George Mason University  
School of Business  
Spring 2015  
Finance 451- Real Estate Finance  
Class Time: Tuesday 7:20 PM to 10:00PM

Instructor: Dr. George H. K. Wang**  
Room 223, Enterprise Hall, Phone: 703-993-3415  
Fax: 703-993-1870  
E-mail: Gwang2@gmu.edu  
Office Hours: Tuesday 3:30PM-4:30PM; Thursday 3:30PM–4:30PM or by Appointment (lecture notes and assignments are available in Blackboard)

Text:  
Brueggeman W. B and Fisher, J. D, Real Estate Finance and Investment  
2011 (14th ed. edition), McGraw- Hill (required)  
Financial calculator, excel and proficiency in using both.

Prerequisites: FNAN 301 and FNAN 351.

Objectives: This course provides an in-depth examination of real estate investing and financing decisions. It will build on concepts, models, and analytical approaches developed in the prerequisite courses. While the focus is on decisions, the course will also cover institutional material that is important for understanding real estate assets and markets. The course will emphasize income-producing real estate, but some attention will be devoted to issues involving owner-occupied housing.

At the end of the course, students should be able to:

- develop and analyze information for projecting the performance and risks of real estate assets;
- use appropriate techniques for analyzing decisions about the acquisition and disposition of real estate assets;
- analyze the effects of alternative approaches for financing specific investments in real estate;
- understand the advantages of alternative structures for organizing the ownership of real estate;
- examine the suitability of real estate investments from the perspective of specific investors.

**Outside Readings:**
1. Wall Street Journal, Investor’s Business Daily,

2. Web App boxes in some chapters of the text book provide exercise that requires finding relevant information on the internet. The resources obtained from internet provide readers with opportunity to remain current on many real estate topics.

**Examination Policies:**
(1) Grading standards:

<table>
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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>In-Class Tests</td>
<td>40%</td>
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<td>Final exam</td>
<td>45%</td>
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<tr>
<td>problem sets</td>
<td>15%</td>
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<td>Total</td>
<td>100%</td>
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(2) Use of (+, -) grades and Types of exams: short essay on fundamental concepts and problem-solving questions.

**Course Outline and Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics [Chapters (Brueggeman and Fisher (2011))]</th>
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<tbody>
<tr>
<td>1. 1/20</td>
<td>Real Estate Investment: Basic legal Concepts(Chapter1); Real Estate Financing: Notes and Mortgages (Chapter2); Mortgage Loan Foundations: The Time Value of Money (Chapter 3)</td>
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<td>2. 1/27</td>
<td>Fixed Interest Rate Mortgages Loans (Chapter 4) and Adjustable and Floating Rate Mortgage Loans(Chapter 5)</td>
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<td>3. 2/3</td>
<td>Adjustable and Floating Rate Mortgage Loans (Chapter 5) and Mortgages: Additional concepts , Analysis and Applications( Chapter 6)</td>
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<tr>
<td>4. 2/10</td>
<td>Mortgages: Additional Concepts, Analysis and Applications( Chapter 6)</td>
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<td>5. 2/17</td>
<td>Single Family Housing : Pricing , Investment and Tax consideration (Chapter 7)</td>
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<td>6. 2/24</td>
<td><strong>First in-house examination</strong> (one hour and twenty Minutes) and Underwriting and Financing Residential Properties (Chapter 8)</td>
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<td>7. 3/3</td>
<td>Underwriting and Financing Residential Properties (Chapter 8) Income-Producing Properties: Leases, Rents and the Market for Space (Chapter 9)</td>
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8. 3/9-3/15  Spring Recess

9 3/17  Income- Producing Properties: Leases, Rents and the Market for Space (Chapter 9) and Valuation of Income properties: Appraisal and Market for Capital ( Chapter 10)

10 3/24  Valuation of Income properties: Appraisal and Market for Capital ( Chapter 10) and Investment Analysis and Taxation of Income Properties (Chapter 11)

11 3/31  Investment Analysis and Taxation of Income Properties (Chapter 11) and Financial Leverage and Financing Alternatives (Chapter 12)

12 4/7  Financial Leverage and Financing Alternatives (Chapter 12) and Risk Analysis (Chapter 13) ,Second in-house examination(one hour and twenty minutes)

13.4/14  The Secondary Mortgage Market: Pass –Through Securities( Chapter 19) and Secondary Mortgage: CMOs and Derivative Security (Chapter 20)

14.4/21  Secondary Mortgage: CMOs and Derivative Security (Chapter 20) and Real Estate Investment Trusts(REITS) (Chapter21)

15.4/28  Real Estate Investment Trusts(REITS) (Chapter21) and Review for Final examination..

16 5/12  Final Examination( 7:30PM to 10:15PM)

Note: last day to drop 2/12

Honor Code: Students are expected to observe the GMU Honor Code.

Attendance   Students are strongly encouraged to attend every class meeting. Anyone who thinks that he/she has a chance of missing more than four classes should definitely take a different course.

Etiquette in the Class Room -Students must turn off all phones, beepers, etc. when attending class. No one has permission to tape record any part of any lecture or discussion in any session. PRIVATE CONVERSATIONS BETWEEN STUDENTS WHILE CLASS IS IN SESSION ARE IMPOLITE, UNPROFESSIONAL, AND UNWELCOMED.
Exams  Students who want to take an exam at other than at the scheduled time must get prior permission from the instructor who is unlikely to give it unless the student has a serious medical problem (documented by a doctor in writing) or faces a severe conflict in schedule because of a work-related matter (documented in writing by a supervisor).

** (Short Bio) George H. K. Wang is the Research Professor of Finance in the School of Management at George Mason University. He received his Ph. D in statistics and economics (double majors) from Iowa State University, Ames, Iowa. He was the Deputy Chief Economist and Director of Research, U. S. Commodity Futures Trading Commission. Dr Wang was visiting Professor of Finance, Faculty of Economics and Business, University of Sydney, Australia in summer, 2006, 2007 and W and 2007 winter, 2013-14. Visiting Professor, CRC Capital Markets Ltd, Sydney Australia, 2010 and Visiting Professor of Finance, College of Management, National Central University, Jhongli, Taiwan in summer 2007. He has published widely in major refereed journals in the areas of derivative markets, applied time series, econometrics, mortgage markets and transportation. He is an elected ordinary member of International Statistical Institute and on the editorial board of the Journal of Futures Markets.