

UNIVERSITY OF PENNSYLVANIA
The Wharton School
FNCE 621
ACCELERATED CORPORATE FINANCE
COURSE SYLLABUS

Professor Alex Edmans

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Office: 2433 SH-DH

Email: aedmans@wharton.upenn.edu

Web: <http://finance.wharton.upenn.edu/~aedmans> and webCafé

Lectures:

- Tuesdays and Thursdays, 9-10:20am and 10:30-11:50am in JMHH 240, 1:30-2:50pm in JMHH 260
- Beginning Thursday, September 4 and ending Tuesday, October 14

Office Hours:

- Tuesdays, 3-4pm 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, or waived the core by credentials. *This course is not suitable for students new to finance and with limited analytical backgrounds.*

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 and dividend policy 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 and lecture pace 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.

A special feature of this course is that in every class I include a 5-10 minute “break” where I talk about a real-world application of finance. Examples include trading strategies implemented by hedge funds (often inspired by new academic research), a client situation I encountered when at Morgan Stanley, or a recent case study or corporate scandal. The material in these breaks is supplemented by press articles or digestible academic papers that I post on webCafé. None of this material is examined, but I include this to show you how can use finance in your future careers. The “breaks” are only made possible because I go through the core material rapidly, hence the suitability of this course only for students with prior financial or analytical expertise. A sample list of real-life topics is included at the end of this document.

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*, 9th edition (McGraw-Hill, New York, 2008). (Referred to as BMA below).

Student Supplement to accompany Brealey, Myers, and Allen’s Principles of Corporate Finance, 9th edition (McGraw-Hill, New York, 2008).

The latter contains both the study guide made for the course plus the solutions manual for the end-of-chapter questions in BMA.

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 exams and their solutions, as well as some other useful material. If necessary, additional handouts will be made available on webCafé. I regret that I am unable to post the bulk pack on webCafé. The bulk pack is very comprehensive, and this was achieved by combining my own notes with lecture notes of some non-Wharton professors. They kindly provided their material to me on condition that it would not be distributed electronically.

The bulk pack contains more material than that which I intend to teach in class. It includes supplementary material that will not be examined such as institutional details and proof of equations, which you can read in your own time if it is of interest. It also contains additional exercises and examples that complement those that I will go through in class. Therefore, do not be alarmed if I skip some pages in class.

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: Thursday, September 25, 4:30-6:30pm. [room TBD]
- Final exam: Wednesday, October 22, 6-8pm [to be confirmed, and room TBD]

The midterm will cover all of the material up to and including section II.1 (Efficient Capital Markets). The material for the final exam will *not* be cumulative, i.e., the final exam will only cover the second half of the course, from Section II.3 (Dividend Policy) onwards. (Section

II.2 is institutional detail provided to help in your future careers, but not examined). 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. A team can consist of students from different sections of FNCE621, and you are free to change groups between each assignment. For the homeworks to be graded, hard copies have to be handed **in class** on the due date, which you can find, along with the list of problems contained in those homeworks, in the following table:

	Due date	Problems
Homework #1	Tuesday, September 16	PS #5: 3, 4, 10 PS #6: 1, 7, 10
Homework #2	Tuesday, September 23	PS #7: 1, 4, 8 PS #8: 2, 4
Homework #3	Tuesday, October 7	PS #9: 1, 4, 6 PS #10: 1, 3, 6
Homework #4	Thursday, October 16 (drop box outside office)	PS #11: 1, 2, 4 PS #12: 2, 3, 4, 5, 8

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 **in class** on Thursday, September 18 in hard copy. To be graded, the second report should be handed in **at the beginning of class** on Tuesday, October 14. At that point, two or three of the teams will be selected 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.

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 and I.4.2 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. **These problems are an integral part of the course and it is insufficient just to attend lectures for a full understanding**

of the material. In fact, the two exams will systematically include questions that are very similar to the recommended problems.

In particular, the problems are typically more difficult to the examples taught in class and you will sometimes need to think creatively and use your initiative to solve them. This is similar to real life - each client situation presents new challenges that you will not have seen before. The course is difficult, since I do not teach by recipe or algorithm, and so it is insufficient to plug numbers into formulas to do well. Instead, it aims to teach you to think intelligently, and understand the fundamental concepts beneath the formulas, so that you can apply your knowledge to any situation you are confronted with. As a consequence, the lectures focus on teaching you the intuition, combined with some examples, and you will need to supplement these by doing the problems in the bulk pack.

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.

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. ²

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.
- The teaching assistants for the course are not required (nor paid) to offer any help to students after the regular final exam.

²Only a signed doctor’s note is acceptable. A document stating that the student went to hospital, or a prescription, are not substitutes.

- 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.

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.

Class Etiquette and Code of Conduct

I do not grade attendance nor participation as I trust students to attend and contribute where appropriate. Particularly for an accelerated class, it is essential to (a) attend class to absorb the material, and (b) ask questions if anything in the lecture is unclear. *I am always happy to re-explain a concept if necessary; the pace of class is the students' responsibility.* Students should attend the section of the class for which they are registered. In the case of an unavoidable conflict, students can attend another of my sections without notifying me. In addition, students not registered for this course may attend without asking my permission first. Please display your name cards in class all times so that I can get to know you.

While I am flexible regarding the above, I expect classroom conduct to be on a high level. Students should 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. *It is not acceptable to use Blackberrys or send text messages during class, or to use laptop computers for any reason other than to take notes.*

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 ask my TAs to photocopy a significant portion of the assignments that are turned in (including homeworks and tests). I will likely catch any regrade-related cheating as a result.

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.

Teaching Assistants and Review Sessions

Four 2nd-year MBA students will be assisting me in this course. Their principal duties will be to hold office hours and review sessions, answer questions (by email and on webCafé), and grade problem sets, cases and exams. Their names and contact details are:

- Justin Irizarry (irizarry)
- Sanjeev Kapur (skapur)
- Patrick Sim (patsim)
- Patrick Sullivan (psulli)

Office Hours: MTW 3:30-5pm, Desk B in Finance Department (2nd floor of SH-DH).

WebCafé

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. *In particular, it is most efficient to ask questions (either on course material or on administrative items) on the Discussions section of webCafé rather than emailing the TAs and instructor.* This means that all students can read our answers, saving the same question being asked multiple times. It also likely leads to a faster response since any of us can respond to the question.

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 be allowed for the exams.

Student Feedback

I greatly appreciate student feedback during the course. Please feel free to email comments and suggestions to me. If you prefer your comments to be anonymous, please use the form

at <http://finance.wharton.upenn.edu/~aedmans/teaching.html>, although an email is preferred as I can then respond to your comments.

Course Outline

The material for this course essentially corresponds to chapters 5, 8-10 and 14-22 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. In italics are the “real-life” topics I intend to cover in class; these are particularly vulnerable to change (in part, depending on current events).

I. Investment Decisions (Under Uncertainty)

I.4 The Valuation of Risky Cash Flows

- Pre-Term
 - I.4.1 Statistics Reminder
 - I.4.2 Statistics and Stock Portfolios (Chapter 8)
- Thursday, September 4
 - I.4.3 The Capital Asset Pricing Model (Chapter 9)
 - *CAPM Client Situations*
- Tuesday, September 9
 - I.4.3 The Capital Asset Pricing Model cont'd (Chapter 9)
 - *The Equity Premium Puzzle*
- Thursday, September 11
 - I.4.4 The Valuation of Stocks (Chapter 5)
 - *Employee Satisfaction and Stock Returns*
- Tuesday, September 16
 - I.5 Capital Budgeting Under Uncertainty (Chapter 10)
 - HW #1 due
 - *Stakeholder Theory*

II. Financing Decisions

- Thursday, September 18
 - II.1 Efficient Capital Markets: Theory and Evidence (Chapter 14)

- Case #1 due
- *No real-world topic, this entire class is about the real world*
- Friday, September 19, 10am-12pm (room TBD)
 - TA mid-term review session
- In students' own time (not examined)
 - II.2 An Overview of Long-Term Financing (Chapters 15 and 16)
- Tuesday, September 23
 - II.3 Dividend Policy (Chapter 17)
 - HW #2 due
 - *How Investors Can Exploit Inefficient Markets*
- Thursday, September 25
 - II.4 Debt Policy (Chapter 18)
 - *How Managers Can Exploit Inefficient Markets*
 - Midterm Exam (4:30pm, room TBD)
- Tuesday, September 30
 - II.4 Debt Policy cont'd (Chapter 19)
 - *Carry Strategies and the Forward Premium Puzzle*

III. The Interaction of Investment and Financing Decisions

- Thursday, October 2
 - III (Chapter 20)
 - *Controversies in Executive Compensation*

IV. Options

- Tuesday, October 7
 - IV.1.1 Understanding Options (Chapter 21)
 - HW #3 due
 - *The Option Backdating Scandal*
- Thursday, October 9

- IV.1.2 Option Pricing (Chapter 22)
- *Forensic Finance and Other Corporate Scandals*
- Tuesday, October 14
 - Case Presentations
 - Wrap-up
 - Case #2 due
 - *Highly Caveated Career Advice*
- Thursday, October 16
 - HW #4 due. Please post in drop-box outside my office by 5pm
- Friday, October 17, 10am-12pm (room TBD)
 - TA final review session
- Wednesday, October 22
 - Final Exam (to be confirmed, and room TBD)

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.