NYU | STERN

Center for
Real Estate
Finance Research

Detailed Syllabus
Real Estate Primary Markets (Course #: FINC-GB.2329.30 / FINC-UB 39)
Spring Semester 2019
Monday 6:00pm to 9:00pm in KMEC 3-90

Professor:
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Teaching Fellows' Weekly Review Session: Mondays from 5pm to 6pm in KMEC 3-90

Class Time
The class meets once per week on Monday from 6-9pm for 12 weeks. There is a 10 minute break around 7:30pm. The first class is on 2/25/19 and the last class is on 5/13/19. There will be no class on 2/11/19, 2/18/19 (Presidents' Day) and 3/18/19 (Spring Break).

Course Overview:
There are two primary goals of this class:
1. To expose you to the terms, issues, and topics in institutional-quality commercial real estate; and
2. To give you the basic skills and intuition you need to begin to evaluate a variety of institutional-quality commercial real estate investments

Commercial real estate is a multi-faceted field, encompassing both an operating industry and a broad category of investments. It has its own institutional features, lexicon, and investment structures. This class aims to provide a broad overview of the real estate field, rather than a narrow focus on any particular topic. We delve more deeply into a handful of aspects of the real estate field when I believe they are particularly relevant or when the example provides a more general insight.

The presumption in this class is that you have no prior real estate experience, and no pre-existing knowledge of the real estate industry is necessary to do well in this class. However, if you have prior experience in the real estate industry, some topics might be familiar to you already. Students interested in entrepreneurial real estate deals should consider taking the Real Estate Development and Entrepreneurship (REDE) course. Although, the REDE course is not a prerequisite for the Real Estate Primary Markets course, students without a real estate background may want to consider taking the REDE course prior to taking the Real Estate Primary Markets course.

Course Materials:

- The required **textbook** is *Real Estate Finance and Investments: Risks and Opportunities, Fifth Edition*, by Peter Linneman and Bruce Kirsch. It is available in the Bookstore.
- HBS (Harvard Business School) Case Study - Angus Cartwright IV (individual assignment)
- 860 Washington Street and New Jersey Industrial case studies that will be completed in groups
- Please check **NYU Classes** regularly for updates relating to the class and additional materials:
    - Copies of the slides used in class
    - Updates to the class notes, when necessary
    - Sample Excel spreadsheets from the in-class examples
    - Practice problems, old exams, and solutions
    - Supplemental class material and reading
    - Case materials (when available)
    - Announcements, updates, and clarifications
    - Discussion threads

Financial calculator:

A **financial calculator** will be required for the course and exam, to perform basic annuity and present value type calculations. Any financial calculator will do, as long as you understand how to use it. However, I will be using an HP 12C, and will sometimes refer to it in class. [Students interested in obtaining CFA certification should note that the two approved calculators for CFA exams are the TI - BA II Plus, and the Hewlett Packard: HP 12C.]

Class Preparation:

- **Required readings** are listed on the syllabus with an asterisk (*) and are in bold print. They are drawn from the textbook. You should read them before the class in which they are listed. I encourage you to do the recommended (but optional) readings that are listed on the syllabus, especially if you are a real estate major. Powerpoint presentations for the required and recommended readings from the textbook will be uploaded on NYU Classes.
- Guest speakers are listed on the syllabus. **Attendance is required unless you have a**

valid conflict. Email me if you cannot attend the guest lecture. The guest lectures for this semester include:

- **3/4/19** - Paul Scialla, Founder, Delos (to be held at 860 Washington Street)
- **4/22/19** – Tammy Jones, President, Basis Investment Group
- **5/10/19 (FRIDAY AFTERNOON)** - Isaac Zion, CIO, SL Green (at 420 Lexington Avenue, 19th floor)
- **Date Pending** - Jeff Sutton, Founder, Wharton Properties (not April 29)

In lieu of a regular lecture on 2/11/19, we will have a guest lecture by Isaac Zion, CIO of SL Green at 420 Lexington Avenue, 19th floor on Friday afternoon, 5/10/19.

Cases:

There will be one individual HBS Case Study (Angus Cartwright IV) and two group project Cases (860 Washington Street and New Jersey Industrial). You will choose your own group of **three to five members** for the two group case studies.

If you cannot find a group and you email me, I will either form a group for you or assign you to different teams over the course of the semester. You are responsible to make the team work. If you think a teammate is not working with good faith, or has neglected to finish her/his share of work, you must try hard to work it out within the group. The cases require a variety of skills, from financial savvy to management. You should try to have a mix of talents and backgrounds on your team. In addition, I strongly encourage you *not* to take the "divide and conquer" approach of having only one or two team members work on the case. You will be much more successful if the group uses a truly collaborative process. *You may discuss the two group case studies with other groups. However, each group is responsible for preparing the case materials and write-ups independently.* **Late cases will not be accepted nor will extensions be given.**

Examination:

The course grade will be based on one midterm exam (40%), one quiz (20%) and three cases (13.33% each). The midterm will be held in regularly scheduled class time, on **Monday, April 8**. The quiz will be held in regularly scheduled class time, on **Monday, May 13**. The quiz is not cumulative in content, but assumes proficiency in basic skills taught in the first portion of the class. The exams will cover the material examined in class and during guest lectures, the case studies, and the required readings. **<u>The midterm exam and quiz are closed-book, but you are allowed to bring one 8.5 x 11" piece of paper (double-sided) of notes into the exams</u>**. You will need to bring a financial calculator to the exam. You will not be allowed to use a computer. **If you cannot attend class on these two dates, please drop the class now.** Make-up exams will not be administered.

Practice problems and **old exams** will be made available on NYU Classes, along with solutions. Doing these problems is a fundamental part of the class. Please do the practice problems after the topic set in which they are covered. I will neither ask you to hand in the problem sets nor grade them, but this is not an indication that I consider these practice problems unimportant.

Grading:

The course grade will be based on the following weightings:

- Midterm exam: 40%;
- Quiz: 20%;
- HBS individual Case Study: 13.33%;
- 860 Washington Street group Case Study: 13.33%
- New Jersey Industrial group Case Study: 13.33%

I will consider class participation in class and case discussions when deciding grades. Sub-par participation includes arriving late to or missing classes. As explained above, I take attendance by circulating a sign-up sheet at the beginning of each class and each of you has two excused absences. Class participation will contribute up to a third of a letter grade in your final grade.

The Finance Department guidelines are that grades of “A” and “A-“ should be awarded to approximately 35% of the students in the course.

If you would like to contest an exam or assignment grade; I will look at them within three days of you receiving back the material. I reserve the right to regrade the entire assignment or exam if you contest a grade.

Course Expectations:

- **I take attendance** by circulating a sign-up sheet at the beginning of each class. It is your responsibility to sign it. If you forget, I will count that as an absence. Attendance is a component of class participation, which counts towards your grade. Attendance is required both for regular classes and for guest lectures. You have two excused absences throughout the semester.
- I expect you to come to class prepared, i.e. up to speed with the material covered in class thus far and having completed the required readings (listed on the syllabus with an asterisk *).
- I expect you to **participate** in class discussions.
- I expect that you will not find every topic we cover to be of interest to you, but that you will be a good sport about it. Students who are considering a career in real estate development, for example, are interested in very different things than students who are considering a career on Wall Street. All the topics we will cover are of interest to someone in the class, but few are of interest to everyone. Please recognize that your classmates and you do not necessarily share the same tastes when I go into depth on a topic that you feel is not especially relevant to you.

- **You may not use computers, smart phones, etc.,** unless medically necessary. I appreciate that some of you like to take notes on a computer, but past abuses have forced me to this policy. I allow the use of tablets to take notes, but nothing else. Screens need to be flat on the table so as not to distract other students and my lecturing. I reserve the right to change this policy if this impacts the learning environment
- Whatever seat you choose on the *third* class meeting (i.e., 3/25/19) is yours for the entire semester. Please sit there every class.
- The class schedule is an ambitious goal and may not reflect the actual timing, or even sequence, of covering material.

Other Recommendations (especially for students who will pursue real estate as a career):

- Join Urban Land Institute as a student member and attend local events.
- Obtain Wall Street Journal subscription with a student registration and track current real estate articles (Property Report comes out on Wednesdays).
- Take an Argus training class

Getting help:

- Contact me. Do not think that a question is too "basic" to ask me. I am happy to help students understand any material they are having difficulty with. All I ask is that you take a serious stab at it yourself before turning to me. I hold office hours by appointment, and answer questions by email. I will respond to all emails within 48 hours.

Honor Code:

- You are responsible for maintaining Stern's Honor Code which mandates zero tolerance for cheating and plagiarism. Violations of the honor code will be prosecuted with a minimum penalty of failure for the course, as required by code of conduct rules. If you become aware of any violations of the honor code you must take whatever steps are necessary to stop the violators. You must include a signed statement at the top of each problem set and exam, indicating that you adhere to the honor code. The statement is: "*I pledge my honor that I have not violated the Stern Honor Code in the completion of this exam/problem set.*" It is in your best interest that the market place knows that Stern takes honesty seriously; it adds to the value of your degree.

Course Schedule

Date	Topic	Preparation
February 11, M	**No class** – In lieu of class on 2/11/19, we will have a guest lecture by Isaac Zion, CIO of SL Green at 420 Lexington Avenue, 19th floor on Friday afternoon, 5/10/19. SL Green Realty Corp., an S&P 500 company and New York City's largest office landlord, is a fully integrated real estate investment trust, or REIT, that is focused primarily on acquiring, managing, and maximizing the value of Manhattan commercial properties. As of September 30, 2018, SL Green held interests in 106 Manhattan buildings totaling 46.4 million square feet. This included ownership interests in 28.2 million square feet of Manhattan buildings and 18.2 million square feet of buildings securing debt and preferred equity investments. In addition, SL Green held ownership interests in 15 suburban buildings totaling 2.3 million square feet in Brooklyn, Westchester County, and Connecticut.	
February 18, M	**No class**. *Presidents' Day*	
February 25, M	Topic 1: Course Requirements, class overview, and overview of real estate markets	*ULI Emerging Trends in Real Estate - United States and Canada 2019*, chapters 1-2. (Available on NYU Classes)

		***Linneman, chapter 1**: "Introduction: Risks and Opportunities" ***Linneman, chapter 2**: "What Is Real Estate and Who Owns It?" Linneman, chapter 3: "International Real Estate Investing" Discussion: 1. Real Estate as an Alternative Asset for Institutional Investors (such as NYU endowment or Norwegian sovereign wealth fund)
March 4, M	Guest Lecture and Tour at Delos Headquarters (**Please dress in business casual attire**.)	***Paul Scialla - Founder, Delos*** ***860 Washington Street (between West 13th Street and West 14th Street in Meatpacking District)*** *ULI Emerging Trends in Real Estate - United States and Canada 2019*, pp. 18-20 ("*We're All in this Together"*) **<u>Delos:</u>** ***http://delos.com/*** ***https://delos.com/people/paul-scialla*** Delos has recently relocated its headquarters to a 23,226 square-foot space at 860 Washington Street in New York City. The new office spans the fourth and fifth floors of the building, and includes a 1,520 square-foot terrace on the 4th floor. The north, east and west facing walls are full glass curtain walls with views overlooking Washington Avenue and the High Line, a nearby elevated park. The space layout will primarily include open seating areas, limited enclosed offices and conference rooms, and an array of huddle and phone rooms.

		International WELL Building Institute: ***https://www.wellcertified.com/*** The International WELL Building Institute (IWBI) is a public benefit corporation that is leading the movement to promote health and wellness in buildings and communities everywhere. IWBI was launched in 2013 following a Clinton Global Initiative commitment made by founder Paul Scialla. IWBI delivers the cutting-edge WELL Building Standard, and a professional suite of tools to empower our global community of leaders to match their convictions with their careers. As of 1/25/19, there are 1,293 projects globally comprising 272 million sf in 44 countries that have either achieved or registered for WELL certification. As of 1/25/19, there are 3,961 WELL APs and 3,336 WELL AP exam registrants in 80 countries (7,297 people). **860 Washington Street:** ***http://860washington.com/*** Located in New York's Meatpacking District, 860 Washington Street will sits directly adjacent to the city's iconic High Line Park. The Class A, 10-story glass building, constructed in 2016, replaces a former meatpacking plant with 120,413 sf of office, retail and showroom space. The owners are Romanoff Equities and Property Group Partners. The property's tenancy includes the following: • Tesla - Ground floor showroom (7,800 sf / rent of $600 psf) • Social Finance - 2nd floor (13,000 sf / rent of $155 psf, 10-yr lease term)

		• Baker Brothers Investments - 3rd and 10th floors (23,045 sf / rent of $140 and $170 psf, 15-yr lease term) • Delos - 4th and 5 floors (23,226 sf) • Twin Point Capital - 6th floor (4,500 sf / rent of $130-$140 psf, 10-yr lease term) • Alibaba - 8th floor (10,853 sf)
March 11, M	Topic 2: Elements of real estate value: Income and expenses; pro-forma setup Topic 2: Cap rates (continued)	*__Linneman, chapter 5__: "Property-Level Pro Forma Analysis", **pp. 55-73** *__Linneman, chapter 6__: "Financial Modeling" Linneman, "Prerequisite I: The Basics of Discounted Cash Flow and Net Present Value Analyses" Linneman, "Prerequisite II: IRR" *__Linneman, chapter 9__: "The Use and Selection of Cap Rates" Linneman, chapter 9, Supplement A: "A Disconnect in Real Estate Pricing" Linneman, chapter 9, Supplement B: "The Equitization of Real Estate" Linneman, chapter 9, Supplement C: "How Should Commercial Real Estate Be Priced" ***Linneman, chapter 9, Supplement D: "What Determines Cap Rates"**
March 18, M	**No class**. *Spring Break*	
March 25, M	Topic 3: Debt financing and simple mortgages Introduction of HBS Angus Cartwright IV Case Study Assignment - Assignment due on 4/15/18 (3 weeks)	*__Linneman, chapter 5__: "Property-Level Pro Forma Analysis", **pp. 74-77** *__Linneman, chapter 13__: "Distressed Real Estate Loan and Bankruptcy Basics" *__Linneman, chapter 14__: "Should You Borrow?" *__Linneman, chapter 15__: "The Use of Debt and Mortgages" Linneman, "Prerequisite III: Amortization Fundamentals"

		Robbing the Bank: Non-Recourse Lending and Asset Prices (pp. 1-5) **Review of Spreadsheet of Basic Financial Calculator Questions**
April 1, M	Topic 4: Real Estate Exit Strategies Topic 5**:** Ground leases and Financing Structures Topic 6**:** Introduction to leases and the economics of retail malls	*Linneman, chapter 18**: "Real Estate Owner Exit Strategies" ***Linneman, chapter 17:** "Ground Leases as a Source of Finance" ***Linneman, p. 222:** "Mezzanine Finance" *Linneman, chapter 4**: "The Fundamentals of Commercial Leases"
April 8, M	**Midterm exam (6pm to 8pm)** **Discussion of Equity Model for two group Case Study assignments**	 ***Linneman, chapter 19:** "Real Estate Private Equity Funds" Form groups for two group Case Study assignments
April 15, M		Review of Midterm exam Discussion of Angus Cartwright IV case and solutions in Class (individual Case Study solutions to be turned in prior to class) 860 Washington Street Case Study will be posted (Allocate some time for group members to meet) – Groups should be formed by 4/8 *ULI Emerging Trends in Real Estate - United States and Canada 2019*, Chapter 4 (Property Type Outlook)

April 22, M	 Topic 7: Securitization of debt interests: Commercial Mortgage-Backed Securities Topic 8: Real estate cycles	**Guest Speaker – Tammy Jones, President, Basis Investment Group (Capital Raising Presentation)** ***Linneman, chapter 16:** "Sources of Long- and Short-Term Debt" Linneman, "Supplemental II: CMBS Case Study" ***Linneman, chapter 25:** "Real Estate Cycles"
April 29, M	Topic 9: Equity Securitization and the REIT market	***Linneman, chapter 21:** "REITs and Liquid Real Estate" **Hand in 860 Washington Street Group Case Study Assignments at the beginning of class - Review case study in class** **New Jersey Industrial Case Study will be posted (Allocate some time for group members to meet)** *ULI Emerging Trends in Real Estate - United States and Canada 2019*, Chapter 4 (Property Type Outlook)
May 6, M		**Hand in New Jersey Industrial Group Case Study Assignments at the beginning of class - Review case study in class** Linneman, "Supplemental III (Careers in Real Estate)" Allocate Time for Course Faculty Evaluations
May 10, F		**Guest Speaker - Isaac Zion, CIO of SL Green (at 420 Lexington Avenue, 19th floor)**
May 13, M	**Quiz** **Review of Quiz** Wrap-Up / Final Review	

Information about the MBA Real Estate Specialization

The Real Estate specialization at NYU Stern provides rigorous training in (i) the economics of real estate development and investment, the financing such projects, leasing, and appraisal of buildings, (ii) the pricing/valuation and trading of financial instruments with real estate as the underlying, such Real Estate Investment Trusts (REITS), residential and commercial mortgage backed securities (MBS), and related derivative and structured finance products such as collateralized debt obligations (CDOs), credit default swaps (CDS), and index products (CDX, ABX, etc.), and (iii) the workings of real estate primary and secondary markets, including the various participants in these markets, their roles, and (iv) the legal, taxation, and regulatory environment. Elective courses can be chosen to emphasize the commercial real estate development process or the investment strategies in real estate capital markets. With an appropriate choice of elective courses, this track provides in-depth preparation for careers in real estate development, real estate brokerage, real estate project investment for private equity firms, family offices, sovereign wealth funds, and careers in real estate finance in the fixed income or equity desks of investment banks (research, sales & trading), hedge funds, and sovereign wealth funds.

*Real estate specialization courses: **three courses** among this list must be taken for the specialization (all courses are 3 unit courses):*

1. Real Estate Primary Markets (**FINC-GB.2329**, co-req: Corporate Finance FINCGB. 2302)
2. Real Estate Capital Markets (**FINC-GB.2339**)
3. Real Estate Transactions (**BSPA-GB.2300**)
4. Real Estate Development and Entrepreneurship (**OPMG-GB.2360**)
5. Real Estate Investment Strategies (**FINC-GB.2341**)
6. Urban Systems (**ECON-GB.3375)**
7. Operations in Panama (**OPMG-GB.2312**)
8. Operations in Entertainment: Las Vegas (**OPMG-GB.2360,** with approved real estate project)
9. Law and Economics of Municipal Governance **(ECON-GB.3182)**
10. At most one course from the list of pre-approved non-Stern courses: http://www.stern.nyu.edu/AcademicAffairs/Specializations/RealEstate/index.htm

Information about the Undergraduate Real Estate Track

The Real Estate Track provides rigorous training in (i) the economics of real estate development and investment, the financing such projects, leasing, and appraisal of buildings, (ii) the pricing/valuation and trading of financial instruments with real estate as the underlying, such Real Estate Investment Trusts (REITS), residential and commercial mortgage-backed securities (MBS), and related derivative and structured finance products such as collateralized debt obligations (CDOs), credit default swaps (CDS), and index products (CDX, ABX, etc.), and (iii) the workings of real estate primary and secondary markets, including the various participants in these markets, their roles, and (iv) the legal, taxation, and regulatory environment. Elective courses can be chosen to emphasize the commercial real estate development process (RED focus) or the investment strategies in real estate capital markets (REF focus). With an appropriate choice of elective courses, this track provides in-depth preparation for careers in real estate development, real estate brokerage, real estate project investment for private equity firms, family offices, sovereign wealth funds, and careers in real estate finance in the fixed income or equity desks of investment banks (research, sales & trading), hedge funds, and sovereign wealth funds.

Prerequisites

- Stern Business Tools
- Law, Business, and Society
- **Foundations of Financial Markets (FINC-UB.0002)**

Essentials
- Corporate Finance (FINC-UB.0007, req: Foundations of Financial Markets)
- Real Estate Transactions (MULT-UB.0051)
- **Real Estate Primary Markets (FINC-UB. 0039, co-req: Corporate Finance)**
- Real Estate Capital Markets (FINC-UB.00 38, req: Foundations of Financial Markets)

Advanced Electives – Four courses from the following list, of which <u>at least one of the first two courses</u>. The courses denoted by [REF] are more interesting for students who want to specialize more towards a real estate finance specialization, whereas the courses denoted with [RED] are more interesting for students who want to focus on the development, direct investment, or management of property.

- [RED] Real Estate Development and Entrepreneurship (MULT-UB.0050)
- [REF] Real Estate Investment Strategies (FIN-UB.00XX)

- [RED] Urban Economics (ECON-UA 227 – CAS)
- [RED/REF] Financial Statement Analysis (ACCT-UB.0003)
- [RED] Taxation of Individuals (ACCT-UB.0063)
- [REF] Risk Management in Financial Institutions (FINC-UB.0022)
- [RED/REF] Topics in Emerging Financial Markets (FINC-UB.0023)
- [REF] Debt Instruments (FINC-UB.0026)
- [RED/REF] Behavioral Finance (FINC-UB.0029)
- [REF] Equity Valuation (FINC-UB.0041)

• [RED] Topics in Entrepreneurial Finance (FINC-UB 61)
• [RED] Mergers, Acquisitions, and Restructuring (FINC-UB 50)
• [REF] Monetary Policy and the Financial System (ECON-UB 221)
• [REF] Macroeconomic Foundations for Asset Prices (ECON-UB 233)
• [RED] Strategic Analysis (MGMT-UB 18)
• [RED/REF] Negotiation and Consensus Building (MGMT-UB 30)