Introduction to Real Estate Finance and Development

Syllabus – Spring 2020 – TTh 10:00 a.m.-11:50 a.m. – 4 units, online

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Wednesdays 9:30 p.m. – 10:30 p.m.
Thursdays 6:30 a.m. – 7:30 a.m.
or by appointment
https://usc.zoom.us/j/4657329913

Course Description
This course introduces how individuals and real estate practitioners trade, lease, manage, develop, finance, and invest in real estate properties. We study these processes and the analytic methods that people use to make good real estate decisions. The course curriculum provides essential information for students interested in taking advanced real estate courses, planning careers in real estate, planning to buy a house, or intending to manage their income property portfolios.

Learning Objectives
The primary objective of this course is to understand the competition to obtain value from real estate. To meet this objective, you must learn how people organize their decisions to obtain satisfactory results. Understanding the principles introduced in this course will give you an advantage relative to those who do not have this knowledge.

The overarching learning outcome statement for the course is:

Be able to explain why—and in specific problems, how—better informed and more disciplined real estate analysts make better real estate decisions than their counterparts who are less informed and less disciplined.

Students completing this course will be able to

- Describe industry-standard terminology and techniques for valuing real estate properties, leases, and financing instruments such as mortgages,
- Do basic bond math: They will be able to calculate the present value of a cash flow through time, the internal rate of return for a given cash flow, the payment necessary to fully amortize a loan, the number of periods until a loan is paid off, and the remaining balance on a loan at a given point in time.
- Build spreadsheets for analyzing important real estate decisions,
- Assess the value of options in real estate,
- Explain the importance of taxes in real estate,
- Describe the economic determinants of property prices and rents, and
• Explain how land use regulations, design, finance, and economic projections affect development values and the highest and best use of a property.
• Describe the benefits and costs of the various ways companies doing business in real estate are legally organized.

Additional learning outcome statements appear in Real Estate Finance and Development: Learning Outcome Statements, Reading Notes, and Special Topics, which is posted as a PDF on Blackboard.

Required Materials
• Harris, Larry, Real Estate Finance and Development: Learning Outcome Statements, Reading Notes, and Special Topics. Available as a PDF on Blackboard.

Every student must have access to a financial calculator during each class session. I use a Hewlett-Packard 12C and will demonstrate its use in class. You may use any other financial calculator that you please, but if you have trouble using it, I may not be able to give you as much assistance as I can with the HP 12C.

During regular class sessions, you may use financial calculator apps on your smartphone or your laptop. Numerous apps are available from many sources—you can download HP 12c apps for any smartphone or computer operating system. They are either free or inexpensive.

For exams, you must bring an actual hand-held calculator that does not store text and does not connect to any electronic network. I regret this requirement, which helps ensure that nobody is tempted to cheat.

You should bring a laptop computer that can run Excel to the regular class sessions to build spreadsheets in class. You can use another spreadsheet program, but I may not be able to help you figure out how it works or where to find certain financial functions as I am primarily familiar with Excel.

You should regularly read the Wall Street Journal to follow stories involving real estate and mortgage market values and activities. The Los Angeles Business Journal is the best source for local news concerning real estate activity in the Los Angeles Region.

Supplemental Materials

Prerequisites and Credit for Business Majors
This course has no prerequisites. It is intended for non-business majors, but it is open to all majors. It is not available for credit as a senior options course for business majors or students in the real estate option.

Other Course Materials
Copies of various supplemental course materials will be available through your Blackboard account. I may use a password to protect some documents. If so, the password will be TradeOn. The password is case sensitive.

Course Delivery and Technology Issues
Lectures
This course will meet online over Zoom. Accordingly, you must have access to Zoom, a high-speed internet connection, and a video camera.

If you have technology and internet needs, contact:
- Marshall emergency funding resources at https://www.marshall.usc.edu/coronavirus/usc-marshall-student-emergency-aid-fund
- USC resources at basicneeds@usc.edu

I expect you to have your camera on during the synchronous sessions. Please advise me if you have circumstances under which you will not be able to meet these expectations. You can address most privacy issues by using virtual backgrounds and earphones of headsets.

All sessions will be recorded and made available over Zoom or in Blackboard.

You are not permitted to create your own audio or video class recordings without my permission. Violations of these policies will be met with appropriate disciplinary sanctions.

Blackboard and Slack
All examinations will occur online on Blackboard. I will post many course materials and announcements on Blackboard. Be sure that you can access Blackboard.

Most class communications and discussions will be on Slack. Be sure that you can access Slack.

Notes for Asynchronous Students
You may take this class asynchronously with my permission if you live in a highly inconvenient time zone. Please notify me by the end of the first week of classes if you would like to take the course asynchronously. Provide supporting documentation with the notification.

While I recognize the challenges of attending synchronous sessions in the middle of the night, I also believe that you will get more out of this class if you can attend synchronously. If you attend asynchronously, you will not participate in various trading games and class discussions. And you will require tremendous discipline to watch the taped class sessions attentively. Knowing that you might be called upon at random tends to focus the mind! If you naturally are a night-owl, the late hours may not be so difficult. But if not, I will work to ensure that you and other similarly situated students can excel.

Class participation will be 10% of the grade (see below). You will be able to meet this requirement by actively participating in course-topic discussions on Slack with your classmates and by staying in contact with me by phone. I generally am available as early as 7:00 a.m. PT and as late as 9:30 p.m., so finding a time to talk with me should not be difficult. I make myself available to everyone during these hours, so my availability will not be a special accommodation for you. I accept calls without an appointment but may not be available to talk if I am previously engaged.

We will have 20 quizzes—almost one each class session (see below). I can make those quizzes available to you after the class sessions, but I will need to provide additional checks that you and other similarly situated students are doing original work without the benefit of information about the quizzes gleaned from classmates. To this end, we will arrange to do several oral exams together during the semester. If, in my opinion, your performance on the oral exams is substantially worse than on the quizzes, I will assign your quiz grade based on the oral exams and not on the quizzes.
We will do three group projects during the semester (see below). One object of these projects is to mix students (I will assign students using an algorithm that minimizes the change that the same two students will ever be assigned to more than one project), so I will not assign groups based on time zones. Doing the work on these projects asynchronously will be challenging. I will request that in-time-zone students accommodate asynchronous students, but you will have to work to ensure that your needs are met. (You will have an opportunity to evaluate the other members of your project on this issue, and I will note your comments when assigning project grades.) You may have to participate in oral presentations during the regularly scheduled course session, but we can work something out if an in-session presentation is too much of a hardship.

Asynchronous students also can take the final exam asynchronously, but I would be much happier if you could sit for it with everyone else. If you take the final exam asynchronously, we will follow it with an oral exam as described above for the quizzes.
Grading Summary

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
<th>% of Overall Grade</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>Group projects</td>
<td>30</td>
<td>30%</td>
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<tr>
<td>Examinations</td>
<td>30</td>
<td>30%</td>
</tr>
<tr>
<td>Midterm: Bond Math Qualifier Exam</td>
<td>10</td>
<td>10%</td>
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<tr>
<td>Final exam</td>
<td>20</td>
<td>20%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>100</td>
<td>100%</td>
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Final course grades represent how you perform in the course relative to other students and my expectations for students in the course. I base course grades on each student’s performance, consistent with USC and Marshall School of Business policies, not on a mandated target. Historically, the grade point average for this course is about 3.3. I assign higher or lower average grades based on my perception of the overall performance of the class.

I consider four items when assigning class grades:

1. Your weighted-average standardized score for all exams and other exercises. Since exams inevitably vary in difficulty, I standardize the scores by subtracting the class mean and dividing the result by the class standard deviation. I average these standardized scores weighting by the contributions of each exam to the class grade. I base the standardization only on the scores of students who will receive non-failing class grades.
2. Your weighted-average exam and other exercise scores. This measure does not standardize the scores for each exam and exercise. I adjust the raw scores so that weights given to each examination reflect those in the table above.
3. Your rankings among all students in the class using the above two measures.
4. My impression of the overall achievement of the students in this class relative to that of other students in comparable classes that I have taught in the last few years or am presently teaching in other sections.

Class Participation

Class participation is a vital part of this course’s learning experience. The richness of the learning experience depends largely on the degree of preparation by all students before each class session and on their interactions in Slack outside of class. Your classmates and I expect you to prepare for all classes, actively participate in and meaningfully contribute to class discussions, and contribute to the discussions on Slack.

In-class participation is also a critical part of this course’s learning experience. I will cold call on you and your classmates to encourage active participation and gain multiple perspectives and viewpoints. I will base your in-class participation grade on your demonstrated willingness to participate and the quality of the comments you express rather than on their quantity. While some students are far more comfortable than others with class participation, all students should try to contribute meaningfully.

Students will offer their opinions in group settings many times in their careers; thus, class participation serves to prepare students for this business experience.

A primary course goal is to help you develop the ability to clarify your position on an issue and to articulate and defend it clearly. Sharing your views with others is crucial for learning and for understanding how people debate the diverse opinions that you will encounter in an organization. You will find yourself presenting and testing new ideas and assisting others in shaping their ideas as well. You should prepare to take risks and support others exploring new ideas.
Effective in-class participation consists of analyzing, commenting, questioning, discussing, and building on others’ contributions. Do not repeat facts or monopolize class time. Presenting your ideas concisely and persuasively and responding effectively to others’ ideas are key business skills. This course will help you sharpen those skills.

You cannot contribute to in-class discussions if you are not present. If you are taking the course asynchronously, be sure to participate regularly in discussions on Slack.

I will base my evaluation of in-class participation using the following criteria:

**Outstanding Contribution.** Your contributions reflect considerable preparation; they are substantive and supported by evidence from the case, readings, and logic. Your comments or questions create a springboard for discussion by making a critical insight. You synthesize and build upon what has already been said in the discussion. The class learns from you when you speak; in your absence, the discussions would suffer.

**Good Contribution.** You come prepared with substantiated comments. You demonstrate good insight and clear thinking. You connect to what has been said in prior discussion. The class notices when you are not part of the discussion.

**Minimal Contribution.** You participate but are unprepared. You rarely offer interesting insights into the discussion. It appears that you are not listening to what others are saying during discussion.

**No Contribution.** You say little or nothing in class. If you were not in the class, the discussion would not suffer.

To underscore the importance of participation, I allocate 10 percent of the course grade to class participation. I check to see who is on Zoom and for how long, who is watching the videos, and for how long, and I consider student contributions to Slack discussions.
Assignments, Examinations, and Grading Detail

Valuation Group Projects
You will participate in three valuation group projects during this course. I will assign the members of your three groups after the end of the third week of class. Each group will have three to four members.

The three projects will require valuations of an existing single-family home, a multi-unit apartment building, and a parcel of vacant land. I will provide you with information about the properties a few weeks before the projects are due. I encourage you to collect whatever additional information you believe would help you produce more reliable valuation estimates.

Your valuations will consist of reports prepared in Excel that you will email to me. Your group must submit your report before the 11:59 p.m. deadline to get full credit. Late reports will receive only half credit. The due dates appear in the course calendar below.

Your group report should include the following information in the following order:
1. Your assigned group name.
2. The names of your group members, in alphabetical order by last name.
3. The property address.
4. Your group’s point estimate of the value of the property.
5. A short written description of the method(s) that your group used to obtain your value estimate.
6. A list of the quantitative assumptions that you used to obtain your value estimate.
7. The quantitative calculations used to obtain your value estimate.
8. A written discussion of the uncertainties associated with your value estimate.
9. An analysis of the uncertainty associated with your value estimate.

If your valuation depends on a statistical analysis involving more than a few data lines, put the data and the statistical analysis on a second sheet within the workbook.

I posted a simple example of a valuation project on Blackboard.

I will grade the quality of the project using the following rubric:
1. Choice of appropriate valuation method(s) 20%
2. Dept of analysis – identification of relevant valuation issues 20%
3. Quality and accuracy of valuation analyses 20%
4. Quality and breadth of any supporting data analyses 10%
5. Clarity of written presentation 20%
6. Clarity of oral presentation 10%

I will base your combined grade on the three projects on
1. the quality grades I assign for the three projects in which you participate, and
2. the confidential assessments made by your group colleagues of the strengths of your contributions to the group projects.

I will do several statistical analyses to ensure that your grade accurately represents your contribution to each project.

I will assign an average project quality grade specific to you based on estimates of a fixed-effects regression model in which I will estimate the mean quality grade for your projects that accounts for variation associated with your fellow teammates and across the three project assignments. I will use the following fixed effects regression model:
\[ ProjectQualityGrade_{ai} = \text{Student}_i + \text{Assignment}_a + e_{ai} \]

where \(a = 1, 2, 3\) indexes the three assigned projects and \(i = 1\) to \(n\) indexes the \(n\) students in the class. Your adjusted project quality grade will be the estimated value of \(\text{Student}_i\) for you.

For each project, I will ask you to provide a quantitative assessment of the contributions of your team members using a questionnaire that characterizes intellectual and organizational leadership, research input, contribution to the project output, and collegiality. I also will ask you to write out the main contributions of each of your peers. You will submit this information to me over the internet following the completion of each project.

After considering the contribution statements, I will evaluate your contribution to the project by averaging your peers’ quantitative assessments of your contribution across all projects. To this end, I will use a fixed effects regression model in which I will estimate your mean contribution that accounts for variation in how each student rates other students across all three projects, variation specific to your project, and variation across the three assigned projects. I will use the following fixed effects regression model:

\[ Contribution_{aijg} = \text{Student}_i + \text{StudentEvaluator}_j + \text{Assignment}_a + \text{Group}_g + e_{aijg} \]

where \(g = 1\) to \(3k\) will index each group project with \(k\) being the number of groups per assignment, and \(j = 1\) to \(n\) indexing the \(n\) students in the class. Your adjusted project contribution will be the estimated value of \(\text{Student}_i\) for you.

In fairness to all students, you may not discuss how you will evaluate any of your peers. You should base your evaluation of your peers on your impressions only. In no event should you come to any agreements with your peers about how you or they will evaluate any student.

In addition to asking you about your peers’ contributions to the project, I will also ask you about the confidence you have in your assessments. Accordingly, if you do not know the contribution of a peer—perhaps because you were sick and did not observe the peer’s contribution, you will have an opportunity to tell me that your opinion is not well-founded. I will adjust the weights in the regression to reflect any concerns I may have about the reliability of a reported contribution.

I will compute your grade on the three projects as the product of your adjusted project quality grade and your adjusted project contribution evaluation, after standardizing both scores to a mean of 10 and a standard deviation of 2.5 across all students in the class. I may adjust the results upwards or downwards if I believe that the aggregate class has performed better or worse than my expectations for this exercise.

Finally, I will reduce your total project grade by one third for every peer evaluation that you do not submit on time.

I designed these statistical methods to minimize the impact on your grade of variation in the contributions of the other members in your group. The grading scheme maximizes the individual incentives to cooperate to maximize the quality of your group reports.

**Examinations**

The examination dates will not change. Please check now to see that you do not have any conflicts.

The examinations will consist of constructed answer (essay, one-sentence, one word, calculation) questions or multiple-choice questions. I have not used multiple-choice questions in the past but may do so this year. I structure the exams so that well-prepared students usually finish well before the end of the
allocated time. Less-prepared students generally do not feel time pressure on my exams, but most wish that they had spent more time studying before the exams.

The final examination will be cumulative. I occasionally reuse questions from previous quizzes that I gave you—especially when poor performance on an important question suggests that students did not give as much attention studying a topic as I believe it merited. Accordingly, I strongly recommend that you review your graded quizzes to ensure that you can correctly answer questions that you missed in the past.

When writing quizzes and exams, I always refer to the detailed list of the learning outcome statements posted on Blackboard. Every question on a quiz or exam will involve knowledge identified by one or more of these learning outcome statements.

Old examinations with answers are posted on Blackboard. I do not post exams with multiple-choice questions.

I award partial credit on constructed answers when I can see that your answer is at least partly correct. Accordingly, present your work neatly so that I can follow it. How much partial credit I award depends on the importance of your mistake and on whether I believe that you should have seen that your answer is obviously incorrect. If casual inspection of your answer shows that it is obviously incorrect, I award little or no partial credit. Accordingly, always check to ensure that your answer is reasonable.

For example, you are supposed to know that the present value of a series of positive payments is always less than the sum of the payments (when the discount rate is positive as it should be). If a question asks for the present value of a series of payments and your answer is greater than the sum of the payments, I will award little or no partial credit for your answer regardless of the quality and presentation of your calculation method and the nature of your mistake. In this case, if the sum of the payments were easily computed (as it generally would be), I would award no partial credit because the answer obviously would be incorrect.

**The Bond Math Qualifier Exam**

The Bond Math Qualifier is the midterm exam. It will include one or two sets of only five questions. These five questions test whether you can solve the five archetypal bond math problems that underlie all discounted cash flow problems that appear in this course. Each question will require that you can properly use one of the five solution buttons on your calculator. The skills necessary to solve these questions are essential to understanding real estate finance. You will need to use these skills for many other exams.

The five questions will be specific examples of the following related questions:

1. What is the periodic payment for a fixed-rate mortgage loan with a given principal, term, annual nominal interest rate, payment period (year, quarter, month, or week), and end-of-term principal value?

2. At a specified time T1, what is the remaining balance of the loan, assuming that the borrower made all payments when due?

3. At a specified time T2 (earlier than T1), what is the present value of the remaining payments at a given discount rate, assuming that the borrower will repay the loan at time T1?

4. If the borrower must pay a given loan origination fee (points) to obtain the mortgage loan, or an early payment fee to repay the mortgage early, or both, what is the effective annual nominal rate
of the loan assuming that the borrower repays the loan at time T1?

5. If from the beginning, the borrower pays more than the required payment per period, after approximately how many years and periods will the borrower repay the loan?

I posted three sets of examples of these questions, along with their answers in the Blackboard Content folder. At least four additional sets of these questions appear in the Spring 2018 Midterm and the Spring 2019 and Spring 2020 Bond Math Qualifier Midterms. I posted these exams and their answers in the Blackboard old examinations folder.

Since this Bond Math Qualifier midterm is worth 10% of the course grade, and since many students will answer all questions perfectly and thus score 100% on the midterm, you will want to make sure that you are well prepared so that you also can answer them correctly. If you cannot correctly answer these questions, your course grade will suffer substantially. If most students get excellent grades on the Bond Math Qualifier Exam, and you do not, the effective weight on this examination in your course grade will be higher than the nominal 10%.

Although doing well on the Bond Math Qualifier Exam is important to your grade, you need not be anxious about the exam if you are well-prepared. The knowledge necessary to achieve 100% is well known and finite, you have at least seven sets of example questions with solutions posted on Blackboard, similar problems appear in the textbook and in the problems at the end of each chapter, I will provide examples in class, and I will provide substantially more time to complete the exam than any well-prepared student should require.

Class Sessions and Preparation

Most of our class sessions will be “inverted.” We will use the class sessions primarily for group and class discussions, problem-solving exercises, and an occasional game. To get the most benefit from the class sessions, you should come to class well prepared. Read the assigned readings and watch any associated videos before class. These preparatory assignments appear in the course calendar below.

I occasionally will lecture on topics that do not appear in the textbook or to highlight issues in the text. If these topics appear in the list of learning outcome statements, they may appear on your examinations.

Some Comments about Work Habits

Good discipline is a key attribute of successful businesspeople. Working independently toward a goal is vital to career success because supervisors often do not have the time or the desire to manage their subordinates closely. And good discipline is essential for entrepreneurs who have no supervisors.

Homework

The homework assignments appear below in the course calendar section of this syllabus. I will not collect the homework assignments, but you should prepare these problems before class because we will often address them in the class sessions.

Evaluation of Your Work

I will do my best to make my expectations for the various exams clear and to evaluate your answers as fairly and objectively as I can. If you feel that an error has occurred in the grading of any question, you may, within one week of the date the exam is returned to you, write me a memo in which you request that I reevaluate the assignment. Attach the original exam to the memo and fully explain why you think I should regrade the question. Be aware that the reevaluation process can result in three types of grade adjustments: positive, none, or negative.
USC Marshall Critical Thinking Initiative

The USC Marshall Critical Thinking Initiative is a school-wide effort to improve your critical thinking skills so that you can be more successful problem solvers in class and the workplace. In this course, you will engage in many learning activities to develop and apply your critical thinking skills in a disciplined manner so that you can outperform others to get your desired job and excel further in your career. Your ability to think critically is an important part of the evaluation/grading process in this course.
Marshall Guidelines

Add/Drop Process

Most Marshall classes are open enrollment (R-clearance) through the Add deadline. If an open seat is available, students can add the class using Web Registration. If the class is full, students will need to continue checking the Schedule of Classes (https://classes.usc.edu/) to see if space becomes available. Students who do not attend the first two class sessions may be dropped from the course if they do not notify the instructor before their absence.

Further, if you are absent six or more times before March 5, 2021 (the last day to withdraw from a course with a grade of “W”), I may ask you to withdraw by that date. These policies maintain professionalism and ensure a system that is fair to all students.

Marshall Grading Guidelines

Assignment/Exam Grading Policy: As the instructor, I determine what qualifies as an accurate grade on an assignment, exam, or another deliverable, and my evaluation of the performance of each student is the final basis for assigning grades for the class. I may delegate some grading to assistants, but I remain responsible for all grades.

I adhere to the following Marshall School standards for undergraduate grading:

- **A** Excellent quality work
- **B** Good quality work
- **C** Fair quality work
- **D** Work of minimum passing quality
- **F** This grade is awarded to any undergraduate student failing to meet the minimum standards for passing the course. The grade of F indicates that the student failed at the end of the semester or was doing failing work and stopped attending the course after the twelfth week of the semester.

Plus/minus grading (A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F) increases the basic five grades to a total of twelve possible levels of performance.

I interpret these standards as follows:

- **A** Mastery of course concepts, tools, and techniques, plus a solid understanding of implications, applications, and interrelationships. Ability to apply and express that understanding with meaningful oral and written language.
- **B** Solid understanding of course concepts, tools, and techniques, plus knowledge of implications, applications, and interrelationships. Capability to converse effectively in the terminology of the course.
- **C** Knowledge of course fundamentals. Basic understanding or awareness of finer points of course and discipline. Meets minimal expectations for learning in the course.
- **D** Weakly grasps the essentials of the course with little understanding of the finer points.
- **F** Unable to communicate an understanding of the basic concepts, tools, or techniques of the course. A failure to measure up to the basic course output goals.

Retention of Graded Coursework

I retain final exams and all other graded works that affect the course grade for one year after the end of
the course if I have not returned the graded work to the student. If I returned graded work to you, you are responsible for filing it.

Returned Papers
To protect the confidentiality of your work, you must pick up your own graded paperwork. I will not give your papers to anyone else. Students who miss class sessions when I return paperwork must come to office hours or arrange an appointment to retrieve the material.

Marshall Technology Policy
Laptop and Internet usage is not permitted during academic or professional sessions unless otherwise stated by the respective professor or staff. The use of other personal communication devices, such as cell phones, is considered unprofessional and is not permitted during academic or professional sessions. ANY e-devices (cell phones, iPads, other texting devices, laptops, I-pods) must be completely turned off during class time unless the device is required for the session. Upon request, you must comply and put your device on the table in off mode and FACE DOWN. You might also be asked to deposit your devices in a designated area in the classroom. Videotaping faculty lectures is not permitted due to copyright infringement regulations. Audiotaping may be permitted if approved by the professor. The 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” 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.

I take my responsibility to promote good academic and personal contact seriously. Regrettably, my past reports of reportable offenses (and those of my colleagues) have led to serious consequences for irresponsible students.

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 suicidepreventionlifeline.org
Provides 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 and 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, or 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. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298 usc-advocate.simplicity.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.

USC Support and Advocacy - (213) 821-4710 uscsa.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](http://dps.usc.edu), or [emergency.usc.edu](http://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](http://dps.usc.edu)

Non-emergency assistance or information.

**Office of Disability Services and Programs -** (213) 740-0776 [dps.usc.edu](http://dps.usc.edu), [ability@usc.edu](mailto:ability@usc.edu).

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. 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. 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 ([dps.usc.edu](http://dps.usc.edu)) 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. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday.

**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 that 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](http://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. 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.
COURSE CALENDAR

Readings, Class Sessions, and Homework Assignments

All examinations will take place as scheduled. You should do the homework assignments before class starts. The three valuation group projects are due at 11:59 p.m. on the days indicated below.

I may modify the topic schedule to meet the needs and interests of the class.

“Harris” below refers to Real Estate Finance and Development: Learning Outcome Statements, Reading Notes, and Special Topics, by Larry Harris, which you can find on Blackboard. This document contains my introductions to the readings in our course textbook, Real Estate Finance and Investments, by William Brueggeman and Jeffrey Fisher. It also includes many important special topics and some explanations of difficult passages in the textbook. Most importantly, it includes my detailed list of learning outcome statements (“LOSs”) for each chapter. The introductions and my LOSs will help you better organize your reading of the textbook.

“B&F” below refers to our textbook, Real Estate Finance and Investments, by William Brueggeman and Jeffrey Fisher.

The course meetings will involve discussions, exercises, and lectures. When I lecture, I will primarily reinforce and expand upon the lessons in the readings. I often will not review them as I will assume that you have done the readings. You must read and study the assigned readings and watch any associated videos before coming to class.

Read the financial press every day. Come to class prepared to discuss current events in the markets. At a minimum, you should read The Wall Street Journal for stories about real estate, interest rates, taxes, and other factors that affect real estate values. The business sections of the New York Times, The Financial Times, and Investor’s Daily are also very good. Try reading the finance section of The Economist and any relevant special reports. Serious professionals follow current events in their industry. Be a real estate industry professional, if only for the next 16 weeks. Reading the news will help you get more out of this course and out of our class discussions.

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>Jan 19</td>
<td>T Introduction</td>
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<tr>
<td>Jan 21</td>
<td>Th Basic Legal Concepts</td>
<td>Read Harris Chapters 0-2</td>
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<td>Start bringing your calculator!</td>
<td>Read B&amp;F Chapters 1 &amp; 2</td>
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<td>Jan 26</td>
<td>T Mortgage Loan Foundations: The Time Value of Money</td>
<td>Read Harris Chapter 3</td>
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<td>Read B&amp;F Chapter 3</td>
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<td>Prepare B&amp;F Chapter 3 problems 1, 3, 5</td>
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<tr>
<td>Jan 28</td>
<td>Th More Bond Math</td>
<td>Prepare B&amp;F Chapter 3 problems 7, 9, 11</td>
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<td>Feb 2</td>
<td>T Review of Bond Math</td>
<td>Prepare B&amp;F Chapter 3 odd-numbered problems 13, 15, 17</td>
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<td>Feb 4</td>
<td>Th Fixed Interest Rate Mortgage Loans</td>
<td>Read Harris Chapter 4</td>
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<td>Read B&amp;F Chapter 4</td>
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<td>Prepare B&amp;F Chapter 4 problems 1, 3, 5, 7, 9</td>
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<td>Adjustable and Floating Rate Loans</td>
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<td>Mortgages: Additional Concepts, Analysis, and Application</td>
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<td>Feb 16</td>
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<td>No-Class: USC Wellness Day</td>
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<td>Review of Mortgages</td>
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<td>Single-Family Housing: Pricing, Investment, and Tax</td>
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<td>Mar 2</td>
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<td>Underwriting and Financing Residential Properties</td>
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<td>Review of Single-Family Housing</td>
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<td>Mar 7</td>
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<td>Single Family Home Valuation Group Project Due</td>
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<td>Mar 9</td>
<td>T</td>
<td>Income Producing Property: Leases, Rents, and the Market</td>
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<td>Valuation of Income Properties: Appraisal and the Market</td>
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<td>Apr 1</td>
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<td>Risk Analysis</td>
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<td>Apr 6</td>
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<td>Multifamily Housing Valuation Group Project Due</td>
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<td>Financing Corporate Real Estate Winner’s Curse Game</td>
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<td>Structuring Real Estate Investments: Organizational Forms and Joint Ventures</td>
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<td>Apr 25</td>
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<td>Vacant Land Parcel Valuation Group Project Due</td>
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<td>Real Estate Securities and Funds Overview</td>
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<td>Apr 29</td>
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<td>Course Review</td>
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<td>May 11</td>
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<td>Final Examination, 11:00 a.m. – 1:00 p.m.</td>
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<td>May 15</td>
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<td>University Commencement</td>
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</tbody>
</table>
CONTACT INFORMATION

Addresses and Telephone Numbers

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Fred V. Keenan Chair in Finance (323) 933-0888 home
USC Marshall School of Business (213) 740-6496 office
Hoffman Hall 806
Los Angeles, CA 90089-0804

LHarris@USC.edu
LarryHarris.com

You may call me at home, but please not before 7:00 a.m., after 9:30 p.m., on Friday night, or Saturday.

How to Reach Me

1. Drop-in during office hours—no appointment is necessary. I will keep office hours on Zoom at https://usc.zoom.us/j/4657329913. If you cannot find me on Zoom, give me a call.

   My office hours this semester are:
   - Monday 2:00 p.m. – 3:00 p.m.
   - Wednesday 9:30 p.m. – 10:30 p.m.
   - Thursday 6:30 a.m. – 7:30 a.m.

2. Arrange to meet me by appointment.

3. Call me on the telephone. If you leave a message, please speak slowly and clearly when you give your phone number. You may call me at home or on my cell phone. Please do not call me at home before 7:00 a.m., after 9:30 p.m., on Friday night, or Saturday.

4. Arrange to dine with me (on Zoom) before or after class. Consider inviting your classmates too.

5. Send me an email at LHarris@USC.edu. While I am always happy to answer course topics, I prefer to respond orally rather than by email. The opportunity to listen and respond appropriately usually produces more effective learning. If you have course topic questions, consider posting them to Slack where a classmate may answer the question first, and where everyone can see my responses.