

11.431J/15.426J: Real Estate Finance & Investments I: Micro-Level Fundamentals
Fall 2008, MIT Center for Real Estate, Lectures 4:00-5:30 T-Th, Recit.5:30-7:00 Th,
website: <https://stellar.mit.edu/S/course/11/fa08/11.431/>

Primary instructor: Lecturer Tod McGrath
Phone/Fax/Email: wtod@advisore.com
Office hours: By appointment (or email anytime).

Additional instructors: Professor David Geltner (Office W31-310G, Center for Real Estate)

Teaching assistants: Joshua Zade (zade@mit.edu), Patrick Rowe (prowe@mit.edu),
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Prerequisites: Course open to graduate students only, by permission of instructor

Course description & objectives: This course is an introduction to the most fundamental concepts, principles, analytical methods and tools useful for making investment and finance decisions regarding commercial real estate assets. As the first of a two-course sequence, this course will focus on the basic building blocks and the “micro” level, which pertains to individual properties and transactions (as distinguished from the “macro” level that pertains to portfolio, firm level, and investment management considerations – the macro level will be covered in 11.432 next spring). This course will consider investment in both “stabilized” (fully operational) income properties, and development investments. Our perspective will be that of so-called “institutional” real estate decision-making (e.g., pension funds, REITs, banks, life insurance companies), regarding large-scale commercial property. At this level it is important to integrate the perspectives of “Wall Street” (the mainstream securities investments and corporate finance establishment) and “Main Street” (local, traditional real estate business community). This requires a treatment of real estate investment rigorously integrated with, and built upon, the modern corporate finance and investments perspective as taught, for example, in the Brealey-Myers text in the Sloan introductory finance theory curriculum (15.401). However, a key objective of this course is to recognize the unique features of real estate that distinguish it from so-called “mainstream” securities investments and corporate finance.

Sloan and other students taking this course as an elective should understand that this is a required course in MIT’s MSRED program core and, as such, is taught as a “core” subject. That is, a large body of material is covered in a short amount of time, aimed at students who do not necessarily have much finance background. This precludes primary reliance on the case method (though there are some cases). The course reflects the rather quantitative nature of the subject matter (i.e., the course features intensive lectures presenting large quantities of analytical material).

Administration/Recitations: In addition to twice-weekly lectures, there will generally be weekly recitation classes. These will be used to review the material presented in lecture and the text, and in some cases as extensions to the class to allow more complete coverage of case and project assignments. With one exception, problem sets will not be required or graded. The recitation instructors will present cases and other project assignments. The teaching assistants will serve as the graders (with appeals to the primary instructor). Recitation attendance is advisable for most students, but is mandatory only when cases are being discussed during these sessions.

No Open Laptops in Class, Please (unless specified by the instructor).

Grading: The grade will be based on two exams, and four case assignments. Cases will be done in student groups (self-selected, non-repeating) of usually three students each. Some practice problem sets have also been prepared, which will generally not be required or graded (with one exception). Problem sets are recommended for practice to insure mastery of the lecture and text material and as preparation for the exams. Problem sets will be discussed by the TA during recitations when answer sheets will be handed out and made available on the course web site. Overall course grading will be approximately as follows:

Exam 1	25%
Exam 2	35%
Cases (Cases 1&2, 8% ea; Cases 3&4, 12% ea)	40%

Required Materials:

Text: (required) D.Geltner, N.Miller, J.Clayton & P.Eichholtz, “Commercial Real Estate Analysis & Investments, 2nd Edition”, South-Western College Publishing Co., Cincinnati, 2007 (ISBN# 0-324-30548-6).

Calculator: A financial calculator is required, of a type that can do discounted cash flow and internal rate of return calculations (DCF, IRR). The Hewlett-Packard HP-10B will be used for in-class examples.

11.431J/15.426J: Real Estate Finance & Investments I, Fall 2008 Current Schedule (check Stellar for updates)

Lectures are by McGrath except where indicated (**Geltner**).

Note: Lecture notes in PowerPoint or PDF will generally be available on the course Stellar website prior to lecture.

Class	Topic:	Date	GM Ref (2e):	Recitation (Topic, voluntary PS # will be discussed):
1	Course Introduction	9/04 Th		
2	Discounted Cash Flow Analysis	9/9 T	Ch.10.1 - 10.3; (please skim Ch.1&2)	
3	Discounted Cash Flow Analysis (cont.) & Net Present Value	9/11 Th	Ch.10.4 - 10.6	PV math (Ch.8), Calculator help, PS1 coaching (TA)
4	Net Present Value (cont.)	9/16 T	Ch.10.5 - 10.6 Appndx A&B	
5	Real Estate Cash Flows, pro forma statements	9/18 Th	Ch.11.1	Coaching on Excel (TA)
6	Real estate Opportunity Cost of Capital	9/23 T	Ch.11.2	
7	Leverage	9/25 Th	Ch.13.1 - 13.2	PS 1 due (Ch.8,10,11, Excel Exercise) (TA) Required assignment
8	Weighted-Average Cost of Capital (WACC)	9/30 T	Ch.13.3 - 13.5	
9	Case 1 due: Private Practice (A)	10/02 Th		Case discussion (cont.)
10	After-tax Cash Flows	10/7 T	Ch.14.1- 14.3	
11	Capital Structure; Debt vs Equity, etc.	10/9 Th	Ch.15.1- 15.2	TBA (TAs)
12	Project Level Capital Structure	10/14 T	Sect.15.3	
13	Capital Structure in Practice: Graybar Building Assoc.	10/16 Th		Class discussion (cont.)
14	Commercial Mortgage Loan Underwriting	10/21 T	Ch. 18.2	
15	Case 2 due: Private Practice (B)	10/23 Th		Case discussion (cont.)
16	Development Financial Feasibility (<i>not on mid-term</i>)	10/28 T	Ch. 28	
17	Development Project Evaluation (<i>not on mid-term</i>)	10/30 Th	Ch. 29.1& Ch. 29.3	No Recitation (CRE Students @ ULI)
18	Intro Case 3, Madison Project example	11/4 T	Madison.xls	
19	Mid-term Exam: (Chs. 10, 11, 13, 14.1-3, 15, 18.2)	11/6 Th		TBA (TAs)
20	Madison Project example (cont.); Finish Development Project Investment Analysis	11/13 Th	Ch. 29.1 & Ch. 29.3	Case 3 guidance (TAs)
21	Guest Speakers Panel	11/18 T		
22	Case 3 due: One Lincoln Street (A)	11/20 Th		Case discussion continued; Case 4 guidance (TAs)
23	Real Options & Land Value (Geltner)	11/25 T	Ch.27	
24	Real Options & Land Value (cont.) (Geltner)	12/02 T	Ch.27	
25	Case 4 due: InterMountain Development (Larry Ellman, Citigroup) Guest Participant (Geltner)	12/04 Th		Case discussion continued
26	Case debriefing; Real Options (cont.) (Geltner)	12/9 T	Ch.27	
	Final Exam (Cumulative with emphasis on Chapters 27, 28, 29.1&3, & lessons from Cases 3 & 4)	12/15-19		