Robert F. Wagner Graduate School of Public Service  
New York University

Introduction to Real Estate Finance - GP.2639 (001)  
Fall 2011

Instructor:  
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Co-Instructor:  
Jaclene Begley  
begley@nyu.edu  
Office hours: Wednesdays 6-7pm 139 MacDougal, 2nd Floor (please email ahead of time if you plan to stop by) and other times by appointment

Meeting Place and Class Time:  
Place: Silver, Room 509  
Thursday, 6:45 – 8:25PM  
Date of First Session: September 8th, 2011

Course Objective:  
1. To provide students with a working knowledge of the fundamentals of real estate finance and investment.  
2. To analyze and understand the investment criteria for a commercial real estate transaction.  
3. To explore how “public-private partnerships” can create economic development and low to moderate income housing.

Course Description:  
The course introduces students to the basic tools of real estate analysis and finance. Topics include methods of evaluating real property, market research, the role of the real estate capital markets and the real estate development process. The course will also explore the role that both federal and local governments play in the community development process. Affordable housing and community development financing will be a significant component of the course. A variety of real estate asset classes (housing, office and retail) will be used as vehicles in exploring the real estate development cycle.

The course will consist of a mix of lectures, problem sets, and case studies which will enhance the understanding of the basic real estate investment analysis. Throughout the
course, students will be expected to stay abreast of current real estate and economic trends. The relevance of the current economic environment as it pertains to the course material will be discussed at each class.

Prerequisites:

Core-GP 1021: Financial Management for Public, Nonprofit, & Health Organizations  
Core-GP 1018: Microeconomics for Public Management, Planning & Policy Analysis

Students with backgrounds in the basics of finance, economics and quantitative analysis will have an advantage in mastering course materials. Basic Excel skills are necessary, but extra help will be available for more advanced Excel work.* Nevertheless, the course is designed to be self-contained.

*This class will rely heavily on Excel, but this should not discourage enrollment: a practice assignment will be given during the first week and an extra help session will be held if needed for students who want extra assistance after this assignment.

Course expectations:

Students must be willing to work with numbers and spreadsheets. Basic algebra skills will be sufficient for any quantitative work required in the course. Students will be required to design and use simple spreadsheets once the underlying concepts and calculation methodologies are understood. By the conclusion of the course, students will be expected to have acquired the knowledge base and skill set necessary to analyze and prepare a development pro-forma, a discounted cash flow property valuation, an analysis of investor returns and a sources and uses of funds statement.

Students are expected to bring a calculator to each class period. The Hewlett Packard HP-12C, HP-19B11 or HP17B11 financial calculators are all acceptable. Less sophisticated financial calculators are available and perfectly adequate.

In-class Excel examples will be posted on Blackboard; and students may want to bring their laptops so they can follow along in class.

Please email homework assignments to Jackie Begley with the following labels for attachments:

Lastname_assignmentname.filetype

Course format/Organization:

The course will consist of lectures and classroom discussions. The first half of the class will focus on financial skill-building and the second half will emphasize applications of these skills to affordable housing. There will be weekly assignments to reinforce the concepts introduced in class, a midterm case study project, and a final project that integrates the skills gained throughout the course. Active classroom participation by students, based on prior preparation of the readings and case studies will be required.
Grading:
Grades will be determined in accordance with the following criteria:
1. Classroom participation 10%
2. Assignments 40%
3. Angus Cartwright midterm 20%
4. Final exam 30%

All assignments must be submitted on designated due dates at the beginning of each class period. The grade of any assignment submitted late will be reduced by one marking grade (e.g. from an A to an A-) for each calendar day the assignment is submitted after the due date. All assignments must be submitted in order to receive a course grade.

Required Text and Readings
2. Course pack, including the case studies and other readings
4. Additional readings and problem sets to be distributed in class through the course of the semester.

Course Outline and Assignment Schedule:

Pre-class Assignments:
Practice Homeownership Exercise
Read NY Times article: “In One Home, a Mighty City's Rise and Fall”, and answer questions
Assigned Readings: Real Estate Principles, pgs. 16-34

Practice Excel Assignment

September 8th
Instructor: Joe Reilly
Introduction/Course Overview
- Introduction
- Overview of the commercial and residential markets
- What makes the Real Estate Market Tick
  - Supply and Demand Factors
  - Construction Cycle
  - Effects of Capital Markets
- Review homeownership affordability pre-class assignment
- Review of NY Times article

September 15th
Instructor: Jaclene Begley
The Basic Pro Forma and Development Budget
  - Building a pro forma
  - Sources of cash flow

Assigned readings: Real Estate Principles, pgs. 289-295, 514-519

Optional: Real Estate Principles on legal issues, pgs. 137-211

Homework 1 Assigned: Practice Pro Forma (due next class)

September 22nd
Instructor: Jaclene Begley

Mortgage Mathematics
  - Leverage
  - Amortization
  - Interest rates

Depreciation

Assigned Readings:  Real Estate Principles, pgs. 355-397, 494-497, 502-503, 262-265

Homework 2 Assigned: Mortgage Exercises, Pro Forma with Mortgages (due next class)

September 29th
Instructor: Jaclene Begley

Building a cash flow model - analysis
  - Key financial ratios
  - The Games People Play

Assigned readings: Real Estate Principles, pgs. 295-298

Homework 3 Assigned: The Financial Workbook (due next class)

October 6th
Instructor: Jaclene Begley

Multiple period valuation analysis: discounted cash flow
- Internal rate of return
- Discount rates
- Residual values
- Return ratios
- Comparison with other market conditions, potential investments

Assigned Readings: Real Estate Principles, pgs. 310-330

**Homework 4 Assigned: Full Pro Forma (due next class)**

**October 13th**  
*Instructor: Jaclene Begley*

Pro Forma Modeling Session 2  
- Review  
- Debt  
- Joint ventures  
- Preferred returns and hurdle rates (simple)

**Homework 5 Assigned: Practice Pro Forma 2 (due next class)**

**October 20th**  
*Instructor: Jaclene Begley*

The Acquisition Process  
- Due diligence  
- Market analysis  
- Environmental concerns


**Homework 6 Assigned: Millegan Creek Apartments and the Meadowlands Development**

***Set team assignments for Angus Cartwright Case***

**October 27th**  
*Instructor: Joe Reilly*

Affordable Housing Overview
Assigned Reading: NYC Acquisition Case Introduction (pages TBD)

**November 3rd**
*Instructor: Joe Reilly*

Midterm Presentations and Individual Papers on Angus Cartwright Case Due

**November 10th** Guest Speaker: Ron Schulman, Affordable Housing Developer

**November 17th**
*Instructor: Joe Reilly*

Affordable Housing Subsidies, Guest Speaker TBD

***Discussion of Final Assignment***

**November 24th – Thanksgiving – No Class**

**December 1st**
*Instructor: Joe Reilly*

Discussion of the Low Income Housing Tax Credit and Low Income Housing Tax Credit Case Review
Assigned Reading: Read Low income Housing Tax Credit Case

**Homework 6 Assigned: Low Income Housing Tax Credit Case**

**December 8th**
*Instructor: Joe Reilly*

Review of Low Income Housing Tax Credit Case Assignment

Final Project Q&A

**December 15th**
*Instructor: Joe Reilly*

Review of Final Project