Contact information and office hours

Dan Adkinson: da2120@columbia.edu; By appointment
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Teaching Assistant:
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Class Sessions Thursday evenings 6:00-9:00PM

Course Overview: Real estate accounts for one third of the world’s capital assets. This course provides students with a comprehensive understanding of real estate valuation, cycles, markets, investments, and decision-making. The bulk of the course covers income-producing (commercial) property, although we will discuss residential housing. This course provides 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.

Course handouts: Class notes will be handed out in class and posted on Canvas following the class session. Pre-readings, homework exercises and cases will be posted on Canvas.

Reference books: Real Estate Finance and Investments: Risks and Opportunities by Peter Linneman (3rd edition) Required. 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 with Clayton and Eichholtz, (Southwestern Press, 2nd edition) *Recommended.* This book is a very useful reference that provides a more detailed coverage and quantitative analysis.

These two books are complementary to each other and are available for purchase at the bookstore and on Amazon. Four copies of each book are available at the library.

Pre-readings will be assigned from the Linneman text. Pre-readings must be completed prior to the class session and students should be prepared to contribute to the discussions in the class session in a manner that demonstrates a familiarity with the material in the pre-readings. As discussed below, such contributions are essential elements of the grading for class participation. Additionally, material in the pre-readings may provide the basis for questions on the midterm or final exams whether or not that material is discussed in class sessions.

**Grading:**

Your grade will be determined by assignments including one homework exercise, four cases, a midterm exam, a comprehensive final exam, and class participation. The relative contribution of each of these components to the overall course grade is discussed below. Students wishing to have an assignment or exam re-graded must do so within two weeks of receiving the graded work. A submission for re-grading must be done in writing with an explanation of why the student feels that the grade was given in error. Re-grading will examine specific issues mentioned in the written submission.

**Assignments:**

Written assignments jointly account for 45% of the overall grade, including one homework exercise (5%) and four cases (10% each). The homework exercise and the first case (Sunset Apartments) will be completed individually. All work on these two assignments must be completed on your own. The sharing of work product among students is explicitly prohibited. The three remaining cases will be completed in groups. While each group will make one submission and receive a group grade, all members of each group must be prepared to contribute to the class discussion of the case, including their group’s answer to the questions posed in the case. Material covered by the assignments, including details of the cases, may be covered on the exams. The maximum size of any group will be four students. Please form groups and enter the names of your group members on Canvas prior to the third class session. *Groups must complete their own work and cannot discuss or share work with other groups or anyone else except the professor or TA.*
**Midterm:** The midterm exam covers material from the first five class sessions, the pre-readings associated with those sessions, the homework exercise, and the first case (Sunset Apartments). It will be offered in the sixth class session on June 27. The midterm will account for 15% of the overall course grade.

**Final Exam:** The final exam will be comprehensive in nature and will cover material from all of the class sessions, all of the course pre-readings, and all of the course exercises and cases. It will be offered only during the final class session on August 15. The final exam will account for 30% of the overall course grade.

**Missing an Exam:** Students who need to miss an exam must notify the Professor in writing in advance and have their absence approved by the Office of Student Academic Affairs. Students missing an exam without pre-approval from the Office of Student Academic Affairs will not receive credit for that exam. Makeup exams will not be offered except for pre-approved absences.

**Class Participation:** Class participation will account for 10% of your overall course grade. In order to receive full credit for class participation a student must a) do the class session pre-readings, b) attend class sessions, c) consistently engage in class discussions both voluntarily and when called upon and d) make constructive contributions to the class discussions which evidence an understanding of the topic and/or familiarity with the pre-readings. Class attendance is mandatory and attendance may be taken. Please send a note to the instructors and the TA if you plan on missing a session (Note: Instructor approval for missing class is not required, just notification.)

**Honor Code:** Students are expected to follow the honor code at all times, including rules for individual and group work. Violations of the honor code will result in referral to the Student Leadership and Ethics Board. See: http://www7.gsb.columbia.edu/honor/resources.
OUTLINE AND PRE-READING ASSIGNMENTS

**Class 1, May 16:** Course Overview and Requirements; Real Estate Returns; Leases; Introduction to Pro Forma Income and Expenses; Real Estate Projections;  
Pre-reading: *Linneman*, Chapters 1-5 (excluding supplements)

**Class 2, May 30:** Risk; Introduction to Mortgage Analysis; Real Estate Debt Analytics; Default and Loss Measurement; Weighted Average Life; Duration  
Pre-reading: *Linneman*, Chapter 13, Prerequisite III

**Class 3, June 6:** Real Estate Valuation: Cap Rates, Cycles and Taxes  
Pre-reading: *Linneman*, Chapter 4 Supplement A: pages 66-70; Chapter 7: The Use and Selection of Cap Rates, pages 114-124 Chapter 20: Real Estate Cycles (optional), pages 358-389. Green Street Advisors reports on Office & Apartments; Capital Expenditures (excerpts)

**Class 4, June 13:** Prepayment and Premiums; Loan Valuation; Use of Leverage in Real Estate; Impact on Portfolio Risk; Return and Volatility; Measuring Structural Risk; Law of One Price  
Pre-reading: Linneman, Chapter 12  
**Assignment:** Homework Exercise 1 (individual assignment)

**Class 5, June 20:** Discuss Sunset Apartments; Mezzanine Debt; Understanding Housing Markets; Review for Midterm  
Pre-readings: Summary of “Superstar Cities” (by Gyourko, Mayer, and Sinai); “The Mortgage Market Meltdown and House Prices” (by Hubbard and Mayer)  
Optional: Goldman Sachs Monthly Housing Market Report (June, 2013); Original paper, “Superstar Cities”  
**Assignment:** Case 1, Sunset Apartments (individual assignment)

**Class 6, June 27:** Midterm Exam (in class)

**Class 7, July 11:** Panel on Real Estate Entrepreneurship; Housing Markets, ctd…Should you Buy, Rent, (or Invest in) a Home?  
Pre-readings: Green Street reports on Single Family Auctions (June, 2013) and Single Family Rental Business (June, 2012); Miscellaneous newspaper articles

**Class 8, July 18:** Borrower Default Decisions; Real Estate Workouts, State Prices and Replicating Portfolios; Corporate Use of Real Estate {Jesse Greene}  
Pre-reading: Linneman, Chapters 11 & 19 (with Supplement B)  
**Assignment:** Case 2, Duke and Byline (group assignment)
**Class 9, July 25:** Real Estate as an Asset Class; Public Securitized Real Estate Equity (REITs); Real Estate Private Equity

**Pre-reading:** Linneman, Chapters 16, 17, & 18; Additional readings to be posted on Canvas

**Class 10, Aug 1:** Discuss 1800 L Street Case; Land Development; Land Valuation; Ground Leases

**Pre-reading:** Linneman, Chapters 9 (with Supplement A & B) & 15 (with Supplemental II)

**Assignment:** Case 3, 1800 L Street (group assignment)

**Class 11, Aug 8:** Commercial Mortgage Backed Securities (CMBS); Discuss Graybar Case; Review for Final Exam

**Pre-reading:** Linneman Chapter 14

**Assignment:** Case 4, Graybar (group assignment)

**Class 12, Aug 15:** Final Exam