

The Wharton School, University of Pennsylvania

REAL/FNCE 721 Real Estate Finance: Investment and Analysis

Spring 2011, JMHH F65

Professor Fernando Ferreira

Email: fferreir@wharton.upenn.edu

Introduction:

This course provides a broad introduction to real estate markets. Value of land, real estate prices, basic project evaluation, financing strategies, and capital markets issues related to real estate are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion encouraged. The course contains cases that help students evaluate the impact of more complex financing and capital markets tools used in real estate.

Office Hours:

From 1pm to 2pm on Tuesdays, at 1461 SH-DH, or by appointment. The complete schedule of TA office hours will be posted on Webcafe, and it will be updated periodically.

Textbook:

“Real Estate Finance & Investments: Risks and Opportunities”, second edition, by Peter Linneman, is the main reference material and I strongly advise you to purchase a copy. The book is a great introduction to the Real Estate topics that we will address in class. Linneman’s practical approach and wide coverage make the book an extremely useful resource. The book is available at the Penn Bookstore, and it is on reserve at the Lippincott Library. For the interested student, two additional textbooks are *“Commercial Real Estate Analysis and Investments”* by Geltner and Miller, and *“Real Estate Finance and Investments”* by Brueggman and Fisher. (Be aware that both these textbooks do not cover a number of topics discussed in this course).

Readings:

Supplemental readings will be posted on Webcafe during the semester, to give you a better understanding of the major issues and trends in the Real Estate industry. There is no bulkpack for this course.

Web Café:

I encourage you to become familiar with the course web page on Wharton’s Web Café. All class notes, supplemental readings, case materials, case groups, and TA office hours will be posted on the page.

Non-Wharton students will need to apply for a Wharton account in order to get access to the Web Café. Check out: https://accounts.wharton.upenn.edu/account_user/.

Grading:

The dates and times for all assignments are **final**, and must be strictly adhered to. Failure to complete any exam or hand in any case on time will result in zero points for that

exercise. The course grade ranges from 0 to 100 points and will be based on two midterm exams and three cases. There is no final exam in this course. While I will not explicitly record your attendance in the class, I reserve the right to use superb or sub-par class participation to help decide grades. Sub-par participation includes arriving late to or missing classes. This may contribute up to 10 percent of the final grade.

Exams:

Two midterm exams count for 65 points of the course grade (30 points for the first midterm and 35 points for the second midterm). The second midterm will not be inclusive of the material tested on the first midterm, but you are expected to be familiar with the basic concepts. You are allowed to use a financial calculator during the exam. You are also allowed to use one 8.5 x 11” note sheet (double-sided). Exams must be taken in class, in the same time and location of regular lectures. You must get a passing grade on each of the exams to pass the class.

Make-ups are not given without a Wharton Dean’s Office-approved excuse. For a medical excuse, you must have been admitted to student health or the hospital, and/or have a doctor’s note explaining that you were incapacitated. Finally, written re-grade requests are only accepted if submitted within seven days of my having returned the graded exams in class. Re-graded exams can change your grade up or down.

Cases:

The three cases constitute 35 points of your grade (10 points each for cases I and II, and 15 points for case III). Cases are group projects and require a variety of skills, from financial savvy to management. You will get to form your own group, and you are also allowed to form groups with students from other sections. Groups can have 2, 3, 4 or 5 members. No exceptions allowed.

You are responsible to make the team work. If you think a teammate is not working with good faith, or has neglected to finish her/his share of work, you must try hard to work it out within the group. If you still feel aggrieved after the case is done, send me an email with your name, the case, the offending group member, the nature of the problem, and steps you have taken to mitigate the problem. If two or more serious complaints are registered against you by your group members, 20% will be deducted from your grade.

Cases are due on “case discussion day” at the beginning of class. Bring a hardcopy of the case solution to class - no electronic copies will be accepted.

Each case will also have a strict page limit. Any pages that exceed the page limit will be removed and returned, unread and ungraded. Collaboration between groups is not allowed. Late cases will not be accepted nor will extensions be given without approval from Wharton Division’s Office. On “case discussion day,” attendance is mandatory. If you choose to miss a case discussion day, 10% will be deducted from your grade.

Class Participation:

Below is a set of concert rules that I expect you to follow, and that will count as part of the grade assigned to class participation:

- Arrive on time for class;
- At the end of the first week of classes, the seat you have selected will become your permanent assigned seat for the duration of the term;
- Always display name tents; always!

- No laptops, palmtops, BlackBerry's, PDAs, Ipods, etc. allowed – in-class notes shall be written the old-fashioned way, i.e., by hand;
- Turn off cell phones;
- Be prepared to be “cold-called” - I expect that you will be ready to answer every question in a manner that demonstrates serious thought on your part; you should also ask questions;
- Most importantly: Respect your fellow students' desire to learn.

Guest Lectures:

We will have three special guest lecturers during the semester - see course outline below for exact times, dates and location. The materials covered by our guests may be tested on the exams.

Financial Calculator:

You must have a financial or programmable calculator that can compute annuities, present values and IRR. You are responsible for knowing how to use these functions. If you do not know how to use these tools, it is your responsibility to obtain these skills. You will need the calculator to take the exams.

Course Outline

- January 12: Introduction:
Linneman, chapter 1
Zell, “Real Estate: Past Present and Future”
“Emerging Trends in Real Estate 2011”
- January 19: Real Estate Market Fundamentals:
Linneman, chapter 2
Glaeser, Kolko and Saiz, “Consumer City”
- January 24: Leases:
Linneman, chapter 3
Rybczynski “The Changing Design of Shopping Places”
Linneman and Moy “The Evolution of Retailing in the United States”
Gould, Pashigian, and Prendergast “Contracts, Externalities, and Incentives in Shopping Malls”
- January 26: Pro Forma Tools:
Linneman, chapter 4 and pre-requisites I and II
Vernon Martin III “Nine Abuses in Pro Forma Cash Flow Projections”
- January 31: Cap Rates and Risk:
Linneman, chapters 5 and 7
- February 2: Introduction to Debt and Mortgages:
Linneman, chapters 11, 12 and pre-requisite III
- February 7: Mortgages II.
- February 9: Taxes and Real Estate:
Linneman, chapter 4
- February 14: (**Monday at 6pm, at SHDH 351**): *Guest Lecture: Cynthia Cohen, President and Founder of Strategic Mindshare*
- February 16: Case #1 discussion
- February 21: Cycles:
Linneman, chapter 20
- February 23: Housing Bubbles and Price Dynamics:
Mayer and Sinai “Bubble Trouble? Not Likely”
- February 28: First midterm exam.
- March 2: No Class.
- March 7 and 9: Spring Break.

- March 14: Development
Linneman, chapters 8 and 9
Terwilliger “Developer: Villain or Hero”
Gyourko and Summers “Residential Land-Use Regulation in the Philadelphia MSA”
- March 16: Lenders and Debt Structures:
Linneman, chapters 13 and 15
- March 21: No Class – see guest lecture on March 23
- March 23: Case #2 discussion
March 23: **(Wednesday at 6pm, at SHDH 1206)** *Guest Lecture: Ivan Kaufman, President and CEO of Arbor Realty Trust*
- March 28: Introduction to CMBS:
Linneman, chapter 14
Riddough “Determinants of Commercial Mortgage Choice”
- March 30: CMBS Risks:
Linneman, supplemental II
Poindexter “Defaults in Securitized Real Estate Loans”
Nomura “The CMBX: the Future is Here”
- April 4: REITs:
Linneman, chapters 10, 16 and 18.
REITs: Nuts and Bolts – Primer #1, Merrill Lynch
Zell “Liquid Real Estate”
Crocker “Inside the Revolution”
Gyourko and Sinai “REITs and Taxes”
Rosen “REITs as an Alternative Investment in Volatile Financial Markets”
- April 5: **(Tuesday at 6pm, at SHDH 1206)** *Guest Lecture: Bryce Blair, Chairman of the Board and CEO of AvalonBay Communities, Inc.*
- April 6: No Class – see guest lecture on April 5
- April 11: Case #3 discussion
- April 13: Housing Markets
- April 18: The Rent/Own Decision for Housing and Commercial Properties:
Linneman, chapter 19
Deng and Gyourko “Real Estate Ownership by Non-Real Estate Firms”
- April 20: Review class
- April 25: Second midterm exam