

UNIVERSITY OF PENNSYLVANIA
The Wharton School
FNCE 604
ACCELERATED CORPORATE FINANCE (PRE-TERM)
COURSE SYLLABUS

Professor Alex Edmans

Summer 2010

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Lectures, either in College Hall 200 (C) or JMHH G06 (J):

- Thursday, August 5, 10am-12pm (C), 2-4pm (C)
- Tuesday, August 10, 10am-12pm (C), 2-4pm (C)
- Thursday, August 12, 10am-12pm (J), 2-4pm (J)
- Tuesday, August 17, 10am-12pm (J), 1-3pm (J)
- Thursday, August 19, 10am-12pm (J), 1-3pm (J)

Office Hours in 2318 SH-DH:

- Thursday, August 12, 4-5:30pm
- Thursday, August 19, 3-4:30pm

Exam in JMHH G06, F85, F95

- Friday, August 20, 5-6:30pm (Placement Exam), 5-8pm (Waiver Exam)

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 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. The pace of FNCE604 is fast, and the pace of FNCE621 will be even faster. Please do not take this course unless you are fully comfortable with an accelerated pace and intense workload.**¹

¹This pace will be about 35-40% faster in FNCE621 vs. FNCE601 given the pre-term headstart.

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. In short, FNCE621 will cover all the topics of a typical semester-long finance introduction class in six weeks.

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.

Since the emphasis is on the fundamental concepts underlying modern finance, the approach will be analytical and rigorous, and requires familiarity with accounting, mathematical and statistical tools. This "academic" approach is necessary to provide you with a strong foundation that you can then apply to the (more practical) elective classes at Wharton. However, 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 how you can use finance in your future careers. 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 (STAT603, STAT608 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

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 proofs 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.

In addition, the following textbook and special study guide are highly recommended (they are also highly recommended for FNCE621, and required 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*, 10th edition (McGraw-Hill, New York, 2010). (Referred to as BMA below).

Student Supplement to accompany Brealey, Myers, and Allen's Principles of Corporate Finance, 10th edition (McGraw-Hill, New York, 2010).

The latter contains both the study guide made for the course plus the solutions manual for the end-of-chapter questions in BMA. Note that the book is now in its 10th edition, and the chapter designations and suggested questions in the lecture notes only apply to this new edition. The reason I designate the books as “highly recommended” rather than “required” is that students in the past have been able to do well in the course just by reading the lecture notes and doing the problem sets in the bulk pack, since they are comprehensive. The problems in the bulk pack are more complicated than those in BMA and a fairer indication of the level of the problems in the exam. The book is particularly useful for (a) simpler problems, to ease you into the more complex problems in the bulk pack, and (b) as an additional source for material that you may have found challenging when taught in class – since the lecture notes are slides, they are necessarily concise, and the book provides much more detailed explanations. The book is also useful for many finance electives at Wharton.

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 (Barron's Educational Series, 2006).

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 **Friday August 20, from 5-6:30pm. It will take place in JMHH G06, F85 or F95 depending on your last name; specific room assignments will be emailed before the exam.** 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.

The Placement Exam also constitutes the first half of the Waiver Exam. The second half of the Waiver Exam is from 6:30-8pm and covers the material taught in FNCE621. If you are aiming to waive the entire core, you must complete both parts of the exam. If you are only aiming to place into FNCE621, you can leave after the Placement Exam (i.e. the first half of the Waiver Exam). The two halves of the exam are graded separately. Thus, it is possible to fail the Waiver Exam overall but do sufficiently well in the first half to pass the Placement Exam and qualify for FNCE 621. Conversely, good performance in the second half of the Waiver Exam does not facilitate placement into FNCE 621.

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 core finance 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. If it is impossible to make any section on a given day, you may miss class without notifying me, and are trusted to catch up on the material in your own time. In addition, students not registered for this course may audit lectures without asking my permission first (if there is a shortage of seats, please give priority to registered students). Please display your name cards in class at 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. **During class it is not acceptable to use Blackberrys/iPhones or send text messages, leave temporarily to get coffee or make a call, do other work, or use laptop computers**

for any reason other than to take notes. I will call students out for phone or laptop usage.

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. Cheaters will be hauled before the Ethics Committee and may be given an automatic fail. I also ask my TAs to photocopy a significant portion of the exams and so am 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 though not formally graded in FNCE604 (they will be in FNCE621), **these problems are an integral part of the course and it is insufficient just to attend lectures for a full understanding of the material.** The Placement Exam will systematically include questions that are very similar to the recommended problems.

Since I will move at a fast pace, it is strongly recommended that you read up on the lecture notes ahead of time. You should have mastered all the material covered in previous classes, and looked at the sample problems for previous classes before each lecture. 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. They also contain “key takeaways” at the end of each section to facilitate revision.

Teaching Assistants and Problem Solving Sessions

One PhD student (James Park, parkjam@wharton.upenn.edu) and two 2nd-year MBA student (Ethan Fleegler, etfl@wharton.upenn.edu, and Jonathan Vogan, vogan@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:

- Monday, August 9, 4-5:30pm, JMHH G94: office hours (James)
- Tuesday, August 10, 4-5:30pm, JMHH G94: office hours (James)
- Wednesday, August 11, 4-5:30pm, JMHH G94: office hours (James)
- Saturday, August 14, 12-2pm, JMHH F85: problem solving session (James)
- Monday, August 16, 4-5:30pm, JMHH G94: office hours (Jonathan)
- Tuesday, August 17, 4-5:30pm, JMHH G94: office hours (Jonathan)

- Wednesday, August 18, 5-7pm, JMHH 365 [room may change]: problem solving session (Jonathan)
- Friday, August 20, 10-11:30am, JMHH G94: office hours (Ethan)
- Friday, August 20, 2-3:30pm, JMHH G94: office hours (Ethan)

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, and there are particular topics that you would like covered, please email the TAs. James will be teaching the 8/14 review session and Jonathan will be teaching the 8/18 session. I recognize that one session is on a Saturday. Unfortunately, your Pre-Term schedules are extremely packed during the week and so the weekend was the only way I could avoid any clashes. I have therefore arranged for the sessions to be taped, but of course it is better to attend if you are able to do so. If you're unable to make the problem solving sessions (e.g. due to being out of town) and have questions, please attend the TAs' office hours.

Dedicated, knowledgeable and helpful TAs can have a tremendous impact on a course. Since there is no opportunity to evaluate TAs with the official course evaluation form, I give students the opportunity to provide ratings and feedback on my TAs through an anonymous webCafé poll at the end of the course. In addition to providing motivation to the TAs, this allows students to thank or provide constructive feedback on them. For especially good TAs, positive comments and ratings can be helpful for their future careers.

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 handhelds will 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.

- Can I place directly into FNCE621 by credentials?

The only way you can place into FNCE621 without passing the Placement Exam is if one's credentials are strong enough to waive the entire core requirement. (See the Waiver Guide for the process of waiving by credentials.) There is no separate, lower credentials hurdle to allow a student to place directly into FNCE621. Students who are unable to waive the entire core must pass the Placement Exam. This is to ensure that they have all of the FNCE604 material at their fingertips, allowing me to teach at an accelerated pace in 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 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 1-9 and 13-21 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. In addition, it is necessary to do the assignments to get the most out of FNCE621; taking it for credit may help ensure you do so.

- Is there a course to help me prepare for the Waiver Exam?

Unfortunately not. FNCE604 only prepares you for the Placement Exam. To prepare for the Waiver Exam, you should review the other chapters of BMA, and do the sample Waiver Exam in the Waiver Guide.

- 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 (10th edition), and cover its chapters 1-9 and 13-21. The two courses use a different set of lecture notes, reflecting the fact that FNCE604/621 will proceed 35-40% faster than FNCE601. FNCE621 also tackles extra-curricular topics and aims to go into the material in greater depth than required for the assignments. 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. Since the problem sets and cases are different between the two classes, the grades from the FNCE621 assignments will not be transferred over. Instead, the weights on the missed FNCE601 assignments will be redistributed to the FNCE601 assignments that they do complete.

- 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 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. The waiver process requires 2 semester-long academic classes at the level of the BMA textbook within the last five years. If these classes fall just outside the 5-year window, a waiver *may* be granted if the student has worked in a pure finance job (e.g. investment banking, private equity) constantly since graduation. If you wish to use work experience to help waive the 5-year window, you may include your CFA credentials as part of the application. However, 2 academic classes are still required – work experience can only extend the time window, and cannot serve as a substitute for taking these classes.

- 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 5 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 typically does) exceed 3.33.

- Can I take FNCE621 and ACCT621 together?

You can, and many students do (and do so successfully). However, please be aware that your workload will be very intense since you will be taking two accelerated courses at the same time. In particular, the midterms of both exams are in week 3, which also features many other core assignments.² Please refer to syllabi of FNCE621, ACCT621 and all other courses you will be taking in Q1 to see the workload that you will have if you take both FNCE621 and ACCT621 together, and only register for both courses if you are happy with this workload. Of course, different students handle different workload pressures differently, so the optimal decision will vary from person to person. Also, if you waive MGEC621, that will lighten your workload, in particular by removing the MGEC621 midterm from week 3. One potentially important advantage of taking FNCE621 and ACCT621 together is that you will have Q2 much freer for recruiting.

Course Outline

The material for this course essentially corresponds to the first 6 chapters (except for chapter 4 and section 3-2) 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)

²Note that the core faculty meet every year to try to spread out the assignments across the different classes as evenly as possible. We are aware of the high workload in week 3 and it is indeed less packed than it used to be. However, there is unfortunately a limit to how much we can spread the assignments out – with a 6-week class, the midterm has to fall close to the 8th/9th class. Having it significantly earlier means there’s little to test you on; having it significantly later means there’s little to test you on for the final. It is useful to have the final test different material from the midterm to give students who do poorly in the midterm a chance to “recover” in the final.

- Thursday, August 8
 - 0 Introduction (Sections 1-3 and 1-4)
 - I.1.1 Compounding and Discounting – Constant Interest Rate (Chapter 2 and Section 3-5)
 - *Corporate Governance and Shareholder Returns*
- Tuesday, August 10
 - I.1.2 Term Structure (Sections 3-3 and 3-4)
 - I.2 The Valuation of Certain Cash Flows: Pricing Bonds (Section 3-1)
 - *Investor Sentiment and Stock Returns*
- Thursday, August 12
 - I.3.1 The NPV Rule: Theoretical Foundations (Section 5-1)
 - *The Limits of Arbitrage*
- Tuesday, August 17
 - I.3.2 Using the NPV Rule for Capital Budgeting (Chapter 6)
 - *Controversies in Executive Compensation*
- Thursday, August 19
 - I.3.3 Alternatives to the NPV Investment Rule (Chapter 5)
 - Review
 - *A Potential Solution to the Mortgage Crisis*
- Friday, August 20
 - 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.