Syllabus-FINA 467 Real Estate Finance
Fall 2016

**Instructor:**
Yongqiang Chu,
456A, Moore School of Business
Email: yongqiang.chu@moore.sc.edu
Tel: 803-777-5960
Office hour: 11:00-12:00 M, W or By Appointment

**Textbook**
Required: Commercial Real Estate Analysis & Investments (3e), by Geltner, Miller, Clayton and Eichholtz
Recommended: Real Estate Finance and Investments (14e), by Bruegeman and Fisher

**Top Hat**
We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.

You can visit the Top Hat Overview (https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.

An email invitation will be sent to you by email, but if don’t receive this email, you can register by simply visiting our course website: https://app.tophat.com/e/590437

Note: our Course Join Code is 590437
Top Hat will require a paid subscription, and a full breakdown of all subscription options available can be found here: www.tophat.com/pricing.

Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

Course Description
The course introduces basic elements of real estate Finance. It begins with a comprehensive introduction of mortgage from the perspective of capital market investors. The mortgage basics are then used in investment analysis of income producing properties. The public debt and equity are introduced in the third part of this course.

My objectives of this course are:
_ to give you an adequate understanding of real estate finance as it is practiced today
_ to help you learn how to conceptualize issues to prepare you for the unforeseen challenges of tomorrow
_ to help you gain necessary skills for careers in real estate finance

Prerequisite
1. FINA 363

I assume you can solve the following from FINA 363: Extremely important

- Time Value of Money
- Present Value
- Future Value
- Annuity Calculations
- Amortizations
- Bond Valuations
- Stock Valuations
- Weighted Average Cost of Capital Calculations
• Capital Budgeting Techniques, including NPV, IRR, MIRR, etc.

2. A clear understanding of the time value of money concept. (Knowing how to use a financial calculator to solve the time value of money problem, but without a clear understanding of the underlying concepts is not sufficient for taking this course.)

3. Basic algebra. (Symbolic algebraic operations required)

This is a quantitative, technical and difficult course, we are going to mainly deal with numbers and computations.

Frequently Asked Questions:

• Can I pass this class without reading the book? No
• Can I pass this class without attending the class discussions? No
• If I miss a class, will the professor make-up the missed class for me? No
• Does the professor curve grades in this class? No
• Should I wait until the night before an exam to study for this class? No
• Are the points earned at the end of the semester worth more than points earned at the beginning of the semester? No
• Does begging for a higher grade at the end of the semester help in this class? No
• Is the professor in this class responsible for my grade in this class? No
• Does “whining” work in this class? Absolutely No
• Are there any “extra credit” assignments in this class? NO
• Is there any way that I can pass this class WITHOUT learning the material? NO

Communication
Email will be the primary communication tool I will use. Please make sure that your email address in the blackboard system is correct.
Please indicate in the subject line the course number (FINA 467) whenever you send me an email, otherwise I will be very likely to ignore your emails.

**Learning Outcomes**
After completing this course, the students should be able to

1. Do basic mortgage computations
2. Do cash flow analysis of simple real estate investment projects
3. Analyze the pros and cons of debt investment vs equity investment
4. Understand the basic mechanism of mortgage backed securities and to price simple structure of mortgage backed securities

**Lectures**
I will post lecture notes on the blackboard one or two days before class. You should print the lecture notes and bring it to class. Lecture notes are very important, however, reading the lecture notes without attending the lectures may be misleading and I am not responsible for that.

**Please read relevant book chapters before coming to the class**

You will need either a financial calculator or a laptop with MS excel.

I do not teach how to use a financial calculator.

Calculator tutorial:

http://www.tvmcalcs.com/calculator_index


Each student is allowed three unexcused absences from class period. Each absence in excess of three will
result in a one-letter grade reduction in the final grade.
I will enforce the policy by using the tophat attendance.

Quizzes
We will have unannounced quizzes at the beginning of the classes. These quizzes are meant to check whether you have read the chapters before class. The quizzes will be administered via Tophat. If you attend the classes and answering all the questions, you will get up to 5 extra points towards your final grade.

Assignments
You have to follow the rules below in preparing your assignments
1. You should independently work on your assignments. Plagiarism of any kind will not be tolerated. When detected the first time, you will receive a warning and a one-letter grade reduction in your final grade. When detected the second time, you will receive an “F” in your final grade.
2. You can either type it or hand write, but you must submit a hard copy unless required otherwise
3. Please write top to bottom and left to right, and write succinctly and clearly. (Points will be taken for messy assignments)
4. Circle the final answers. (It is your responsibility to make sure that I can find the answers)
5. Assignments have to be turned in before class on the due date. No late assignment

I will return your assignments in about one week after submission, and at the same time I will post your assignment grades on Blackboard. It is your responsibility to check whether there are discrepancies of your grades, and you should let me know within two weeks. (I will not make any changes on the grades two weeks after posting)

(I am expecting you to spend at least 6 hours every week outside the classroom on this course.)
**Exams**

There will be two exams, one mid-term and one final. Exams will be based on the book, lecture notes, assignments and discussion notes. The final exam will be cumulative.

I will give a sample midterm exam before the actual midterm.

**Plagiarism in exams will lead to an “F” of the course**

However, I will not provide a sample final.

**READ THIS: DO NOT ask for extra credit of any kind. Violation of this policy will result in a one letter grade deduction in the student’s final grade, per incident.**

**Grades**

<table>
<thead>
<tr>
<th>Participation</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Midterms</td>
<td>30%</td>
</tr>
<tr>
<td>Final</td>
<td>45%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100 Points</td>
</tr>
<tr>
<td>B+</td>
<td>85-89 Points</td>
</tr>
<tr>
<td>B</td>
<td>80-84 Points</td>
</tr>
<tr>
<td>C+</td>
<td>75-79 Points</td>
</tr>
<tr>
<td>C</td>
<td>70-74 Points</td>
</tr>
<tr>
<td>D+</td>
<td>65-69 Points</td>
</tr>
<tr>
<td>D</td>
<td>60-64 Points</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60</td>
</tr>
</tbody>
</table>

Note: Your grades are what you earn in this course, not what I gave. **I do not curve the grades.**

**Course Outlines**

(Tentative and I reserve the right to revise it as we go along)

Part I Introduction and Overview of Real Estate Capital Market

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Chapter</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 1 (8/24)</td>
<td>Logistics and Introduction (Real Estate and the Financial Crisis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lecture 2 (8/29)</td>
<td>Overview of the Real Estate Capital</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
### Part II Mortgage and Mortgage Backed Securities

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 4  (9/7)</td>
<td>Mortgage Basics</td>
<td>16</td>
</tr>
<tr>
<td>Lecture 5  (9/12)</td>
<td>Mortgage Computation (I)</td>
<td>17</td>
</tr>
<tr>
<td>Lecture 6  (9/14)</td>
<td>Mortgage Computation (II)</td>
<td>17</td>
</tr>
<tr>
<td>Lecture 6  (9/19)</td>
<td>Yield to Maturity and Mortgage Valuation</td>
<td>17</td>
</tr>
<tr>
<td>Lecture 7  (9/21)</td>
<td>Refinancing</td>
<td>17</td>
</tr>
<tr>
<td>Lecture 8  (9/26)</td>
<td>Mortgage Default</td>
<td>18</td>
</tr>
<tr>
<td>Lecture 9  (9/28)</td>
<td>Residential mortgage underwriting</td>
<td>BF 8</td>
</tr>
<tr>
<td>(10/3)</td>
<td>Review</td>
<td></td>
</tr>
<tr>
<td>(10/5)</td>
<td>Midterm</td>
<td></td>
</tr>
<tr>
<td>Lecture 10 (10/10)</td>
<td>Mortgage Backed Securities (1)</td>
<td>BF 19</td>
</tr>
<tr>
<td>Lecture 11 (10/12)</td>
<td>Mortgage Backed Securities (2)</td>
<td>BF 19</td>
</tr>
<tr>
<td>Lecture 12 (10/17)</td>
<td>CMOs</td>
<td>BF20</td>
</tr>
<tr>
<td>Lecture 13 (10/19)</td>
<td>CMBS</td>
<td>20</td>
</tr>
</tbody>
</table>

### Part III Real Estate Investment Analysis

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 14 (10/24)</td>
<td>Lease and Leasing Strategies</td>
<td>30</td>
</tr>
<tr>
<td>Lecture 15 (10/26)</td>
<td>Real Estate Cash Flow Pro Forma and Valuation</td>
<td>10,11</td>
</tr>
<tr>
<td>Lecture 16 (10/31)</td>
<td>After Tax Investment Analysis</td>
<td>13</td>
</tr>
<tr>
<td>Lecture 17 (11/2)</td>
<td>Alternative Financing and Investment Analysis</td>
<td>BF 12</td>
</tr>
<tr>
<td>Lecture 18 (11/7)</td>
<td>The Effect of Leverage on Real Estate Investment</td>
<td>14</td>
</tr>
<tr>
<td>Lecture 19 (11/9)</td>
<td>Real Estate Capital Structure Theory</td>
<td>15</td>
</tr>
</tbody>
</table>

### Part IV Other Topics

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 20 (11/14)</td>
<td>Limited Partnerships</td>
<td>BF 18</td>
</tr>
<tr>
<td>Lecture 21 (11/16)</td>
<td>REITs</td>
<td>23</td>
</tr>
<tr>
<td>Lecture 22 (11/21)</td>
<td>Real Estate portfolio Theory</td>
<td>21</td>
</tr>
<tr>
<td>(11/28)</td>
<td>In Class Exercise</td>
<td></td>
</tr>
</tbody>
</table>
Policies

Academic Honesty: All college and department policies on academic honesty will be strictly enforced. The Student Handbook and Policy Guide establishes rights to which the student is entitled and the responsibilities, which the student must assume. Along with preparing for and attending class, each student has the responsibility of promoting high academic standards. Academic dishonesty includes: (a) cheating, (b) fabrications and falsifications, (c) multiple submissions, (d) plagiarism, (e) complicity in academic dishonesty. Inappropriate classroom behavior may result in the student being withdrawn from the class.

Rule of Academic Responsibility (Directly from the Student Handbook)
It is the responsibility of every student at the University of South Carolina Columbia to adhere steadfastly to truthfulness and to avoid dishonesty, fraud, or deceit of any type in connection with any academic program. Any student who violates this rule or who knowingly assists another to violate this rule shall be subject to discipline.

This Rule is intended to prohibit all forms of academic dishonesty and should be interpreted broadly to carry out that purpose. The following examples illustrate conduct that violates this Rule, but this list is not intended to be an exhaustive compilation of conduct prohibited by the Rule.

1. Giving or receiving unauthorized assistance, or attempting to give or receive such assistance, in connection with the performance of any academic work.
2. Unauthorized use of materials or information of any type or the unauthorized use of any electronic or mechanical device in connection with the completion of any academic work.
3. Access to the contents of any test or examination or the purchase, sale, or theft of any test or examination prior to its administration.
4. Unauthorized use of another person’s work without proper acknowledgment of source.
5. Intentional misrepresentation by word or action of any situation of fact, or intentional omission of material fact, so as to mislead any person in connection with any academic work (including, without limitation, the scheduling, completion, performance, or submission of any such work).
6. Offering or giving any favor or thing of value for the purpose of influencing improperly a grade or other evaluation of a student in an academic program.
7. Conduct intended to interfere with an instructor’s ability to evaluate accurately a student’s competency or performance in an academic program.

An academic program includes any graduate and undergraduate course, independent study or research for academic credit, laboratory, internship, externship, clinical program, practicum, field placement, or other form of study or work offered in furtherance of the academic mission of the University. Academic work includes any work performed or assigned to be performed in connection with any academic program.
This Rule applies to all students of the University of South Carolina Columbia whether full-time or part-time.

A person’s knowledge or intent may be inferred from the circumstances of an alleged violation.

Whenever a student is uncertain as to whether conduct would violate this Rule, it is the responsibility of the student to seek clarification from the appropriate faculty member or instructor prior to engaging in such conduct.

**Attendance:** Consistent with University Policy as stated in the Student Handbook. Each student is allowed three (3) unexcused absences from class period. Each absence in excess of three will result in a one-letter grade reduction in the final grade. Think of this class as your job – arrive on time and be prepared to participate. All student activities associated with university events (sports absences, student activities requiring absence from the university, etc.) are considered excused, but MUST be cleared with the professor PRIOR to their occurrence.

**Americans With Disability Act:** Every reasonable attempt will be made to remove any physical barrier, which may hamper the ability of an individual to learn in this classroom. Anyone who has a physical or learning limitation that would impact attendance, preparation, participation, or timely completion of assignments should feel welcome to discuss this limitation with the professor at the beginning of the semester.

**Dropping the Course:** College policies will be followed. Please consult the schedule for exact dates for dropping a course without penalty.