



FBE 391: Real Estate Finance and Investments

Fall 2019

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Class Meeting: Monday/Wednesday,

10am class: 10-11:50am, HOH 1,

12pm class: 12-1:50pm, HOH 1.

Office Hours:

Monday/Wednesday, 2:30-3:30pm, or by appointment.

Course Description

Real estate is a critical part of the economy and aggregate wealth. The primary goal of this course is to develop an understanding of the principle issues involved in real estate investment and finance. Our treatment of real estate will be rigorously based on the modern finance theory. In the first half of the course, we will cover real estate investment analysis, valuation and financing at the “micro” (individual property) level. In the second half, we will cover mortgages, and briefly discuss real estate capital markets. This course is designed to provide the student with essential tools to understand how real estate value is determined, created, and influenced. We will cover a critical set of analytic concepts and techniques essential for students planning careers in almost any aspect of real estate. It is also a valuable course for finance majors who may become involved with real estate at the corporate level or alternatively as investors, investment advisors, or providers of capital.

Learning Objectives

Upon successful completion of this course, students will be able to

- Understand the tight connections between the financial markets, macroeconomy, and real estate markets
- Perform a qualitative and quantitative evaluation of income-producing properties, which includes:
 - Making cash flow projections and preparing proforma statements
 - Evaluating risk of investments and developing expected return measures
 - Determining the value of specific investments
- Understand the mechanics, pros and cons of different types of mortgages. Calculate the APR, payments of mortgages, understand how debt financing affects the risk of the investment
- Understand the underwriting process
- Learn the basics of ARGUS Enterprise.

Required Materials

There is no required textbook for the class. The main recommended textbook is Geltner, Miller, Clayton and Eichholtz, *Commercial Real Estate Analysis & Investments*, South-Western Educational Publishing; 3rd edition (February, 2013). It is available from all major online booksellers and at the USC bookstore. You can use any edition of the textbook. Most of the lectures will be based on Geltner et al. As an alternative reference you may use Breggeman and Fisher, *Real Estate Finance and Investments*, which is adapted in several other real estate finance courses at Marshall.

There will be supplemental readings and cases, which will be made available at the Blackboard website. The Harvard Business School cases (required) can be purchased online from Harvard Business Online. To purchase the cases, you need to go to: <https://hbsp.harvard.edu/import/654991> and register/sign in. The website will allow you to purchase a digital copy of each case for \$4.25 using your credit card. The remaining course materials will be posted on the Blackboard.

Prerequisites and Recommended Preparation

BUAD 215 or BUAD 306. Individuals should have a good understanding of basic financial concepts and techniques such as cash flow discounting, risk and return. A profound background in real estate is neither expected nor necessary, a solid background in finance is much more critical. A basic knowledge of Microsoft Excel is also highly recommended. The use of a financial calculator which can compute annuities/present values and IRRs, such as HP 10B II or 17B II+ is allowed, but is neither necessary nor encouraged. If you elect to use it, you will need to learn how to operate the calculator, no tutorial will be given in class.

Course Notes and Communication

Most of the communication outside of class time will take place on Blackboard. I will post all class related information, including the syllabus, lecture notes, most of the readings and cases on the Blackboard. Please check the Blackboard site regularly for class materials and announcements. If you have any class related questions or comments outside of the class time, please use the **Blackboard Discussion Board** to communicate with me and your classmates. Please check the previous postings before creating a posting to see whether you can find answers to your questions there. My answers will be visible to the entire class, which hopefully will create a wealth of information for the class. This system will replace e-mail communication about class related matters. If you would like to meet me for a class related or personal matter, please try to follow my office hours listed above.

Grading Policies

This is a very “applied” course. In order to gain hands-on practice, you will be working on several projects, case studies, and assignments, which will account for the majority of your grade in this class. Your grade will be determined by assignments, four project/case writeups, a midterm exam, a final exam, a final project, and class participation. The grade breakdown will be as follows:

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| Class participation | 10% |
| Assignments | 10% |
| Four project / case write-ups | 20% |
| Final project | 20% |

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| Midterm exam | 20% |
| Final exam | 20% |

Midterm and Final exam: There will be one midterm exam and one final exam. Exams will cover all materials examined in class or the class notes. The two tests will jointly account for 40% of your grade. When calculating your course grade, I will choose the larger score based on the following weights: (i) 10% on the midterm and 30% on the final exam; and (ii) 20% on both exams. Both test scores will be standardized to make them comparable ($\frac{\text{score} - \text{mean}}{\text{standard deviation}}$). The midterm will test material covered up to the exam. No makeup midterm exams will be given. If you miss the test for a medical reason that can be documented and verified, then the weight of the missed midterm exam will be added to the final exam. Otherwise, a grade of zero will be assigned. In the final midterm, emphasis will be placed on material covered after the midterm. However, remember that the latter material builds heavily on the earlier material. Both exams will be closed book, notes and computer. You will be allowed to have one formula page and a calculator (can be a financial or scientific calculator, no “smart device” with internet connection) with you.

Assignments: There will be homework assignments and exercises which are aimed towards giving you the opportunity to use the techniques we learn in class and prepare you for the exams. These assignments are marked with “A” in the course outline below, and will be posted on Blackboard. Total homework grade (which accounts for 10% of your grade in this course) will be based on the best three out of four individual homework grades. Therefore, one assignment may be missed without a grading penalty. **Assignments should be turned in using the Blackboard assignments module, hard copies or late assignments will not be accepted.** I encourage you to discuss the assignments with your classmates; but each student is responsible for preparing and uploading his/her solution independently.

Written cases / projects: Four case/project writeups (marked with “C” in the outline below) are to be prepared in groups of 5 - 6 people, except for the House Valuation project due in week 3, which will be prepared individually. I will create the teams (from class lists, following alphabetical order) and announce them to the class at the end of week 3. The case writeups should be similar to executive summary in nature and should answer the questions and issues raised in the case assignments. The writeups should clearly indicate the assumptions made in the analysis, and should be 2-3 pages in length, exclusive of any exhibits deemed necessary. **The case and project writeups are due at 10am on the day they are discussed in class. They should be turned in using the Blackboard assignments module, hard copies or late assignments will not be accepted under any circumstances.** The written cases/projects will account for 20% of your grade.

Final project: The group project will serve as the culmination of the class. The goal of this project is to search for a potential real estate investment, and to present your group's investment proposal to the rest of the class during the last week of the semester. You are expected to attend all of the presentations and provide constructive feedback to your classmates. The potential investment will be the acquisition of an existing development. The source of your development can be the local broker community, the Internet (CoStar, Loopnet, ...), the Wall Street Journal, or your own contacts. The project writeup and presentation will account for 20% of your grade in the course.

Class participation: Class participation accounts for 10% of your course grade. Since participation requires attendance, attendance will be an input into your participation grade. I encourage you to ask your questions to gain clarity, enrich discussion or bring a different perspective. Attendance will be taken, and absences and late arrivals will be considered as a factor in class participation. I expect everybody to prepare for and attend the classes, participate in case/project discussions and offer answers to my questions.

Re-grading: All requests for re-grades must be submitted in writing within a week of my returning the graded assignment or exam. You must submit the entire assignment or exam along with your detailed description of what you think was scored incorrectly. Re-grading may potentially lead to a lower grade.

ADDITIONAL INFORMATION

Technology Policy

Laptop/tablet usage during class sessions is strictly limited to class materials. I reserve the right to ask the students to shut down laptops/tablets. Use of other personal communication devices, such as cell phones, is considered unprofessional and is not permitted during sessions. I am planning to have class sessions recorded using classroom technology and post a link to the daily recordings on Blackboard. However, these recordings should not be considered as a substitute for class attendance. Use of any recorded or distributed material is reserved exclusively for the USC students registered in this class.

USC Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/scampus-part-b/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

<https://engemannshc.usc.edu/counseling/>

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

Relationship & Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

Office of Equity and Diversity (OED)/Title IX compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class.

<https://equity.usc.edu/>

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations.

<dsp.usc.edu>

Student Support & Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <https://studentaffairs.usc.edu/ssa/>

Diversity at USC – <https://diversity.usc.edu/>

Tab for Events, Programs and Training, Task Force (including representatives for each school), Chronology, Participate, Resources for Students

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. <emergency.usc.edu>

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.

Provides overall safety to USC community. <dps.usc.edu>

Students with Disabilities

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). DSP provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. Students requesting test-related accommodations will need to share and discuss their DSP recommended accommodation letter with me at least three weeks before the date the accommodations will be needed. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

This syllabus is an invitation to you as a student to engage in an exciting and interactive study of real estate finance and investments. My instruction will focus on real-world engagement with real estate investments; it will provide you with information, offer practice with skills, and enhance your preliminary understanding of real estate concepts. It is my intention to provide a collaborative and supportive learning environment where students learn from one another both in and out of the classroom. To that end, modifications to this syllabus might be warranted as determined by the instructor as I assess the learning needs of this particular class of students.

TENTATIVE COURSE OUTLINE*

Week #1 (8/26, 8/28)

Course overview

Space and asset markets (GM[†] Ch 1)

Real estate investments - background (GM Ch 7)

Running in cycles, *FRBB Regional Review*, Q2/Q3 2004.

Emerging trends in real estate 2019

Recent WSJ articles on real estate markets

Bonus Assignment: HW 0 (week 1 article punchlines) is due on 8/28.

Week #2 (9/4)

No class on 9/2 (Labor day).

Real estate investments - risk and return (GM Ch 8,9,10)

Refreshener reading: RWJ[‡] Ch 9,12.

Week #3 (9/9, 9/11)

Risk and return, cont'd.

Warm-up project: House valuation, writeup is due on 9/11. (C)

Additional articles on housing:

Home prices must fall far to be in sync with rents, *Wall Street Journal*, 1/3/2008.

Your home by the numbers, *Business Week*, 6/14/2004.

Some new math on homes, *New York Times*, 4/1/2006.

Week #4 (9/16, 9/18)

Real estate valuation - Cash flow proformas (GM Ch 11, 12)

Case Study: Pinckney Street, case writeup is due on 9/18. (C)

Week #5 (9/23, 9/25)

Real estate valuation II (GM Ch 12)

HW 1 (valuation) is due on 9/25. (A)

Week #6 (9/30, 10/2)

Reviewing Discounted Cash Flow Analyses, *The Appraisal Journal*, Jan 1990.

Leverage and valuation (GM Ch 13)

HW 2 (Rentleg proforma) is due on 10/2. (A)

Week #7 (10/7, 10/9)

Leverage and valuation, cont'd. (GM Ch 13)

Case Study: 2050 Tubeway Avenue, part I, case writeup is due on 10/9. (C)

* You should expect some deviations from the outline. Significant changes will be announced on the Blackboard and/or in class.

[†] Geltner, Miller, Clayton & Eichholtz.

[‡] Ross, Westerfield & Jordan, main textbook for BUAD 306.

Week #8 (10/14, 10/16)

Midterm review on 10/14.

Midterm exam on 10/16 during class.

Week #9 (10/21, 10/23)

Argus tutorial on 10/21, bring a laptop to the classroom.

Taxes and valuation (GM Ch 14)

Tax reform and real estate, PWC Tax Insights

Week #10 (10/28, 10/30)

Mortgages (GM Ch 17,19)

Refreshener reading: RWJ Ch 7 (Bonds)

HW 3 (Argus HW, Tubeway Avenue) is due on 10/28. (A)

Week #11 (11/4, 11/6)

Mortgages cont'd.

2050 Tubeway Avenue, part II, to be prepared in class.

Earlier articles:

Nightmare mortgages, Business Week, 9/11/06.

'Recourse' sequel: For developers, loans get personal, WSJ, 6/18/08.

The United States of subprime, WSJ, 10/11/07.

Underwriting

Case Study: Angus Cartwright IV, case writeup due on 11/4. (C)

Week #12 (11/11, 11/13)

Final project progress report is due on 11/11.

3-minute final project update presentation on 11/11.

REITs (GM Ch 23)

Portfolio diversification through REITs, Ibbotson - NAREIT, 2006.

REITs for Rookies, Deutsche Banc Alex. Brown, 1/4/2002.

UPREITs and DownREITs Gain Popularity, CIRE Magazine, Mar-Apr 1998.

Waterfall structures

Guest speakers on 11/13.

Mark Loewen, Senior Vice President and Team Leader

Chris Chapman, Vice President and Relationship Manager

Wells Fargo Commercial Real Estate

Week #13 (11/18, 11/20)

HW 4 (mortgages) is due on 11/18. (A)

Final exam review on 11/18.

Guest speaker on 11/20.

Reza Etedali, CEO & Founder, REZA Investment Group Inc.

Week #14 (11/25)

No class on 11/27 (Thanksgiving holiday).

Emerging trends in real estate 2020

Week #15 (12/2, 12/4)

Final project executive summary is due on Sunday, December 1, at 11:59pm (upload on Blackboard).

Final project presentations

Project reports are due on the day of the presentation (in print)

Final Exam Schedule

10am class: December 16, 8-10am

12pm class: December 13, 11am-1pm