considered to be extraordinary circumstances, as per Wharton policy. In the case of illness, the instructor must be notified *before* the exam and a signed doctor's note must be provided as soon as possible.³

For the midterm exam, there will be no make-up. **At the discretion of the instructor**, the student may be granted authorization to be absent from the examination. Students who, for some reason, cannot attend the final exam will either be allowed to take the same exam early (upon signing an honor agreement that they will not disclose its contents), or a different exam later, depending on the circumstances. Again, this will only be considered for **extraordinary circumstances**, as judged by the instructor. Anyone who wishes to take the make-up exam later should be aware of the following:

- I will not hold any office hours after the regular final exam to cover the material for the course.

³Only a signed doctor's note is acceptable. A document stating that the student went to hospital, or a prescription, are not substitutes.

- The teaching assistants for the course are not required (nor paid) to offer any help to students after the regular final exam.
- In constructing the make-up exam, I will take into account the fact that students will get more preparation time.
- I will not prepare, print or distribute any additional course material prior to the make-up exam.

In short, students should consider asking to take the make-up final only in extreme situations.

Class Etiquette and Code of Conduct

Students should attend the section of the class for which they are registered. In case of an unavoidable conflict, students can attend another of my sections. I expect classroom conduct to be on a high level. Students are expected to arrive on time for class and 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. The same holds for leaving temporarily to get coffee or make a phone call, or doing other work during a lecture.

Please display your name cards in class all times so that I get to know you. Please choose your seat during the first week and use the same seat for the remainder of the course.

Although it should go without saying, I make clear that I expect you to adhere to the school's code of academic conduct (<http://www.vpul.upenn.edu/osl/acadint.html>). In particular, the use of past problem set solutions or past exams (except when distributed by the instructor) is expressly forbidden. Any violation of this code, such as cheating in any form, will be treated with severity and may lead to an automatic fail. I also photocopy a significant portion of the assignments that are turned in (including homework and tests). I will likely catch any regrade-related cheating as a result.

Regrading Policy

Regrade requests for the midterm exam must be made within one week after the graded exams are distributed back to students. Regrade requests for the final exam must be made before the end of the Fall semester. All such requests must be made in writing, and hard copies of the exam and the request must be delivered to the TAs. In making your requests, keep in mind that the whole exam is potentially subject to regrading, and points may be deducted if you are later found to have been over-marked for a question. Assuming grading errors are symmetric, the expected gain in points from a regrade is zero.

Web Café

The course site at Wharton WebCafé contains material essential for this class as well as most updated information and announcements for the course. WebCafé is the information center for the course. Please check the course site regularly.

Semester Deadlines

Students will be allowed to drop the course in favor of FNCE601 at any time prior to the final exam, which is scheduled to take place before the midterm exam in FNCE601. Fair arrangements will be made to transfer their homework grades from FNCE621 to FNCE601.

Preparing for Classes

On the first day of class, students are expected to be familiar with the material covered in the pre-term placement preparation course (FNCE604). **No time will be spent reviewing that material.** Students are also expected to have looked at the material contained in section I.4.1 of the bulk pack. To facilitate this process, one or two statistics sessions will be held prior to the course's first lecture. Announcements concerning these sessions will be made by e-mail.

The material for this course needs to be absorbed consistently. As the course progresses, students should work on the homework problems, as well as on the additional problems from the bulk pack and textbook that I will recommend. All these problems are *essential* for a full understanding of the material covered in the course. In fact, the two exams will systematically include questions that are very similar to the recommended problems.

Students are also encouraged to read in the BMA textbook the chapters/sections relevant to the material covered in class. To facilitate this process (and your planning), the lecture notes contain "checkpoints" that will guide you through the relevant readings and problems.

To reiterate, the workload of this course is high and students are expected to do a lot of practice problems and reading in their own time. This is necessary to cover a semester's worth of material in six weeks.

Teaching Assistants and Review Sessions

Some PhD and MBA students will be assisting me in this course. Their names, their office hours, as well as the schedule for the different sessions that they will be holding, will be announced shortly.

Calculators and Computers

You will definitely need a calculator for the course (and the two exams). Any calculator that has a x^y button will do. In fact, when constructing the exam, I will make sure that the people who do not have a fancy calculator are not at a disadvantage. If you do not have a calculator yet, consider buying a HP-17BII+, as it will probably be useful for other Wharton courses. Older equivalent models such as the HP-17BII or HP-19BII are acceptable. Other calculators such as the HP-10BII, HP-12C, TI-BAII or equivalents will put you at a disadvantage in exams. They do not allow you to enter formulas and the HP-12C is also slow. Neither laptop computers nor PalmPilots will not be allowed for the exams.

Course Outline

The material for this course essentially corresponds to chapters 4 (sections 4.2-4.5), 7-9 and 13-21 in the BMA textbook. Below is the sequence of topics that will be covered in class, along with the relevant chapters/sections in BMA. Note that the material covered in each lecture may vary from what is indicated in this schedule, depending on the speed at which we go through each topic.

I. Investment Decisions (Under Uncertainty)

- Pre-Term (sessions to be announced)
 - I.4.1 Statistics Reminder
- Thursday, September 6
 - I.4.2 Statistics and Stock Portfolios (Chapter 7)
- Tuesday, September 11
 - I.4.3 The Capital Asset Pricing Model (Chapter 8)
- Thursday, September 13
 - I.4.4 The Valuation of Stocks (Sections 4.2-4.5)
- Tuesday, September 18
 - I.5 Capital Budgeting Under Uncertainty (Chapter 9)
 - HW #1 due

II. Financing Decisions

- Thursday, September 20
 - II.1 Efficient Capital Markets: Theory and Evidence (Chapter 13)
 - Case #1 due
- Tuesday, September 25
 - II.2 An Overview of Long-Term Financing (Chapters 14 and 15)
 - HW #2 due
- Thursday, September 27
 - II.3 Dividend Policy (Chapter 16)

- Friday, September 28
 - Midterm Exam
- Tuesday, October 2
 - II.4 Debt Policy (Chapter 17-18)

III. The Interaction of Investment and Financing Decisions

- Thursday, October 4
 - III (Chapter 19)

IV Options

- Tuesday, October 9
 - IV.1.1 Understanding Options
 - HW #3 due
- Thursday, October 11
 - IV.1.2 Option Pricing
- Tuesday, October 16
 - Case Presentations
 - Case #2 due
 - Wrap-up
- Wednesday, October 24
 - Final Exam

About The Instructor

Alex Edmans joined the Wharton faculty in July 2007 as an Assistant Professor of Finance, upon completing his PhD in Financial Economics at the MIT Sloan School of Management. At MIT Sloan he was a Teaching Assistant for Core Finance for five semesters, and Options & Futures for a sixth. He was voted MIT Sloan Outstanding TA of the Year for 2004-5 and won the 2006-7 MIT Graduate Teaching Award. Prior to MIT he worked as an Investment Banking Analyst in Morgan Stanley's London offices for two years, and later rejoined Morgan Stanley as a Summer Associate in the New York Fixed Income Division. His main research interests are corporate finance and behavioral finance.

Disclaimer

This document represents my current plans for the course at the time of writing, but is subject to change. Any changes will be communicated promptly and clearly to the students.