



RED 362 – Real Estate Development Fundamentals
Spring 2021: Tuesdays & Thursdays—8:00 to 9:50 am PT
Location: Online via Zoom (Accessed through Blackboard link)

Instructor: Professor Mary Lynne Boorn

Office: Online Zoom Sessions

Contact Info: boorn@usc.edu

Office Hours: Friday 12:00 – 2:00 pm PT and by appointment (all via zoom). For office hours, please contact Professor in advance to secure your time slot.

Topic: Office Hours

Join Zoom Meeting

<https://usc.zoom.us/j/222035009>

Meeting ID: 222 035 009

Course Description and Objectives

The objective of this course is to understand the basics of professional Real Estate development & investment and the urban contexts in which both occur. Basic techniques of investment analysis and valuation will be covered, but these tools are blind without a richer understanding of how land markets operate and how developers and investors assess and create value. By the end of this course, students will be able to:

- Explain factors of urban growth and decay.
- Describe the location determinants for workers and firms between urban cores and suburbs.
- Analyze the links between the labor, land and housing markets.
- Construct proformas for simple real estate investments.
- Determine the value and performance of real estate investments using proformas and financial ratios.

USC Technology Support Links

[Zoom information for students](#)

[Blackboard help for students](#)

[Software available to USC Campus](#)

Course organization and requirements

The course meets twice per week on Tuesdays and Thursdays. It is an intensive class with many assignments and several examinations. I want to emphasize the importance of your willingness to participate during class and group activities, your involvement throughout this virtual experience will make it a much more enjoyable journey for everyone. All assignments will be posted on USC Blackboard.

Students will be graded based on the following criteria:

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|----------------------------|-----|
| • Homework assignments (3) | 20% |
| • In-class midterm exam 1 | 20% |
| • In-class midterm exam 2 | 20% |
| • Final Project | 20% |
| • Final exam | 20% |

Teaching Assistant

Jordy Coutin (jcoutin@usc.edu) will help during the course. Jordy will hold weekly office hours via Zoom on Mondays from 9:00 to 10:30 am PT. Feel free to email him to set up an appointment as well. His office hours Zoom link is: <https://usc.zoom.us/my/jcoutin>

Class materials

- Required text: Moretti, Enrico. 2012. *The New Geography of Jobs*. New York, NY: Houghton Mifflin Harcourt.
- Required textbook <https://www.mheducation.com/highered/product/1260013936.html#buying-options> – e-book rental looks like a good option): Ling, David and Wayne Archer. 2021. *Real Estate Principles: A Valuation Approach*, 6th edition. New York, NY: McGraw Hill.
- Required tools: MS Excel. There is no need to be an expert, but basic proficiency will help you a lot especially during the second half.

Student Etiquette

USC Price has created a short video illustrating Zoom etiquette <https://priceschool.usc.edu/teaching/> (just scroll down and you will find it under the heading *Zoom Etiquette Tips for Students*. You must view this video before the first class. Keep in mind the following etiquette tips:

- Please mute yourself when you are not talking.
- Whenever possible please have your video in class, this is especially important during breakout room and smaller group sessions.
- Please don't use the chatroom for non-class related matters.
- Use the "raise hand" feature to let me know you have a question or comment.
- Try using a non-distracting virtual background if in a public space or with roommates or family.
- "If it's not appropriate in class, it's not appropriate online".

Grading Scale

- A: Work of excellent quality (94-100 = A; 90-93 = A-)
- B: Work of good quality (89-87 = B+, 86-83 = B, 80-82 = B-)
- C: Work of fair quality (79-77 = C+, 76-73 = C, 70-72 = C-)
- D: Work of minimum passing quality (69-67 = D+, 66-63 = D, 60-62 = D-)
- F: Failure to adequately complete course work (59 and below)

Assignment Submission Policy

Student work must be turned in on time. Assignments must be turned in by the beginning of class on the due date. Assignments will be posted and turned in via Blackboard. Late work will receive a full grade deduction for each day it is late, this includes the first day (i.e. if an assignment is turned in late but still on the due date, it will receive a full grade deduction).

Exam Policy

Exams must be taken on the date and the time given in the syllabus unless expressly allowed through instructor's permission well in advance of the exam date.

Course Schedule

Week 1 (1/19-1/21). Class Overview

We review the organization of the course. We define a metropolitan area and discuss some stylized facts of urbanization and metropolitan areas in the United States. We provide a brief description of how the Real Estate space market and the Real Estate asset market operate.

Readings: Moretti (NGJ): Introduction; Chapter 1, "American Rust"; Chapter 2, "Smart Labor: Microchips, Movies, and Multipliers."
Supplementary: United Nations. 2019. "World Urbanization Prospects 2018: Highlights";
readings Frey, William. 2012. "Population growth in metro America since 1980: Putting the volatile 2000s in perspective."

Week 2 (1/26-1/28). Urban areas: Why do cities exist? Explaining urban growth

We examine some economic factors that explain the existence of cities, mainly agglomeration economies, and discuss the empirical evidence and mechanisms behind them. We then move to study urban growth/decline based on the concepts of city' economic base and the multiplier effect. To this end, we learn a labor market demand and supply framework.

Note: Thursday, 1/28 we will attend the ULI Emerging Trends Presentation via Zoom instead of class

Readings: Moretti (NGJ): Chapter 3, "The Great Divergence";
Chapter 4, "Forces of Attraction."
Ling and Archer: Chapter 1, "The Nature of Real Estate and Real Estate Markets"
Supplementary: Owen, David. 2004. "Green Manhattan";
Judis, John B. 2020. "It's the economies, stupid";
Badger, Emily. 2020. "Density is normally good for us. That will be true coronavirus too";
Davidson, Justin. 2020. "covid-19 data reveal that urban density is not the enemy."

Week 3 (2/2-2/4). Urban areas: Why do cities exist? Explaining urban growth cont. Location Quotient Class Exercise

We highlight stylized facts of the built-up area in a city, especially how density and building height vary as we move away from the city center. We then examine location choices of firms and workers within a city and introduce the monocentric city model to explain the tradeoff between commuting costs and demand for land in cities. We will understand bid-rent curves and how land consumption varies throughout a city.

Readings: Moretti (NGJ): Chapter 5, "The Inequality of Mobility and the Cost of Living";
Chapter 6, "Poverty Traps and Sexy Cities";
Chapter 7, "The New Human Capital Century."
Bertaud, Alain. 2015. "Spatial distribution of land prices and densities: The models developed by economists."

Weeks 4 (2/9-2/11). Urban areas: Location choice. The monocentric city model cont.

We highlight stylized facts of the built-up area in a city, especially how density and building height vary as we move away from the city center. We then examine location choices of firms and workers within a city and introduce the monocentric city model to explain the tradeoff between commuting costs and demand for land in cities. We will understand bid-rent curves and how land consumption varies throughout a city.

Readings: Ling and Archer: Chapter 5, "Market Determinants of Value"

Supplementary: The Economist. 2019. "Modern cities become less dense as they grow";
Shah, Neil. 2015. "The end of the suburbs and four other American migration myths."

DUE Thurs. 2/11: Assignment #1

Week 5 (2/16-2/18). Urban areas: Zoning and Government Intervention

We present an economic view on land regulation and explain the externalities associated with zoning policies. We then study the causes, characteristics and consequences of three types of zoning policies: use zoning, fiscal zoning and characteristics/design zoning. Lastly, we examine the consequences of growth controls, including land use control models and the urban growth boundary.

Readings: Ling and Archer: Chapter 4, "Government Control and Real Estate Markets"

Postrel, Virginia. 2007. "A tale of two townhouses";
suburbanization."

Fischel, William A. 1997. "Comment on Carl Abbott's 'The Portland region: Where cities and suburbs talk to each other and often agree'."

The Economist. 2015. Space and the city.

Grabar, Henry. 2016. The incredible shrinking megacity: How Los Angeles engineered a housing crisis.

Supplementary: Glaeser, Edward L., Matthew E. Kahn, and Jordan Rappaport. 2008. Why do the poor live in cities? The role of public transportation";

Week 6 (2/23-2/25). Urban areas: Suburbanization

We present suburbanization patterns in the United States and other developed countries, underscoring the main differences between both. We then examine the causes of suburbanization for firms and households such as transportation technology and the financing of public services. In preparation for the conclusion of this part of the course focusing on Urban Economics, we also will wrap up any necessary topics and review key concepts on Thursday.

DUE Tues. 2/23: Assignment #2

Week 7 (3/2-3/4). Midterm and Real Estate fundamentals: Introduction to Real Estate Development

MIDTERM EXAM Tues. 3/2

After the exam, we turn into the Real Estate asset market. We study the characteristics that makes Real Estate unique and the cyclical behavior of Real Estate markets. We also cover the stages of Real Estate development.

Readings: Ling and Archer: Chapter 23, "Development: The Dynamics of Creating Value"

Week 8 (3/9). Real Estate fundamentals: Determining value through the income approach

We will look at real estate income and expenses to determine net operating income and use this calculation to determine property values based on the direct capitalization approach. We will further examine cap rates and their role in establishing real estate market values.

Readings: Ling and Archer: Chapter 8, "Valuation using the Income Approach"

Week 8 – 9 (3/11-3/16). Real Estate fundamentals: Proformas and Real estate cash flow models

A proforma is as a document used to organize and forecast cash flow assumptions for a property. We discuss how the role of cash flows and time frame affect the structure of a proforma. We then study the main components of the proforma and focus on the key assumptions to build a proformas. These will be hands on classes building proformas using excel in class, be sure to have access to your computers from here on out.

Week 9 – 10 (3/18-3/25). Real Estate fundamentals: Time value of money (discount rate and present value)

Proformas have different time frames and cash flows over time. We investigate in detail the time frame component of proformas in order to standardize the value of an investment. We study compounding of interest rates and the concepts of present and future value. We examine how to incorporate opportunity costs, inflation and risk in the value of money over time. We introduce the concept discount rates and how these impacts real estate investing decisions.

Readings: Ling and Archer: Chapter 14, "Time, Opportunity Costs, and Value Decisions"

No Class Tuesday, 3/23

DUE Thurs. 3/25 **Submit final project team information (3-4 members and the metropolitan area you will invest in, offering a brief explanation of why you selected this market)**

Week 11 (3/30-4/1). Real Estate fundamentals: Mortgages and debt in proforma

We study the structure of mortgages and the most common types of mortgages. We go through applications of level-payment or self-liquidating mortgages in Excel. We continue analyzing debt service in the proforma and examining the concepts of leveraged and unleveraged cash flows.

Readings: Ling and Archer: Chapter 15, "Mortgage Calculations and Decisions"

Week 12 (4/6-4/8). Real Estate fundamentals: Financial ratios and valuation

We study the most common financial ratios used in Real Estate such as the cash-on-cash, the free and clear return and the debt constant. We continue examining other ratios that are important from the lender's perspective, such as the loan-to-value, the debt coverage and the break-even point. We then explain the concept of capitalization rate as a proxy for project value in Real Estate and the Internal rate of return (IRR) as a complementary measure of value.

Readings: Ling and Archer: Chapter 18, "Investment Decisions: Ratios" and Chapter 19 "Investment Decisions: NPV and IRR"

DUE Tues. 4/8: **Assignment #3**

Week 13 (4/13-4/15). Real Estate fundamentals: Finish up Fundamentals and Review for Midterm #2

As we wrap up the section of the course devoted to understanding real estate valuations and introducing the basic concepts of real estate investing, we will use this week to catch up on any remaining items and review the work we have done on these topics with additional in class exercises and looking at proformas if time permits.

Week 14 (4/20-4/22). Midterm Exam #2

The second midterm examination will take place on Tuesday, 4/20. The exam is not cumulative, only lectures after first midterm will be tested.

MIDTERM EXAM #2 Tues. 4/20

No Class Thursday, 4/22

Week 15 (4/27-4/29). Final Project Presentations

Please see detailed instructions on USC Blackboard. The goal is to pursue your first real estate investment using all of the tools we have studied in class. For this project you need to work in groups of 3-4 students. The assignment is due Tuesday 4/27 and includes a group presentation of approximately 10-12 minutes.

FINAL EXAMINATION: Due Wednesday, May 12th, 8:00 – 10:00 am.

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” 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, policy.usc.edu/scientific-misconduct.

Statement for Academic 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. *The Office of Disability Services and Programs - (213) 740-0776*
dsp.usc.edu

Sharing of course materials outside of the learning environment

USC has a policy that prohibits sharing of any synchronous and asynchronous course content outside of the learning environment. Please see below:

SCampus Section 11.12(B)

Distribution or use of notes or recordings based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study is a violation of the USC Student Conduct Code. This includes, but is not limited to, providing materials for distribution by services publishing class notes. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the Internet or via any other media. (See Section C.1 Class Notes Policy).

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call

studenthealth.usc.edu/counseling

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

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call

suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call

studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298

equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298

usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Campus Support and Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.