Overview and Objectives

In this course, we will take the perspective of an institutional investor considering both the risks and opportunities associated with acquiring a given property or portfolio of properties. In evaluating real estate investment in this way, we will assess the value of property by projecting the future cash flows that will be received by financial claimants within a pro-forma cash flow statement. Using this discounted cash flow approach to valuation, we can value property in an organized manner by identifying both the risks and opportunities associated with a given property, assess the costs and benefits of financial leverage, characterize and value options associated with flexibility in future decision making, and consider decisions associated with managing portfolios of real assets.

A large portion of this course will be dedicated to understanding the relationship between debt and the value of equity claims in real estate finance. A central result from financial economics suggests that, in a tax-free setting, the way in which an investment is financed does not affect the value of the underlying investment. Yet, in real estate, the vast majority of acquisitions are either financed with debt or, if originally acquired with equity only, "levered up" at some later date. The use of debt financing increases risk and must therefore provide commensurate benefits. Some of these benefits are rather obvious, such as the tax deductibility of interest payments, while some are less transparent, such as the option value embedded in non-recourse lending agreements.

Prerequisites and course materials

Satisfactory completion of RES 9776 is a perquisite for this course. In particular, a solid understanding of the basic tools of finance, particularly discounting cash flows, is essential. You will also need to be familiar with the use of a spreadsheet package such as Excel. A quick review of corporate finance will take place during the first few lectures in the course in order to provide a common foundation for the material that will follow.
The required text for this course is Real Estate Finance and Investments: Risk and Opportunities (3rd edition, ISBN 9780615449517) by Linneman which can be purchased either at the Baruch bookstore or online at any one of the following sites:

- Amazon (http://www.amazon.com/gp/homepage.html)
- AbeBooks (http://www.abebooks.com/docs/Textbooks/)
- eBay (http://www.ebay.com/)

The bookstore at Baruch also has an option allowing you to rent the text for the semester at a discounted price. If you are particularly interested in learning how to use Excel for financial modeling, Excel Modeling and Estimation in Corporate Finance (3rd edition, ISBN 9780136025610) by Holden provides a nice complement to the material that will be presented in this course. You are not required to purchase this book.

In addition to readings from the text, slides, announcements and supplemental materials will be posted on the course website on Blackboard. Outside of lecture, this is the central location for all information concerning the course. It is expected that you check the course page on Blackboard on a daily basis for updated information and announcements.

If you have any questions regarding lecture or the course in general, you are encouraged to stop by my office at any time during the semester. My office hours are posted above, but if these times are not convenient, just send a quick E-mail letting me know some days and times that work for you and I will get back to you as soon as possible.

**Administration and Grading**

Your grades will be based on your performance on graded homework assignments, exams, class participation, and the written analysis of a case. You will be graded on a curve relative to the rest of the students in the course.

- **Homework:** There will be four (4) homework sets assigned during the course of the semester which will, in total, make up 20% of your grade. The homework assignments will consist of several problems from the text and other sources that will provide an overview of the types of issues important in the corresponding lecture material. One or two of the assignments may be based on cases and will involve a discussion of your solutions and/or recommendations in class on the day it is due.

- **Case projects:** There will be two case projects that will be assigned this semester. The first involves the valuation of a given property or properties. The second, which is due on or before the scheduled time for the class final, involves the identification and valuation of a real option held by an investor. Each case assignment will count for 25% of your grade.
• Exams: There will be one in-class exam during the course of the semester which will account for 25% of your grade.

• Class participation: Class attendance is not mandatory, but you are expected to contribute to class discussions on a regular basis. In other words, missing class means that you are missing an opportunity to take part in the festivities. 5% of your grade will be based on a subjective assessment of your class participation.

Homework assignments that are submitted late will be penalized. If you must miss an exam, notify me as soon as possible before the time of the exam either by phone or E-mail. Anyone missing an exam without such notification will receive no credit for the exam and will not be given a make-up.

As stated in Baruch College's policy on Academic Honesty: "Academic dishonesty is unacceptable and will not be tolerated. Cheating, forgery, plagiarism and collusion in dishonest acts undermine the college's educational mission and the students' personal and intellectual growth. Baruch students are expected to bear individual responsibility for their work, to learn the rules and definitions that underlie the practice of academic integrity, and to uphold its ideals. Ignorance of the rules is not an acceptable excuse for disobeying them. Any student who attempts to compromise or devalue the academic process will be sanctioned." Any incident of suspected academic dishonesty will be reported to the Office of the Dean of Students. Additional information and definitions regarding Baruch's policy on Academic Honesty can be found at http://www.baruch.cuny.edu/academic/academic_honesty.html.
Course Schedule

The following is a detailed schedule of lecture topics, readings and exams. While this provides a good overview of course content, there may be some ebb and flow during the course of the semester.

Week 1
8/29 Course introduction and overview
8/31 Review: Discounted cash flows L P1, P2

Week 2
9/5 No class
9/7 Review: Risk and uncertainty Notes

Week 3
9/12 Commercial leasing L 3
9/14 Property level analysis: NOI L 4

Week 4
9/19 Property level analysis: NOI L 4
9/21 Capitalization rates L 7

Week 5
9/26 Property level analysis: Debt and BTCFs L 5, 12, 13
9/28 No class

Week 6
10/3 Property level analysis: Debt and BTCFs L 5, 12, 13
10/5 Property level analysis: Debt and BTCFs L 5, 12, 13

Week 7
10/10 No class
10/12 Property level analysis: ATCFs Notes

Week 8
10/17 Investment analysis L 5
10/19 Investment analysis L 5

Week 9
10/24 Disposition L 16, Case 1
10/26 Debt and capital structure L 12, Notes

Week 10
10/31 Debt and capital structure L 12, Notes
11/2 Options and option pricing L 12, Notes
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<td>Options and option pricing</td>
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Case 2 is due on or before December 21st at 12:00 pm.