

Columbia Business School
Real Estate Finance (B8314)
Fall, 2008

Neng Wang

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Section 001: Tuesday/Thursday, 9:00 AM to 10:30AM

Section 002: Tuesday/Thursday, 10:45 AM to 12:15PM

Course Overview: Real estate accounts for one third of the capital assets around the world. You simply cannot ignore it in as an investor or in any business, whether the business is called real estate or not! This course provides students with a comprehensive understanding of real estate valuation, cycles, markets, investments, and decision-making, using modern finance and economics tools. The bulk of the course covers income-producing (commercial) property, although we will discuss residential housing as well. This course is not a hodgepodge of vaguely connected methodologies and rules of thumbs about real estate. Rather, it uses a unified finance-based framework to answer real estate investment decision making problems encountered in the real world. Doing so requires a good understanding of the institutional features that differentiate real estate from other asset classes and markets as well as modern finance and economics tools.

Class Materials:

Course handouts: Class notes, readings, and cases will be handed out in class and available on ANGEL.

Reference books:

- *Real Estate Finance and Investments: Risks and Opportunities* by Peter Linneman (2nd edition)—*Strongly Recommended*. This book provides background material and context for many of the concepts covered in class.

- *Commercial real estate analysis and investments* by Geltner and Miller, together with Clayton and Eichholtz, (Southwestern Press, 2nd edition)-- *Recommended*. This book is a very useful reference that provides a more detailed coverage and offers more quantitative analysis.
- These two books are complementary to each other and are available for purchase at the bookstore. Four copies of each book are available at the library.

Grading: Your grade will be determined by assignments including three homework exercises and three cases, two midterm exams, and class participation.

Assignments: There will be both homework assignments and cases. They jointly account for 60% of your grade. Homework assignments and cases will be completed in groups. The maximal size of a group will be four. Under no circumstances, will I accept any group whose size is larger than 4. It is solely your responsibility to form the group.

Cases: You will do three cases. Each case counts 10% towards your course grade.

Homework Exercises: You will have three homework exercises. Each homework assignment accounts 10% of your course grade.

Assignments should be turned in at the beginning of class on the day it is due. Late assignments will be accepted under *no* circumstances.

1st midterm: The first midterm exam covers material for the first half of the lecture. *It is only offered in class. Make-ups are not given unless you have written authorization from the student affairs office.*

2nd midterm: The second midterm exam covers material from the lectures after the 1st midterm. *It is only offered in class. Make-ups are not given, unless you have written authorization from student affairs office.*

The two midterm exams jointly account for 35% of your course grade. When calculating your course grade, I will choose the larger score based on the following two weights: (i) 25% on the first midterm and 75% on the second midterm; and (ii) 50% on both the first and second midterms. I hope that this will give you incentives to work hard after the first midterm, even if you unfortunately did not perform well on the first midterm! More specific instructions on what to expect will be given later.

The readings distributed over the semester are to help you better understand concepts and materials covered in class. Materials only in the readings but not covered in class are not required for the exams. I will be very precise about what you need to know for the exams in the exam review sessions.

Re-grading: All requests for re-grades must be submitted, in writing, within two weeks of my returning the graded homework, case, or the exam. You must submit the entire homework, case, or the exam, along with a detailed description of what you think was scored incorrectly. Before submitting your request, you should carefully examine the posted solutions. Re-grading may potentially lead to a lower grade.

Class Participation:

Class participation counts for 5% of your course grade. Please don't be shy --Ask questions to clarify what we are discussing or to bring a different perspective in class. The course is cumulative, so being lost gets quite costly very quickly. Constructive comments in class will increase the participation points. Naturally, consistently bad or irrelevant participation will decrease the participation points. Please turn off cell phones, Blackberries, Treo and etc. Absences or late arrivals will be considered as a factor in class participation. Materials covered by guest lectures are required.

OUTLINE

1. Sept. 4: Course Overview and Requirements
 2. Sept. 9: Mortgage Mechanics
 3. Sept 11: Analysis of Income Producing Properties I: Pro forma
 4. Sept. 16: Analysis of Income Producing Properties II: Valuation and Cap Rates
 5. Sept. 18: Real Estate Capital Structure I: Implications for Risk and Return (**HW#1 Due**)
 6. Sept. 23: Real Estate Capital Structure II: Default Option and Equity Valuation
 7. Sept. 25: Real Estate Capital Structure III: Default Option and Equity Valuation (cont')
 8. Sept. 30: Real Estate Capital Structure IV: NOI, Property Value, and Mortgage Valuation (**HW#2 Due**)
 9. Oct. 2: Analysis of Income Producing Properties III: Taxes
 10. Oct. 7: Analysis of Income Producing Properties IV: Risk, Return, Yield and Leverage
 11. Oct. 9: **Case #1 (The Associate's Task) Due:** Discussions
 12. **Oct 14: First Midterm Exam in Class**
- No Classes:** Oct. 16, 21

13. Oct. 23: Real Estate Capital Structure V: Beyond the Plain Vanilla Mortgage/Equity
14. Oct. 28: Real Estate Capital Structure VI: Conflicts of Interest
15. Oct. 30: Real Estate Capital Structure VII: Endogenous Default Decisions
16. Nov. 4: Land Development, Valuation, Risk, and Return (**HW#3 Due**)
17. Nov. 6: Introduction to CMBS
18. Nov. 11: CMBS and Mezzanine Debt (Guest speaker: Geoff Gervis from Capital Trust)
19. Nov. 13: Real Estate Investment Trusts (REITs)
20. Nov. 18: **Case #2 (1800 L. Street) Due:** Discussions
21. Nov. 20 Real Estate Private Equity and Hedge Funds
22. Nov. 25: Course Review
- No Class:** Nov. 27 (Thanksgiving)
23. Dec. 2: **Case #3 (Graybar) Due:** Discussions
24. *Dec. 4:* **Second Midterm Exam in Class**