BUS 435-01
Real Estate Investment
Winter 2015

California Polytechnic State University - San Luis Obispo
Orfalea College of Business

Instructor: Dr. Pratish Patel
Office: Bus 422
Office Hours: Tuesday / Thursday, 2:00 p.m. – 4:00 p.m.
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Email: ppatel29@calpoly.edu

Class Time & Place: Tuesday/Thursday, from 4:10 p.m. - 6:00 p.m. in room 3-302


Course Goals:

This course has two goals:

1. Securitization: We will study the operation of the U.S. residential and commercial primary mortgage markets. With that foundation, we will then turn to mortgage-backed securities (MBS). MBS are part of structured finance and we will talk about its advantages and disadvantages. While this is not a financial engineering course, students will value complex fixed-income securities.

2. Housing Crisis: To give students an understanding of the sub-prime mortgage crisis and all the events that flowed from it, up to the current moment.

As future business professionals, students will need to understand the mechanics of real estate mortgage markets: The journey begins from the point when a potential homeowner approaches a broker to get a mortgage and ends at hedge funds who own leveraged mortgage backed securities (MBS). To address this, BUS 435 will have two main components: (1) a lecture/readings component that introduces students to the vocabulary and concepts associated with each aspect of the real estate investment and (2) a hands-on component that will require students value a tranche of a MBS.

*The hands-on component of the course involves the following:*

- A team project that values a MBS. The deliverables of the project are a presentation that highlights 1) how to value a tranche of a mortgage backed security; 2) what are the risks; 3) who should buy these securities and a write up that explains the findings
- Use of Microsoft Excel (VBA and other features)
Course Objectives:

Upon completion of BUS 435, students should be able to do the following:

- Use excel to analyze securities that fall under the umbrella of real estate investments;
- Explain the need for securitization in the market place;
- Explain the risks involved in investing in MBS;
- Apply knowledge to identify opportunities and solve business problems (LO 1.1);
- Effectively participate in teams (LO 4.3).

Grading:

- Homework: 30% --- There will be six HW assignments. Some assignments will be group based;
- Pop Quizzes: 10% --- There will be three quizzes. You will choose the two best quizzes. The quizzes will be held at random times and they will cover HW assignments and lectures;
- Team Project: Presentation 25% and Write up 15%;
- Exam: 20% --- The exam will be comprehensive.

If you miss class on the day of the Exam without a “verifiable” acceptable reason (e.g., death in the family; severe illness that requires a physician’s attention and a physician’s note), you will receive a grade of zero. Check out the exam dates – if these do not work for you then please drop the class.

Final Grade:

The final grade will be composed of a weighted average (based on the weights indicated) of the exam, a team project, and homework. The following distribution determines the final grade:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: 94 - 100</td>
<td>94 - 100</td>
</tr>
<tr>
<td>B+: 87 – 89</td>
<td>79</td>
</tr>
<tr>
<td>C+: 77 – 89</td>
<td>79</td>
</tr>
<tr>
<td>D+: 67 – 79</td>
<td>79</td>
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<tr>
<td>F: Below 60</td>
<td>79</td>
</tr>
<tr>
<td>A-: 90-93</td>
<td>67</td>
</tr>
<tr>
<td>B: 83 – 86</td>
<td>67</td>
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<tr>
<td>C: 73 – 76</td>
<td>67</td>
</tr>
<tr>
<td>D: 63 – 66</td>
<td>67</td>
</tr>
<tr>
<td>B-: 80 – 82</td>
<td>67</td>
</tr>
<tr>
<td>C-: 70 – 72</td>
<td>67</td>
</tr>
<tr>
<td>D-: 60 – 62</td>
<td>67</td>
</tr>
</tbody>
</table>

What I Expect From Students:

- Attend every class on time unless there is an emergency;
- Arrive to class well fed, well rested, and prepared to participate actively in class discussions;
- Read the assigned material before attending lectures;
- DO NOT Use class computers unless you are taking notes;
• No cell phone use, texting, use of iPads, etc., is permitted during the class period, except during the class break;
• Come to see me during office hours if you have any trouble at all with the material. Please do not wait until the day before an exam. It is best to clear up any misunderstandings as early as possible;
• If a mistake in grading occurs, please see me about it immediately.

What Students Can Expect From Me:

• I will explain the course objectives carefully;
• I will do my best to explain the material clearly and precisely;
• I will be available for students during office hours, or through email – I strongly encourage students to visit me during office hours or by appointment to clarify concepts;
• I will encourage participation and try to make the class dynamic;
• I will construct fair exams;
• I will grade examinations and other assignments fairly;
• I will encourage you to ask questions openly and without fear of embarrassment;
• I will provide an opportunity for you to make suggestions for improvements to the class (e.g., if you would like me to slow down or to repeat something I have done).

Additional Comments:

• Make-up exam will not be issued (the exception is for an extreme, verifiable emergency such as a debilitating illness or a death in the family). Everyone should take the exam on the assigned day at the assigned time. I will not grant any exceptions without a verifiable and accepted excuse!
• Homework assignments not submitted by the beginning of class on the due date will receive a grade of zero.
• If a class is missed, it is the student’s responsibility to obtain assignments, handouts, class notes, etc. (class notes should be obtained from fellow students). Much of the class material will be available on Poly Learn.

Course Policies:

Attendance Policy:

• I expect you to attend every class, on time, and to stay for the entire class period. You are responsible for the completion of all work assigned even if you miss a class.
• If you need to leave class early, please let me know before the class begins.
• If you have a legitimate reason for missing class, please let me know IN ADVANCE. Try to schedule job interviews during a time other than class time.

Classroom Conduct:

• I expect you to be punctual, alert, and prepared for every class.
• I expect you to be considerate to other students.
- Ask questions in class. If you are confused, more than likely several classmates are too.
- If you need extra help, please see me during office hours or during a mutually agreed upon time.

**Cell Phones:**

You may not use your cell phone in class. You may not leave class to use your cell phone. If you have an emergency that requires you to use your cell phone, please let me know in advance. There will be a break halfway through each class and you may use your cell phone. This goes for texting as well.

**Computer Use:**

During class time, you may not use the computer for any reason other than to take notes.

**Ethics/Academic Honor Code:**

By accepting admission to Cal Poly, you make a commitment to understand, support, and abide by the university’s honor code and the student computing policy without compromise or exception. The judicial board will handle all violations of the code. Any plagiarism or cheating will result in an automatic failure (F) for the course.

**Grading:**

I will handle all graded material objectively and fairly. If a mistake in grading occurs, you must notify me immediately. For ALL graded assignments, including the exam, you have ONE WEEK after the grades are distributed to discuss grading issues with me. If you do not address these issues within ONE WEEK of receiving the grade, there will be no modifications to the grade, even if it works in your favor. I will address all concerns quickly and equitably.

**Contacting Me:**

I am more than happy to help anyone who needs help either during office hours or through an appointment. I expect the following protocol:

- If you have any HW related questions (e.g. if a question is mis-specified or badly worded), then post the question on the POLY LEARN forum. I will not answer any such questions by email. I will check the forum every day and will try to respond by the end of the day.
- If you have any project related comment that you think would be useful for the whole class, then post them on the POLY LEARN forum.
- If you have any other comments or questions, then email me. I will try to respond within 24 hours.

**Final Exam:**
Final exam will be according to the University's scheduled date and time. The Area Chair and Dean MUST approve “Early” exams well in advance of the final exam date. This is pursuant to an academic senate resolution on the topic: [http://digitalcommons.calpoly.edu/senateresolutions/632/](http://digitalcommons.calpoly.edu/senateresolutions/632/)

FERPA (Family Educational Rights and Privacy Act):
It is a violation to FERPA to leave graded assignments in any public area (e.g., the hallway) or to discuss student academic matters with any person other than the student (except for University officials within the course of official duties).

The best way to comply with FERPA is to never discuss anything about a student except with the student himself/herself in private. Watch out for the casual inquiry, which could lure you into violation (e.g. phone call from somebody claiming to be a parent and wanting to discuss the student's academic status).

Special Needs:
Students needing special accommodations or special services should contact the Disability Resource Center (DRC), Building 124, Room 119, (805) 756-1395 or email drc@calpoly.edu as early as possible in the quarter. The needs for specialized services must be documented, verified by these units, and presented to me by the second week of class. I will do everything I can to enhance your learning experience.
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings/Videos (Week assigned)</th>
<th>HW (Week assigned)</th>
</tr>
</thead>
</table>
| Week 1 | 1) Intro to Class/ Syllabus  
2) REITs     | 1) Chapter on REITs  
2) Chapter 10                                                       | HW 1 – Measuring Growth       |
|        |                                                 |                                                                     |                               |
| Week 2 | 1) Loans and Mortgages  
- Focus on ARMs | 1) Mortgage Math  
2) Chapter 11-12                                                      | HW 2 – Mortgage Math          |
|        |                                                 |                                                                     |                               |
| Week 3 | 1) Securitization  
- Focus on Chapter 11 |                                                                     | HW 3 – Solar City Case Study  |
|        |                                                 |                                                                     |                               |
| Week 4 | 1) Introduce Project  
2) MBS Valuation  
- Weighted Average Life  
- Duration | 1) Watch Chapter 11 Video #1 and #2                                 | HW 4 – Chapter 11 Problem part 1 |
|        |                                                 |                                                                     |                               |
| Week 5 | 1) MBS Valuation  
- PSA  
- CPR/SMM  
2) Lecture on Project  
- CIR/ Interest Rate Simulation  
- 1989 G.S. Model | 1) Watch Chapter 11 Video #3  
2) Watch Project Overview Video | HW 5 – Chapter 11 part 2  
HW 6 – Chapter 11 Part 3 |
|        |                                                 |                                                                     |                               |
| Week 6 | 1) Lecture on Project Analysis  
- Data Table/ OAS  
- Standard Deviation  
- Quintiles  
- Report Requirements | 1) Watch Report Video  
2) Read Articles on Crisis | Essay on Financial Crisis     |
|        |                                                 |                                                                     |                               |
| Week 7 | 1) Discuss Assigned Articles  
2) Lecture on Financial Crisis | 1) Read Articles on Crisis |                               |
|        |                                                 |                                                                     |                               |
| Week 8 | 1) Take Project Questions  
2) Check in with Groups on Project  
3) Guest Speakers? |                                                                     |                               |
|        |                                                 |                                                                     |                               |
| Week 9 | 1) Presentations |                                                                     |                               |
|        |                                                 |                                                                     |                               |
| Week 10| 1) Economics of Skyscrapers  
2) Location Lecture  
3) Class Wrap Up | 1) Monocentric Notes |                               |
| Week 11| 1) Final |                                                                     |                               |