

UNIVERSITY OF PENNSYLVANIA
The Wharton School
FNCE 604
FINANCIAL ANALYSIS (PRE-TERM)
COURSE SYLLABUS

Professor Alex Edmans

Summer 2007

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Lectures in 351 SH-DH:

- Friday, August 3, 10-11:45am, 2-3:45pm
- Monday, August 6, 10-11:45am, 2-3:45pm
- Tuesday, August 7, 10-11:45am, 2-3:45pm
- Wednesday, August 8, 10-11:45am, 2-3:45pm
- Tuesday, August 14, 10-11:45am, 2-3:45pm

Office Hours:

- Monday, August 6, 4:30-6pm
- Thursday, August 9, 3-4:30pm
- Tuesday, August 14, 4:30-6pm

Course Description

This pre-term course is intended for those students wishing to prepare for the *Placement Exam* to get into FNCE621. The FNCE621 course will fulfill the core requirement in financial analysis in half a semester, instead of the usual full semester course, FNCE601. Only the students with some prior knowledge of financial analysis (either by coursework or by practical experience), or with strong analytical backgrounds should consider taking this course and the Placement Exam.

Together, FNCE604 and FNCE621 form the foundation for subsequent courses in corporate finance, corporate valuation, investments, and financial derivatives. Their purpose is to develop a framework for analyzing a firm's investment and financing decisions. This course, FNCE604, will provide an introduction to present value and capital budgeting techniques under certainty. The FNCE621 course will start where FNCE604 stops, and will cover 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 in both FNCE604 and FNCE621 will be analytical and rigorous, and requires some familiarity with accounting, mathematical and statistical tools.

Prerequisites

Although there are no official prerequisites for FNCE604 and FNCE621, both courses will make 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, nor is it for the Placement Exam or FNCE621.

To give you an idea of the level of mathematics and statistics at which this course (and FNCE621) will be taught, the bulk pack (see “Course Material” section below) contains a “math/stat reminder” that you should take a look at early in the course. There will also be a “statistics reminder” section in the FNCE621 bulk pack, but you should keep in mind that we will not explicitly go over that section in class. Given that this material is covered in depth in the pre-term courses in statistics, this will allow us to concentrate on finance material.

Course Material

Below are the required textbook and special study guide for the course (as well as for FNCE621 and 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 my web page. A fee for the material distributed in class will be billed through the bursar's office.

Grading and Exam Schedule

As the course is only a preparatory course for the Placement Exam, it will not be graded. In fact, students are allowed to take the Placement Exam even if they choose not to take this course. The Placement Exam, which will allow students to place into FNCE621, will be offered on **Wednesday, August 15, from 7-9pm**. This will be an *open-book* exam. In addition to your notes and the textbook, a formula sheet will be provided, which will be distributed beforehand. The room(s) for the exam will be announced later.

About 120-160 students are usually admitted into FNCE621 after the Placement Exam. The purpose of the Placement Exam is simply to ensure that students will learn/review the material for the core course in financial analysis at the appropriate pace.¹ Together, FNCE604 and FNCE621 will cover the *same* material as in the regular-paced FNCE601.

Waiver Exam

Students are often confused about the difference between the *Placement Exam* and the *Waiver Exam*. The Placement Exam serves the role of placing students into the faster-paced FNCE621, instead of the normal-paced FNCE601. The Waiver Exam is used to waive the financial analysis core requirement altogether (i.e., waive both FNCE601 and FNCE621).

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 exams (except when distributed by the instructor) is expressly

¹This pace will be about 35-40% faster in FNCE621 vs. FNCE601 given the pre-term headstart. Also, a good approximation for the pace that will prevail in FNCE621 is the pace in FNCE604.

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. I will likely catch any regrade-related cheating as a result.

Preparing for Classes

The material for this course (and for FNCE621) needs to be absorbed consistently. As the course progresses, students should work on the problem sets contained in the bulk pack, and on the textbook problems that I will recommend. Even if these problems are not formally graded in FNCE604 (they will be in FNCE621), they are essential for a full understanding of the material covered in the course and to prepare for elective courses in finance.

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.

Teaching Assistants and Problem Solving Sessions

Some PhD and MBA students will be assisting me in this pre-term course. Their names will be announced later in the course. Their main task will be to hold office hours and two problem solving sessions, which are scheduled as follows:

- Thursday, August 9 (room and time TBD).
- Monday, August 13 (room and time TBD).

During these problem solving sessions, the teaching assistants will go over the solutions to the problem sets, and may clarify some of the lecture material. These sessions are optional but highly recommended.

Calculators and Computers

You will definitely need a calculator for the course (and the Placement Exam). 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 an HP-17BII, HP-19BII, or their subsequent models, as they will probably be useful for other Wharton courses. Neither laptop computers nor PalmPilots will not be allowed for the Placement Exam.

Frequently Asked Questions

Here are a few typical questions about the finance core requirement that students have upon arriving at Wharton in the Summer of their first year.

- Can I place into FNCE621 by credentials (i.e., without taking the Placement Exam)?

No. The only way to place into FNCE621 is to take the Placement Exam. No exception will be made, as the material covered in the Placement Exam is part of the core requirement, and has to be tested at some point.

- If I waive the finance core requirement by credentials, am I automatically enrolled in FNCE621?

No. You need to take the placement exam to officially enroll into FNCE621. This is required to ensure that all the students in FNCE621 have the exact same background.

- I have waived by credentials, am I also waived for FNCE621?

Yes. The waiver is for the core requirement, that is both FNCE601 and FNCE621.

- If I am sure that I will be taking FNCE601, is there any reason for me to attend the pre-term course (FNCE604)?

Since FNCE601 will start exactly where the pre-term course starts, the only reason why somebody would want to attend FNCE604 would be to get an overview of what FNCE601 will cover in the first month of the Fall semester. Otherwise, there is really no point.

- If I plan to waive by taking the waiver exam, should I also take the placement exam in case I am not allowed to waive?

The waiver exam consists of two parts. The first part is exactly the same as the placement exam, and will be graded for that purpose also. So, by default, you will be evaluated for placement into FNCE621 as well.

- I have waived by credentials, is it still a good idea to take the placement exam, and take FNCE621?

If you have waived by credentials, it is your duty to make sure that you are familiar with the material that is covered in the core course (chapters 1-9 and 13-19 of the BMA textbook). This can be done by simply refreshing your memory through reading the textbook (in a lot of cases, that will be enough), by auditing (sitting in) FNCE621 or FNCE601, or by taking FNCE621 or FNCE601 for credit. If you want to take FNCE621 for credit, you will have to take the placement exam. Otherwise (e.g., for auditing FNCE621), you don't need to take the placement exam. Keep in mind that you will not get any credit for auditing a course.

- Do FNCE621 and FNCE601 cover the same material? Are there any differences between the two courses?

The exact same material covered in FNCE601 is covered in the FNCE604/621 sequence. Both courses use the same textbook, by BMA (7th edition), and cover its chapters 1-9 and 13-20. The two courses use a different set of lecture notes, reflecting the fact that FNCE604/621 will proceed 35-40% faster than FNCE601. For example, the blackboard will be used less by the instructor in FNCE604/621 than it will be in

FNCE601; to compensate, transparencies will be used more in FNCE604/621. Finally, the problem sets and exams will be different to reflect the fact that the two courses are not synchronous, but will have about the same level of difficulty.

- If I start in FNCE621 but find it too fast, will it be possible for me to transfer into FNCE601? Will I be penalized for it?

Yes, you can transfer; no, you won't be penalized. Since FNCE621 will be ahead of FNCE601, we will make it easy to transfer back to the regular-paced course. In fact, this will be possible up until the last day of class in FNCE621, since no exam will have been administered in FNCE601 at that point. As far as other graded material (problem sets) is concerned, we will make sure that you are not penalized, either by transferring your problem set grades from FNCE621, or by assigning your average on the remaining FNCE601 problem sets to the earlier problem sets.

- If I start in FNCE601 but find it too slow, will it be possible for me to transfer into FNCE621?

No. Since FNCE621 will be ahead of FNCE601, we cannot allow students to transfer to the accelerated version of the core course in mid-semester.

- I have passed one or more exam(s) of the Chartered Financial Analyst (CFA) program. Can I use it/them towards waiving the core requirement in finance?

You cannot waive the core requirement just with CFA credits. Indeed, even though the CFA exams cover a wider range of topics than FNCE601/604/621 do, the topics that represent essential background to elective courses in finance at Wharton are not covered as rigorously as needed in these exams. However, students who apply to waive based on work experience credentials should definitely include their CFA credentials as part of their application.

Course Outline

The material for this course essentially corresponds to the first 6 chapters (except for sections 4.2-4.5) and one section of chapter 23 of 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 of the five lectures may vary from what is indicated in this schedule, depending on the speed at which we go through each topic.

I. Investment Decisions (Under Certainty)

- Friday, August 3
 - 0 Introduction (Chapter 1)
 - I.1.1 Compounding and Discounting – Constant Interest Rate (Section 2.1 and Chapter 3)

- Monday, August 6
 - I.1.2 Term Structure: A First Look (Section 23.2)
 - I.2 The Valuation of Safe Cash Flows: Pricing Bonds (Section 4.1)
- Tuesday, August 7
 - I.3.1 The NPV Rule: Theoretical Foundations (Chapter 2)
- Wednesday, August 8
 - I.3.2 Using the NPV Rule for Capital Budgeting (Chapter 6)
- Tuesday, August 14
 - I.3.3 Alternatives to the NPV Investment Rule (Chapter 5)
- Wednesday, August 15
 - Placement 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.