

Real Estate Finance and Investment Analysis | Real Estate 209 and Finance 209
The Wharton School | University of Pennsylvania | Fall 2013

— Preliminary as of July 2013 —

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Office Hours: Tuesdays 15:30 to 16:30
& By Appointment

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 goal of the 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 the real estate industry.

Prerequisites

Finance 100 and Statistics 101 are strict prerequisites for enrollment. By extension, Economics 10, 001, or 002 and Mathematics 104 are also prerequisites. Waivers will only be granted for Penn Design and Penn Law students with the permission of their advisor. The curriculum assumes no prior experience in the fields of real estate or finance.

Course Materials

Required Textbook

- » Linneman, Peter, Real Estate Finance and Investments, 3rd Edition. Note that because of significant updates, the Second Edition is **not** an effective substitute for the more recent text.

Optional and Reference Texts Available in Print and Electronic Editions and on Reserve at Lippincott

- » Brueggeman and Fisher, Real Estate Finance and Investments, 14th Edition

Other Material

- » PowerPoint slides, readings, and problem sets are available through Canvas and Study.net.

Case Studies

Two cases will be distributed in class according to the syllabus schedule. You may choose your own group of four to six members and must work with the same team on both 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 both cases. A “divide and conquer” approach where two or three teammates work on each case will 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 complete the cases ahead of schedule if you anticipate a conflict on the due date.

Examinations

Two exams will be administered during regularly scheduled class time. 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.

The second examination assumes proficiency in 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 two cases, practice problems, and assigned readings.

The exams are closed book, but you are allowed **one single-sided letter-size page** of notes 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 with me. Students missing a session are responsible for obtaining notes and other materials from their classmates.
- » 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 for information specifically relating to absences on account of religious observance.
- » Please 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.
- » Your full attention is expected during class; you are expected to set aside non-class material and messaging.

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

Examination 1	20%
Examination 2	25%
Case 1	25%
Case 2	25%
Class Participation	5%

Subsuming a specific distribution, the mean grade point average for the class is 3.3. You must pass both exams and both cases in order to receive a passing grade for the course. Frequent absences from class will result in a failing grade. Please refer to the Wharton Undergraduate Program's Policies: Class Expectations.

Fall Semester Schedule — As of July 2013

Week	Class	Date	Topic
0	1	August 29	Introduction
1	2	September 3	The Commercial Real Estate Asset Class
	3	September 5	Space Markets — Demand
2	4	September 10	Space Markets — Leases
	5	September 12	Pro Forma Analysis — Modeling Revenue
3	6	September 17	Pro Forma Analysis — Modeling Expenses
	7	September 19	Pro Forma Analysis — Discounted Cash Flow
4	8	September 24	Asset Markets — Valuation
	9	September 26	Asset Markets — Valuation
5	10	October 1	Development — Supply of Space
	11	October 3	Development — Supply of Space
		October 3	Case I, Part I Due
6	12	October 8	Guest Lecture
		October 10	Fall Break
7	13	October 15	Debt Markets
	14	October 17	Debt Markets — Mortgage Math
		October 17	Case I, Part II Due
8	15	October 22	Debt Markets — Credit Risk
	16	October 24	Examination I
9	17	October 29	Real Estate Investment Trusts (REITs)
	18	October 31	Real Estate Investment Trusts (REITs)
10	19	November 5	Commercial Mortgage-Backed Securities (CMBS)
	20	November 7	Commercial Mortgage-Backed Securities (CMBS)
11	21	November 12	Investment Structures
	22	November 14	Investment Returns
12	23	November 19	Mortgage Pricing
	Supplementary	November 20	Schlager Lecture — Keith Gelb
	24	November 21	Review for Examination II
13	25	November 26	Examination II
		November 28	Thanksgiving Break
14	27	December 3	The Real Estate Portfolio
	28	December 5	Current Issues in Real Estate
		December 5	Case II Due
15	29	December 10	Last Day of Class Case II Discussion