

The Wharton School, University of Pennsylvania

Real Estate Finance: Investment and Analysis

Spring 2009, 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:

Office hours will be from 4pm to 5pm each Friday, and by appointment, in 1461 SH-DH. The complete schedule of office hours – including TA office hours - will be posted on Webcafe, and it will be updated periodically.

TAs:

There are four TAs assigned to this course. Their complete schedule of office hours is posted on Webcafe.

Jonathan Gandelman (gandelma@wharton.upenn.edu) will respond to all questions about exams and practice questions; he will also hold office hours for two weeks prior to each midterm.

Jeremy Grant (jeremytg@wharton.upenn.edu) will respond to all questions related to case I, and he will also hold office hours for two weeks prior to case discussion.

James Riley (rileyja@wharton.upenn.edu) will respond to all questions related to case II, and he will also hold office hours for two weeks prior to case discussion.

Roma Patel (romabp@wharton.upenn.edu) will respond to all questions related to case III, and she will also hold office hours for two weeks prior to case discussion.

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 backpack for this course.

Web Café:

I encourage you to become familiar with the course web page on Wharton's Web Café. All class notes, case materials and case group assignments will be posted on the page, as well as the latest class announcements.

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. All exams are closed book, closed notes. Exams must be taken in class, at the assigned time. **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. You must get a passing grade on each of the exams to pass the class. Written re-grading requests are only accepted up to seven days after exams are graded.

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. Groups will be randomly assigned for the first two cases in an effort to simulate the dynamics of the workplace, in addition to giving you an opportunity to collaborate with a variety of classmates. For the third case you will get to form your own group. Grades are assigned within each course section, so you are not allowed to form groups with students from other sections.

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;
- 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 14: Introduction:
Linneman, chapter 1
Zell, “Real Estate: Past Present and Future”
“Emerging Trends in Real Estate 2009”
- January 21: Real Estate Market Fundamentals:
Linneman, chapter 2
Glaeser, Kolko and Saiz, “Consumer City”
- January 26: 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 28: Pro Forma Tools:
Linneman, chapter 4 and pre-requisites I and II
Vernon Martin III “Nine Abuses in Pro Forma Cash Flow Projections”
- February 2: Cap Rates and Risk:
Linneman, chapters 5 and 7
- February 4: Introduction to Debt and Mortgages:
Linneman, chapters 11, 12 and pre-requisite III
- February 9: Mortgages II.
- February 11: Taxes and Real Estate:
Linneman, chapter 4
- February 16 (**Monday 6pm, at SHDH 350**): *Guest Lecture “Can Previous Real Estate Cycles Help Us Understand Current Market Conditions” with Prof. Peter Linneman, The Wharton School, University of Pennsylvania*
- February 18: Case #1 discussion – title: TBA.
- February 23: Cycles:
Linneman, chapter 20
- February 25: Housing Bubbles and Price Dynamics:
Mayer and Sinai “Bubble Trouble? Not Likely”
- March 2: First midterm exam.
- March 4: No Class.

March 9 and 11: Spring Break.

March 16: Development and Case # 2 initial discussion:
Linneman, chapters 8 and 9
Terwilliger “Developer: Villain or Hero”
Gyourko and Rybczynski “Financing New Urbanism”

March 18: Lenders and Debt Structures:
Linneman, chapter 13

March 23: Case #2 final discussion – title: TBA

March 25: Introduction to CMBS:
Linneman, chapter 14
Riddough “Determinants of Commercial Mortgage Choice”

March 30: (**Monday 6pm, at JMHH G06**) *Guest Lecture TBA*

April 1: CMBS Risks:
Linneman, supplemental II
Poindexter “Defaults in Securitized Real Estate Loans”

April 6: 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”
Linneman “The Forces Changing Real Estate Forever: Five Years Later”
Winograd “The Five Overlooked Features of the Real Estate Capital Markets”
Rosen “REITs as an Alternative Investment in Volatile Financial Markets”

April 7: (**Tuesday at noon, at SHDH 350**) *Guest Lecture “Real Estate Private Equity Funds and the Current Economic Crisis”, with Michael Douglass and William Ryan (Gerber-Taylor Management Company) and Prof. Peter Linneman (The Wharton School)*

April 13: Corporate Ownership:
Linneman, chapters 19 and 15
Deng and Gyourko “Real Estate Ownership by Non-Real Estate Firms”

April 14: (**Tuesday 6pm, at SHDH 350**) Case #3 discussion – title: TBA.

April 20: Housing Markets and the Rent/Own Decision.

April 22: Second midterm exam.

April 27: No Class.