#### UNIVERSITY OF PENNSYLVANIA The Wharton School

#### FNCE 604 ACCELERATED CORPORATE FINANCE (PRE-TERM) 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 in 351 SH-DH:

- Friday, August 1, 10am-12pm, 2-4pm
- Monday, August 4, 10am-12pm, 2-4pm
- Tuesday, August 5, 10am-12pm, 2-4pm
- Thursday, August 7, 10am-12pm, 2-4pm
- Tuesday, August 12, 10am-12pm, 1-3pm

Office Hours:

- Monday, August 4, 4-5:30pm
- Thursday, August 7, 4-5:30pm
- Tuesday, August 12, 3-4:30pm

#### **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 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. *This course is not suitable for students new to finance and with limited analytical backgrounds*.

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 and dividend policy 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.

In order to cover everything in a condensed time period, the **course workload and lecture pace will be intense throughout** and students taking this course should be prepared for this.<sup>1</sup>

A special feature of this course (and FNCE621) 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

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

<sup>&</sup>lt;sup>1</sup>This 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.

Selected Solutions and Study Guide Chapters to accompany Brealey, Myers, and Allen's Principles of Corporate Finance, 9th edition (McGraw-Hill, New York, 2008).

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. 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 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 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 13, from 7-10pm in JMHH F85. This will be an *open-book* exam. You can use your notes and the textbook.

About 120-160 students are usually admitted into FNCE621 after the Placement Exam. 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**

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 audit lectures 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.

# 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

Two PhD students (James Park, parkjam@wharton.upenn.edu and Rob Ready, rready@wharton.upenn.edu and one 2nd-year MBA student (Michelle Khundakar, mkhun@wharton.upenn.edu) will be assisting me in this course. Their main task will be to answer student questions and hold office hours and two problem solving sessions, which are scheduled as follows:

- Tuesday, August 5, 4:30-6pm, 2004 SH-DH: office hours
- Wednesday, August 6, 8-10am [room TBD]: problem solving session
- Friday, August 8, 4:30-6pm, 2004 SH-DH: office hours
- Monday, August 11, 8-10am, [room TBD]: problem solving session
- Wednesday, August 13, 10-11:30am, 2004 SH-DH: office hours
- Wednesday, August 13, 2-3:30pm, 2004 SH-DH: office hours

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. If you wish to attend, please email the TAs if there are particular topics that you would like covered. I recognize that the sessions clash with a Statistics Pre-Term class. Unfortunately, clashes are unavoidable during Pre-Term so I chose the slot with the fewest clashes. If you are unable to make the problem solving sessions, please attend the TAs' office hours.

### 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 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. 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 Placement Exam.

# 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.

# 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.

• I have waived the finance core requirement by credentials, or by passing the waiver exam, am I also waived for FNCE621?

Yes. The waiver is for the core requirement, that is both FNCE601 and FNCE621. If you wish, you may still take FNCE621. Waiving the core requirement is the only way you can place into FNCE621 without passing the Placement Exam.

• 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 a preview of what FNCE601 will cover in the first month of the Fall semester. I am happy for such students to attend, but stress that I will teach at a rapid pace which may be difficult to follow for students new to finance. Similarly, students who have already waived by credentials may sit in FNCE604. You do not need to obtain my permission if you wish to sit in FNCE604 without intending to take the Placement Exam.

• I have waived by credentials or by taking the waiver exam. Is it still a good idea to 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 1-10 and 14-22 of the BMA textbook). This can be done by simply refreshing your memory through reading the textbook (in a lot of cases, this will be enough), by auditing (sitting in) FNCE621 or FNCE601, or by taking FNCE621 or FNCE601 for credit. If you have waived by credentials, you do not need to take the placement exam to get into FNCE621. 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 (9th edition), and cover its chapters 1-10 and 14-22. 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 will not 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.

• How many credits do I get for taking FNCE621?

Since FNCE621 is only a half-semester course, it only costs 0.5 credit units (whereas FNCE601 costs a full credit). However, FNCE621 gives you one full credit unit towards attaining a finance major (as with FNCE601). Therefore, students passing FNCE621 only require 4 additional credit units to major in finance.

• Will I hinder my grade by taking FNCE621 because I will be "curved" against students with prior financial experience?

No. Even though FNCE601 and FNCE621 are graded on separate curves, the average grade given to FNCE621 students is somewhat higher, to reflect the greater financial experience of FNCE621 students. In accordance with Wharton grading policy, the weighted average across FNCE601 and FNCE621 combined can be no higher than 3.33, but the average FNCE621 grade is allowed to (and in typically does) exceed 3.33.

### Course Outline

The material for this course essentially corresponds to the first 7 chapters (except for chapter 5 and section 4.2) 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. 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 Certainty)

- Friday, August 1
  - -0 Introduction (Chapter 1 and Section 2.3)
  - I.1.1 Compounding and Discounting Constant Interest Rate (Section 2.1, Chapter 3, and Section 4.5)
  - Corporate Governance and Shareholder Returns
- Monday, August 4
  - I.1.2 Term Structure: A First Look (Sections 4.3-4.4)
  - I.2 The Valuation of Safe Cash Flows: Pricing Bonds (Section 4.1)
  - Investor Sentiment and Stock Returns
- Tuesday, August 5
  - I.3.1 The NPV Rule: Theoretical Foundations (Section 2.2)
  - The Limits of Arbitrage
- Thursday, August 8
  - I.3.2 Using the NPV Rule for Capital Budgeting (Chapter 7)
  - M&A: Success Stories and Cautionary Tales
- Tuesday, August 12
  - I.3.3 Alternatives to the NPV Investment Rule (Chapter 6)
  - Review
  - The Perils of Overconfidence
- Wednesday, August 13
  - Combined Placement/Waiver exam

### 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.