1. Administrative Information

Time:       Tuesday 4:00 – 6:40 pm  
Location:  SSW2514  
Instructor:  Dr. Michael Lea  
Office:     SSE 3410  
Tel:        760 703 4015  
Email:      mlea@mail.sdsu.edu  
Office Hours: Tuesday and Wednesday 2:00-3:30 pm or by appointment  
Blackboard: https://blackboard.sdsu.edu/

2. Course Overview

This course covers methods of financing real estate including sources of funds, the role of governmental financial agencies and financial analysis for various types of properties. This course exposes students to concepts, theories and industry practice in real estate finance. It also introduces analytic methods used for real estate finance and investment decision-making.

The financing of real estate is one of the largest and most important components of the US financial system. During 2002-2007, an average of $2.8 trillion mortgages were originated annually to finance residential properties, and another $400 billion per year mortgage loans have been made to finance commercial real estate. However, the mortgage market crisis triggered a global financial market crisis and a recession in U.S. Both commercial and residential property values plummeted, millions of homes were foreclosed and trillions of household wealth was lost. After 4 years of slow growth and regulatory uncertainty, the residential and commercial mortgage markets have significantly recovered.

The primary goal of this course is to help students acquire the knowledge and develop the analytical skills of real estate finance for jobs in the real estate development, brokerage, mortgage banking and investment banking industries. The main topics covered in the course include mortgage products, mortgage banking, secondary mortgage market and mortgage-backed securities, financial leverage and commercial real estate finance.

3. Student Learning Outcomes

College of Business Administration students will graduate being:
   a. Effective Communicators  
   b. Critical Thinkers  
   c. Able to Analyze Ethical Problems  
   d. Global in their perspective  
   e. Knowledgeable about the essentials of business
The student learning outcomes for this course contribute to CBA goals. Students will improve their communication skills through graded presentations (a), demonstrate their critical thinking through tests and problem sets (b), analyze ethical problems through discussion of consumer protection and regulation issues in real estate finance (c) and become knowledgeable about real estate finance (e).

Upon successful completion of the class, students are expected to be able to:

1. Identify different types of mortgages available in the marketplace and explain their characteristics;
2. Calculate fixed-rate mortgages (FRM) and adjustable-rate mortgages (ARM) (e.g. monthly payment, amortization and effective borrowing cost) and make a rational choice among various mortgages based on the calculations;
3. Identify the major players in the US secondary mortgage market and explain securitization and how the market functions;
4. Understand the main risks (prepayment and default) of mortgage lending and how they are mitigated;
5. Analyze the impacts of the recent mortgage market crisis on financial markets and on the US economy;
6. Compare different sources of commercial real estate financing (both debt and the equity) and analyze how leverage affects risk and return;
7. Build and manipulate a basic commercial real estate pro forma;

3. Course Organization and Requirements
The course is a combination of lectures, discussions, guest presentations and student presentations. You are expected to read the textbook chapters and readings before each class. To raise questions and to participate in class discussions are critical in your success in this class.

There will be a mid-term and a final. Exams will be based on materials from both the lectures and the readings and will be a combination of multiple choice and problems. In addition, there will be two problem sets and a class presentation.

Each class member will make a class presentation on a topic or article pertaining to real estate finance. The presentation will be done in Powerpoint with both the article and PPT handed in. You will be graded on the professionalism of your presentation (both verbal and PPT). You must obtain my approval for your article or topic prior to presentation.

The focus of the course is on the economic and financial underpinnings of the real estate finance market. However, the problem sets and exam questions involve the calculations of present values and annuities using spreadsheets, so **basic skills in using Excel and a financial calculator are required.** A list of tutorials on Excel and the HP 12c is attached.
Class participation will be based on attendance, questions and responses during class. Do not hesitate to contact me if you do not understand material presented in class. This is a course in which it is easy to fall behind. I will create a topical discussion board on Blackboard that you will have the opportunity to contribute.

4. Grading
Midterm 25%
Final 30%
Problem Set 1 15%
Problem set 2 15%
Class presentation 10%
Class participation 5%

Each component will be graded on a 100 point scale with the final course point total being the sum of the component grades multiplied by their weight. I curve the final grades.

The mid-term and final are in class combinations of multiple choice, short answer and problems. The problem sets are individual take home exercises. According to university grading policy, “[u]ndergraduate grades shall be: A, outstanding achievement; B, praiseworthy performance; C satisfactory performance; D, minimally passing and F, failing. The grade for average undergraduate achievement shall be C.” I will be using plus or minus grades.

5. Textbooks and Readings

6. Blackboard Course Information Web Site
To access the course materials, please go to the website https://blackboard.sdsu.edu/, login using your user ID and password, and find the course Real Estate Finance. For convenience, all course materials including syllabus, lecture notes, problem sets, answer keys to problem sets and exams will be put under the Course Documents folder.

7. Computers and Phones in Class
Laptop computers are allowed in class and should be used for class activities and not cause a distraction for other students. Laptops are not to be used during student presentations. Phones are not allowed to be used in class at any time.

7. Disability Statement
Any student requesting academic accommodations based on a disability is required to register with the Student Disability Services (SDS) each semester. A letter of verification for approved accommodations can be obtained from SDS. Please make sure the letter is delivered to me as early in the semester as possible. SDS is located in Calpulli Center,
Suite 3100 (third floor) and is open 8:00am - 4:30pm, Monday - Friday. The phone number for SDS is (619) 594-6473.

### Class Schedule

<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Topics and Readings</th>
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| W1/Jan. 21  | **Introduction and Brief History of US Real Estate Finance**  
B&F Ch. 1.2 pp. 16-25  
Lea, M., 1996: Innovation and the Cost of Mortgage Credit,  
*Housing Policy Debate* 7(1): 147-174  
DiMartino, D. and J. Duca, “The Rise and Fall of Subprime Mortgages”,  
Crisis of credit: [http://vimeo.com/3261363](http://vimeo.com/3261363) |
| W2/Jan 28   | **Introduction to Mortgage Instruments**  
B&F Ch. 3  
Mortgage Instruments: Fixed Rate Mortgages  
B&F Ch. 4 pp. 77-95  
Lea, M. and A. Sanders, “Government Policy and the Fixed Rate Mortgage”,  
FRM example disclosure form H19 |
| W3/Feb 4    | **Residential Mortgage Lending**  
B&F Ch. 8, pp. 222-238  
Tanta: Mortgage Origination Channels for UberNerds  
Bond and mortgage yield relationship  
[http://www.youtube.com/watch?v=puCkPZyDhms](http://www.youtube.com/watch?v=puCkPZyDhms) |
| W4/Feb. 11  | **Alternative Mortgage Instruments**  
B&F Ch. 5  
Tanta: Negative Amortization for UberNerds  
Pay-option ARM sample disclosure form H(4)  
Consumer protection articles from [www.mtgprofessor.com](http://www.mtgprofessor.com) TBD |
| W5/Feb. 18  | **Residential Financial Analysis**  
B&F Ch. 4, pp. 92-106  
B&F Ch. 6 |

**Prob. 1 Handout**

**Prob. 1 due**
W6/Feb. 25  
**Mortgage Default and Foreclosure**  
B&F Ch. 2 pp. 26-39  
Tanta: Foreclosure and REO for Ubernerds  
Property Radar, California Foreclosure June 2013 Report  

W7/Mar. 4  
**Midterm**

W8/Mar. 11  
**Secondary Mortgage Markets and Mortgage Securities**  
B&F Ch. 19  
Tanta, MBS for Ubernerds: GSE Pass-throughs  
US Subprime Mortgage Crisis Explained in 10 Minutes  
[http://www.youtube.com/watch?v=afyQE7MyOec](http://www.youtube.com/watch?v=afyQE7MyOec)

W9/Mar. 18  
**The Government Sponsored Enterprises**  
Min, D., “Future of Housing Finance Reform: Why a Government Role is Necessary for Smoothly Functioning Mortgage Markets”, Center for American Progress, November 2010  

W10/Mar. 25  
**Introduction to Commercial Real Estate Finance**  
B&F Ch. 9  

W11/Apr. 8  
**Real Estate Valuation and Investment Analysis**  
B&F Ch. 10  
B&F Ch. 11, pp 339-358  
Simpson, John and Eileen, “Cap Rate Follies”, CCIM  
Introduction to Commercial Real Estate Investing

**Problem Set 2 Handout**
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>W12/Apr. 15</td>
<td>Financial Leverage, the Use of Debt and Taxation</td>
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<tr>
<td></td>
<td>B&amp;F Ch. 11, pp. 359-370</td>
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<tr>
<td></td>
<td>B&amp;F Ch. 12, pp.</td>
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<tr>
<td></td>
<td>Fiorilla, P. and J. Taylor, “Life After Debt: Coming to Grips With</td>
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<td>the Funding Gap”, Prudential Real Estate Investors, Sept. 2009</td>
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<td>W13/Apr. 22</td>
<td>Problem Set 2 Due</td>
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<td>W14/Apr. 29</td>
<td>Commercial Real Estate Risk Analysis</td>
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<td>B&amp;F Ch. 13</td>
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<td>Miller, N., “Assessing Risk”, CCIM</td>
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<td>Guest Speaker: To Be Determined</td>
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<td>W16/May 6</td>
<td>Commercial Real Estate Equity Finance</td>
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<td>B&amp;F Ch. 18, 21 pp. 678-694</td>
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<td>REIT forecast</td>
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<td><a href="http://www.reit.com/Videos/Expectations-Remain-High-for-REITs-">http://www.reit.com/Videos/Expectations-Remain-High-for-REITs-</a></td>
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<td>in-2013.aspx</td>
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Mortgage and Financial Calculations on HP 12c and Excel

Mortgage amortization on Excel
http://www.tvmcalcs.com/calculators/apps/excel_loan_amortization

Mortgage payment on HP and Excel
http://www.youtube.com/watch?v=O6wIX3tOzS4

Mortgage calculator in Excel
http://www.youtube.com/watch?v=20ycC_GY56Y

Valuation and Return in Excel: Annuities
http://www.tvmcalcs.com/calculators/excel_tvm_functions/excel_tvm_functions_page2

Valuation and Return on HP 12c: Annuities
http://www.tvmcalcs.com/calculators/hp12c/hp12c_page2

Valuation and Return in Excel: Uneven Cash Flows
http://www.tvmcalcs.com/calculators/excel_tvm_functions/excel_tvm_functions_page3

Valuation and Return on HP 12c: Uneven Cash Flows
http://www.tvmcalcs.com/calculators/hp12c/hp12c_page3

NPV and IRR with Excel
http://www.youtube.com/watch?v=KJlqK4nCo_M