

FALL 2018

Sections:

Course PLANA 4312 Real Estate Finance II comprises two sections:

- **Section 1: Finance for Development Projects (FDP)**
- **Section 2: Equity Financial Structuring (EFS)**

Students are to complete both sections within the Fall semester. Students enrolled in PLANA 4312 will be divided into two groups, X & Y, by the program administration:

- **Group X will do Section 1 during the first half of the Fall semester (Session A) and then will do Section 2 during the second half of the Fall semester (Session B).**
- **Group Y will do Section 2 during the first half of the Fall semester (Session A) and then will do Section 1 during the second half of the Fall semester (Session B).**

All classes will occur on Mondays from 2-4pm

Financial Analysis Tutorial:

Additionally, all students are to attend the Financial Analysis Tutorials that relate to the Section lectures.

Section 1 Finance for Development Projects Instructor:

Prof. Maria Kastanis

Section 2 Equity Financial Structuring Instructor:

Prof. Steven Bloom

Email: sgb2138@columbia.edu

Class Locations:

Group X Lecture: 113 Avery

Group Y Lecture: 200 Fayerweather

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Course Overview:

This course comprises two sections:

Section 1: Finance in the development phase of real estate.

Section 2: Financial structuring of the equity investment in real estate.

Given the fundamental financial analysis of an income-producing property learnt in Real Estate Finance I, in this subsequent course students learn about the financing of the real estate development process that delivers the income-producing property, and also, learn about the possible structures for organizing equity investors in real estate and the related distribution of profits and return of capital to those investors, both for income producing properties and for development projects that are sold upon completion.

Section 1: Finance for Development Projects (FDP)

In Section 1 of this course, students will study the financial aspects of real estate development and construction activities and learn the analytical methods used by real estate developers, lenders and investors in assessing these projects. The goal is for students to further their understanding of the financial analysis of real estate, with respect to both the debt and the equity, with specific attention to the process of initiating a development project, assessing its feasibility, determining the full costs and arranging the funding for that project. The range of development covered includes ground-up, major rehab, and value-add projects. Students are encouraged to apply these analytical capabilities in making critical comparisons of various real estate development proposals and in proposing alternative structures for funding a selected project. Students will be expected to be able to build a development funding proforma upon completion of this section.

Section 2: Equity Financial Structuring

In Section 2 of the course, students will investigate the many financial arrangements through which investors in real estate gain equity exposure. Specifically, students will learn the structuring of the deal's capital stack to achieve maximized returns, establishing appropriate operator incentives and the alignment of equity interests, ensuring liquidity and planning for liquidity events, and focusing on tax efficiency. Through advanced cash flow modeling, students will specify the format and timing of the investors' respective returns. A broad array of equity structures are reviewed to determine the associated cash flow patterns with particular attention to partnership, joint venture, and waterfall distributions.

Financial Analysis Tutorial

In parallel with the lectures, students **MUST** attend the Financial Analysis Tutorials to which they are assigned. In these tutorials, students will learn more details about the financial modeling of the debt and equity discussed in the course lectures.

The Adjunct Faculty instructors for the tutorials are Jiho Lee and Johnny Din, as above.

Course Structure:

Technical Content: During the course, students will learn the technical concepts and analytical methods utilized in determining the financial feasibility, the debt funding and equity returns of real estate investments and development projects. Competence with the applicable financial modeling tools will be gained; and the details of decision-making in the various stages of the investment analysis process will be covered.

Application:

Most critical to the student's learning in this course is the application of the learnt concepts and methods of finance to real life real estate development and investment situations. This application will be achieved by the student's participation in the following activities:

1. **Attendance and Participation in Class:** Concepts and analytical methods will be learned by reasoning through the real estate investment and development processes. Students are **expected to engage** in these investigative sessions with the professor by asking questions, responding to queries, and challenging notions.
2. **Quizzes, Tests and Homework Assignments of specific problems** will be undertaken **individually** by each student throughout the semester in order to ascertain that specific student's progress in understanding and utilizing the concepts and analytical methods.
3. **Financial Analysis Tutorial: Attendance and successful completion of the assignments are required for passing the course.**

Specific Objectives of the Tutorial:

- **Be able to do Back of the Envelope and other short-cut Feasibility Evaluations.**
- **Be capable of building a comprehensive development and construction financial model.**
- **Be able to build a comprehensive model of a deal's capital stack specifying the amount and timing of equity contributions, return of capital, and distribution of profits, in addition to clarifying the hierarchy of financial liability, tax obligations, ranking of the various equity interests.**

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Required Textbook:

Professional Real Estate Development 3rd Edition, Richard B. Peiser & David Hamilton, 2012 Urban Land Institute.

Foundations of Real Estate Financial Modelling by Roger Staiger, 2015 Routledge.

Recommended Reference Textbooks:

Real Estate Finance and Investments, 14th Edition, William B. Brueggeman, Ph.D and Jeffrey D. Fisher, Ph.D.

Commercial Real Estate Analysis & Investments, 3rd edition, Geltner, Miller, Clayton, Eichholtz, 2013, Cengage Learning.

Recommended Readings:

- *Wall Street Journal* (in particular, Wednesday's Real Property section)
- *NY Times* (Sunday's Real Estate Section)
- *Crain's NY Business*
- *The Real Deal*

Course Requirements:

Students will be expected to attend and participate in class discussions as these will factor in to the final grade.

- **Attendance:** Class attendance will be reflected in the final grade. An email notifying the professor of your expected absence is recommended. If a class is missed, the student is responsible for reviewing the posted class notes and make arrangements to meet with the professor to ensure that the lessons of the missed class are understood.
- **Class Participation:** Students are required to participate in all class discussions. Active participation will be an essential component of your grade in the course.
- **Class Preparedness:** Students are required to read all assigned readings for each class, together with any supplemental presentations, case studies and homework assignments. Readings from the required textbook (or e-book) and recommended readings are provided in the Session Topics listing below.
- **Excel:** Many of the concepts in the class will utilize Excel and the successful completion of the Financial Analysis Tutorial projects is required.

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Final Grades:

Grades will be weighted and assigned as follows:

- Attendance and class participation in the discussion of technical material, quizzes, and case studies: 10%.
- Homework Quizzes: 20%
- EXCEL WORKSHOP Assignment 10%
- SECTION 1 EXAM: 30%

- SECTION 2 EXAM: 30%

Electronic Resources:

CourseWorks2/Canvas @ Columbia will be used for:

- Posting of the instructor’s powerpoint slides for the class lectures, post-class.
- Posting of Homework Quizzes, Midterm and Final Exams.
- Student submissions of completed Homework Quizzes and Final Exams.
- Posting of Excel Skills Workshop assignments and completed assignments.
- Announcements, communications and alerts relevant to the course.

Student Laptops:

- Downloading instructor’s class slides after class.
- Downloading and submitting Homework Quizzes, Midterm and Final Exams.
- During Excel Workshop classes & assignments.
- NOT ALLOWED IN LECTURE CLASSES (only Excel Tutorials).

Sessions Topics SECTIONS 1 & 2 for GROUP X (Subject to Change):

<u>Session:</u>	<u>Peiser</u>	<u>Brueggeman</u>	<u>Geltner</u>	<u>Topics</u>
<u>Date</u>	<u>Chapters</u>	<u>Chapters</u>	<u>Chapters</u>	
				SECTION 1
Class 1:			2,6,	Course Overview: Introduction to Real Estate Development Finance: Financial Feasibility of Development Projects.
9/7	1	10,16	28	

				A. Development Debt Overview:
			14,15.3	Types of loans, lender's underwriting.
Class 2:	9		28.2,3	B. Intro to the Homework Case: Denver Apartments
9/10	6,7	16	29.1	C. Short Form Feasibility Analysis: a quick feasibility method with more detail than BOE, before going on to Proforma.
				HOMework 1 SET
Class 3:				<i>Derrington substituting.</i>
9/17				DEVELOPMENT Budget
	4, 2			Calculating Construction loan amount.
	(pp64-70)	17		HOMework 2 SET
		14	27.1	Review Est. Interest Carry
Class4				DCF Proforma for Construction Loan Drawdown and Repayment.
9/24				HOMework 3 SET
Class 5:				Development Loans:
10/1	3		18.2	Construction loans with pay-down through sales e.g. land subdivisions, condominiums, mixed-use.
				Value-add Loans: Financing Property for Acquisition followed by Development
				HOMework 4 SET
10/8				No class. ULI conference

Class 6:
10/15

SECTION 1 EXAM

Class 1:
10/22

SECTION 2

Role of Equity in Financing Real Estate Investment: sources, objectives, types, and risk tolerance.

Class 2:
10/29

Waterfall Basics: partner, partner contributions, risk sharing, terminology, basic structures.

Class 3:
11/5

Waterfalls Continued: variations in structures and distributions, incentives, and economics.

Class 4:
11/12

Structuring

Considerations: investor preferences, taxes, risk tolerance, and regulatory restrictions.

Class 5:
11/19

Structuring

Considerations: investor preferences, taxes, risk tolerance, and regulatory restrictions.

Class 6:
11/26

Risk and Return

Assessment: performance versus benchmarks, cost of alpha, what is fair, governance.

Class 7:
12/10

SECTION 2 EXAM

Sessions Topics SECTIONS 2 & 1 for GROUP Y (Subject to Change):

<u>Session:</u>	<u>Peiser</u>	<u>Brueggeman</u>	<u>Geltner</u>	<u>Topics</u>
<u>Date</u>	<u>Chapters</u>	<u>Chapters</u>	<u>Chapters</u>	
Class 1: 9/10				SECTION 2 Role of Equity in Financing Real Estate Investment: sources, objectives, types, and risk tolerance.
Class 2: 9/17				Waterfall Basics: partner, partner contributions, risk sharing, terminology, basic structures.
Class 3: 9/24				Waterfalls Continued: variations in structures and distributions, incentives, and economics.
Class 4: 10/1				Structuring Considerations: investor preferences, taxes, risk tolerance, and regulatory restrictions.
10/8				No class. ULI conference
Class 5: 10/15				Risk and Return Assessment: performance versus benchmarks, cost of alpha, what is fair, governance. Future of Equity Finance: fees, transparency, crowdfunding. Review.

Class 6:
10/22

SECTION 2 EXAM

SECTION 1

Class 1:
10/29 1 10,16 2,6,
28

Course Overview

Introduction to Real Estate

Development Finance: Financial Feasibility of Development Projects.

Class 2:
11/5 9
6,7 16 14,15.3
28.2,3
29.1

A. Development Proforma:

Real Estate Development Cash Flow Proforma components: Construction Budget & Operating Proforma Valuation.

B. Development Debt Overview:

Types of loans, lender's underwriting.

Class 3:
11/12 2 17
(pp64-70) 14 27.1

Basic Construction Loans:

Construction lending, drawdowns, interest capitalization, interest reserve/carry. Application for construction loans for ground-up development & takeout upon completion.

Class 4:
11/19 3 18.2

Development Loans:

Construction loans with pay-down through sales e.g. land subdivisions, condominiums, mixed-use.

Class 5:
11/26

Acquisition & Development Loans, Value-add Loans: Financing Property for Acquisition followed by Development; Renovation funding.

Class 6:
12/3

REVIEW

Class 7:
12/10

SECTION 1 EXAM