

**PRELIMINARY SYLLABUS AS OF AUGUST 1 2015**

**Real Estate Investments | Real Estate and Finance 209 and 721**  
The Wharton School | University of Pennsylvania | Fall 2015

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Office: 1481 Steinberg Hall-Dietrich Hall

Office Hours: Tuesdays 12:00 to 13:15

& Online by Appointment

Please check Canvas for current schedule

**Teaching Assistants**

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Third TA to be announced.

**Course Objectives**

Real estate is a multi-faceted field, encompassing both an operating industry and a broad category of equity and debt investments. It has its own institutional features and investment structures. As the foundation course for undergraduate students with a concentration in real estate, this class offers an overview of the industry rather than a narrow focus on a particular topic. Beyond that overview, **the overriding learning objective of this course is to ensure fluency in the technical skills required for real estate financial analysis.** These skills are essential to upper-level real estate courses and for the analyst role in any facet of the real estate industry.

**Prerequisites**

For undergraduate students, Finance 100 is a strict prerequisite for enrollment. By extension, the Wharton undergraduate economics sequence and Mathematics 104 are also prerequisites. In rare instances, the requirement may be waived for College, Engineering, or Nursing students with equivalent coursework in finance. The curriculum assumes no prior experience or academic background in real estate.

**Course Materials**

Required materials:

- » (L)inneman, Peter, **Real Estate Finance and Investments, 3<sup>rd</sup> Edition (3.1)**. Note that because of significant updates, the Second Edition is not an effective substitute for the more recent text.
- » Readings, PowerPoint slides, discussion questions, problem sets, and old exams will be available through (C)anvas and (S)tudy.net as indicated.

The following text is an excellent resource but is **not** required for this course:

- » Geltner and Miller, Commercial Real Estate Analysis and Investments, 3<sup>rd</sup> Edition

## Case Studies

Three cases will be distributed in class according to the syllabus schedule. **You may choose your group of four to six members and must work with the same team on all cases.** Groups may include members from both sections. No changes to group membership will be permitted after the first case is submitted.

The cases require a variety of skills, from financial acumen to critical problem solving. You should seek a mix of talents and backgrounds on your team. All team members should work on all cases. A “divide and conquer” approach where two or three teammates work on each case will seriously impinge on your individual preparedness for the examinations.

You may discuss the cases with other groups. However, each group is responsible for preparing case submissions independently. Since cases will be discussed on the dates they are due, late cases will not be accepted nor will extensions be granted. You may submit the cases ahead of schedule if you anticipate a conflict on the due date.

## Examinations

Two 70-minute midterm exams will be administered during regularly scheduled class time. If you cannot attend class on one of the exam dates, please do not enroll in the class. Make-up exams will not be administered except at the request of the Undergraduate Vice Dean’s office. **Notes from Student Health should be taken to the Vice Dean’s office for endorsement by your advisor.**

The second examination assumes proficiency in the skills taught in the first part of the class. Exams will cover material discussed in class and during guest lectures, from class notes, the aforementioned cases, practice problems, and assigned readings.

The exams are closed book, but **you are allowed one single-sided letter-size page of notes (handwritten or printed)** into each exam.

You will need a financial calculator for the exams. **You will not be allowed to use a computer, iPad or other tablet device, or iPhone or other smartphone in lieu of a calculator.** Business and financial calculator emulator apps may not be substituted for a financial calculator. If you do not have your own financial calculator, it is your responsibility to make arrangements for access to a calculator for the exams.

## Class Format, Participation, and Expectations

- » Be present for all classes, unless you have made prior arrangements to be absent. **Please use your name tents**, at least for the first few weeks of class.
- » **Choose a seat by September 8.** That will be your seat for the semester.
- » Students missing a session are responsible for obtaining notes and other materials from their classmates.
- » **Arrive at class on time and prepared to participate in the discussion.** This means having completed the required readings in advance of the lecture and being ready to comment on or discuss the class material.

- » In most cases, there are discussion questions associated with each set of readings. Be prepared to discuss these questions in class.
- » Your full attention is expected during class; you are expected to set aside non-class material, including messaging and social media obligations. Smart phones are not permitted during class.
- » Be present for speakers scheduled outside of normal class time, unless you have a conflict with another class or have spoken with me in advance about an unresolvable non-academic conflict.
- » Please refer to the Wharton Undergraduate Program's Policy on Secular & Religious Holidays (or its graduate equivalent) for information specifically relating to absences on account of religious observance.

### Academic Integrity

The University's Code of Academic Integrity applies to all aspects of the course. Without exception, **violations of the Code will result in a failing grade and referral to the Office of Student Conduct.**

### Grading

|                       |     |
|-----------------------|-----|
| Midterm Examination 1 | 20% |
| Midterm Examination 2 | 20% |
| Case 1                | 20% |
| Case 2                | 20% |
| Case 3                | 20% |

Subsuming a specific distribution, the mean grade point average for the undergraduate class is 3.3 (B+). Roughly one-third of students can expect to receive a grade in the A-range (A or A-). Two-thirds of students can expect to receive grades in the B-range (B+, B, or B-) or lower.

**Grading standards for this course are high but fair.** Students must pass both exams and all three cases in order to receive a passing grade for the course. While there is no formal class participation grade, **a pattern of absences from class will result in a one-step downward revision to your grade at my discretion.** Please refer to the Wharton Undergraduate Program's Policies: Class Expectations.

### Re-Grade Requests

In the event you believe there has been an error in the determination of your score on a case or exam:

- » You have two weeks from the date a graded exam or case is returned to submit a re-grade request.
- » **Re-grade requests and requests for elaboration on point deductions will not be accepted over email.** Please prepare a typed note explaining clearly the error you believe has been made, attach your exam or case to the note, and submit the request to my mailbox in the Real Estate Department office (Suite 1400 Steinberg Hall-Dietrich Hall)
- » Exams or cases submitted for re-grading will be re-graded in their entirety.

## Schedule

Readings shown on the syllabus are in addition to the slide deck for each class, exercises and problem sets, and any supplementary material posted to Canvas. Readings are available in (L)inneman, (C)anvas, or (S)tudy.net as indicated.

| Week | Date                | Topics   | Readings & Assignments   |
|------|---------------------|--|--|
| 1    | Thursday<br>Aug 27  | <b>NO CLASS</b>  | (S) Emerging Trends in Real Estate CH 1 & 2  |
| 2    | Tuesday<br>Sept 1   | Course Overview<br>Introduction to Real Estate Markets                     | (L:C2) What is Real Estate P 12 - 35   |
|      | Thursday<br>Sept 3  | Sources of Real Estate Value<br>Pro Forma Modelling<br>Income and Expenses | (L:C4) Property-Level Pro Forma Analysis PP 43 – 55<br>(L:C5) Financial Modeling   |
| 3    | Tuesday<br>Sept 8   | Cap Rates and Discount Rates<br>Discounted Cash Flow                       | (L:PI) Basics of Discounted Cash Flow and Net Present Value<br>(L:PII) IRR: What It Is and What It Is Not<br>(L:C7) Use and Selection of Cap Rates |
|      | Thursday<br>Sept 10 | Leases   | (L:3) Fundamentals of Commercial Leases  |
| 4    | Tuesday<br>Sept 15† | Mortgages  | (L:PIII) Amortization Fundamentals<br>(L:13) Use of Debt and Mortgages   |
|      | Thursday<br>Sept 17 | Mortgages (continued)  | <b>CASE I DISTRIBUTED</b><br>(L:C12) Should You Borrow)  |
| 5    | Tuesday<br>Sept 22† | Debt Markets<br>Financing Alternatives                                     | (L:C15) Ground Leases as a Source of Finance<br>(L:C17) Real Estate Private Equity   |
|      | Thursday<br>Sept 24 | Evaluating Pro Formas  | (S) Nine Abuses Common in Pro Forma Cash Flow Projections  |
| 6    | Tuesday<br>Sept 29  | Evaluating Development Pro Formas  | (L:C8) Development Pro Forma Analysis<br>(L:C9) Development Feasibility Analysis   |
|      | Thursday<br>Oct 1   | Real Estate Taxes  | (L:C4) Property Level Pro Forma Analysis P 55 – 56, 59 - 63  |
| 7    | Tuesday<br>Oct 6    | Discussion of Case I   | <b>CASE I DUE BY 10:00</b><br><b>MID EXAM I REVIEW SHEET DISTRIBUTED</b>   |
|      | Thursday<br>Oct 8   | <b>NO CLASS   FALL BREAK</b>   | —  |
| 8    | Tuesday<br>Oct 13   | Real Estate Cycles   | (S) Adjustment Mechanisms in Real Estate Markets<br>(L:C20) Real Estate Cycles<br>(L:C16) Real Estate Exit Strategies                              |
|      | Thursday<br>Oct 15  | <b>IN-CLASS MIDTERM EXAM I</b><br><b>END OF MBA QUARTER 1</b>              | —  |

|    |                    |   |   |
|----|--------------------|---|---|
| 9  | Tuesday<br>Oct 20  | Commercial Mortgage Analysis &<br>Underwriting  | <b>CASE II DISTRIBUTED</b>  |
|    | Thursday<br>Oct 22 | <b>NO CLASS   GUEST SPEAKER<br/>OFFSET</b>      | —   |
| 10 | Tuesday<br>Oct 27  | Mortgage-Backed Securities                      | (L:C14) Commercial Mortgage-Backed Securities<br>Basics<br>(L:SII) A Look at a Real CMBS Issue<br>(S) CMBS: Past, Present, and Future |
|    | Thursday<br>Oct 29 | Mortgage-Backed Securities<br>(continued)       |   |
| 11 | Tuesday<br>Nov 3   | <b>CASE II DISCUSSION</b>                       | <b>CASE II DUE BY 10:00</b>   |
|    | Thursday<br>Nov 5  | Regulation of Commercial Real Estate<br>Finance | <b>CASE III DISTRIBUTED</b>   |
| 12 | Tuesday<br>Nov 10  | Real Estate Investment Trusts                   | (L:C18) REITs and Liquid Real Estate<br>(S) Basic Valuation of a Real Estate Investment Trust   |
|    | Thursday<br>Nov 12 | Real Estate Investment Trusts<br>(continued)    |   |
| 13 | Tuesday<br>Nov 17  | Corporate Property Ownership<br>Sale-Leasebacks | (L:C19) Corporate Real Estate Decision-Making   |
|    | Thursday<br>Nov 19 | <b>CASE III DISCUSSION</b>                      | <b>CASE III DUE BY 10:00</b>  |
| 14 | Tuesday<br>Nov 24  | <b>NO CLASS   GUEST SPEAKER<br/>OFFSET</b>      | —   |
|    | Thursday<br>Nov 26 | <b>NO CLASS   THANKSGIVING</b>                  | —   |
| 15 | Tuesday<br>Dec 1   | Housing Markets                                 | <b>MID EXAM II REVIEW SHEET DISTRIBUTED</b>   |
|    | Thursday<br>Dec 3  | International Real Estate Investment            |   |
| 16 | Tuesday<br>Dec 8   | <b>IN-CLASS MIDTERM EXAM II</b>                 | —   |