Instructor:

Dr. Patrice Derrington

411 Avery

pad2160@columbia.edu

Financial Modeling Lab Instructor:

Prof. Johnny Din

jcd2193@columbia.edu

Schedule:

Core Weekly Lecture:

Wood Auditorium Monday, 9 am – 11.30 am

Course Assistants: None

Course Description

The objective of this course is for the student to develop a robust working competency with the tools and methods of financial analysis used by real estate developers, lenders and investors. Students will solidify and expand their knowledge of the various concepts inherent in the financial analysis of real estate investments, apply these concepts to making critical analyses of various real estate investment proposals, and build upon these tools in formulating the capital structure of debt and equity for real estate transactions.

Additionally, the student is to extend the capacity for financial analysis to the complex real estate development and construction activities. The goal is for students to further their understanding of, and facility with, the various tools used in evaluating the financial feasibility of real estate development projects, to apply these analytical capabilities in making critical comparisons of various real estate development proposals, and to utilize these tools in formulating the most effective capital structure for maximizing the risk-weighted return during the various stages of these projects.

Associated Financial Modeling Course

In parallel with this course, students **MUST** enroll in and attend the Financial Modeling Course. Students who successfully complete a qualifying test, will be able to waive that course.

The Adjunct Faculty instructor for this course is Professor Johnny Din.

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 investment 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 and the development 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 the student throughout the semester in order to ascertain that specific student's progress in understanding and utilizing the concepts and analytical methods.
3. **FINANCIAL MODELING LAB: Attendance and successful completion of that course is required for passing this course.**

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 Modeling Lab projects is required.

COURSE GRADING CRITERIA

Course grading will be weighted and assigned as follows:

- Attendance and class participation in the discussion of technical material, quizzes, and case studies: 10%.
- Excel Skills Workshop Projects: 10% and critical for course completion
- Homework Quizzes: 25%
- Midterm Exam: 30%
- FINAL EXAM: 35%

CLASS TEXTBOOKS

Recommended Reference Textbooks:

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

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*

ELECTRONIC RESOURCES

Courseworks @ Columbia:

Columbia University's online Courseworks system will be used for posting the course syllabus, selected class materials/handouts, hyperlinks to locations from where case studies and additional reading materials to be used in the course could be found and/or purchased by students. Courseworks will also be utilized for the posting by students of all submissions. Courseworks will also be utilized as a tool for the instructors to post announcements.

Student Laptops and iPhones:

- **NO LAPTOPS, IPADS, OR PHONES ARE TO BE ACCESSED DURING CLASSES, *unless* instructed by the professor.**
- Laptops will be used for downloading, completing and submitting Homework Quizzes, and some parts of the Midterm and Final Exams.
- Completing Financial Modeling Lab assignments.

SESSION TOPICS (Subject to Change)

Session: Date	PEISER et al. Chapters	Brueggeman Chapters	Geltner Chapters	Topics
Class 1: 6/4	5	3	1,8	**Introduction & Course Overview** **Review of Financial Analysis Concepts:** Risk/Return; time value o PV calculations.
Class 2: 6/11	5	3,11	1,8	**Review of Financial Analysis Concepts:** more PV calculations. Ca projections, Net Operating Income.
Class 3: 6/18	5	11		**Review of Financial Analysis Concepts:** Investment Returns (NPV Rates. **Real Estate Valuation methods**
Class 4: 6/25	2,5	9,11,12	11,30	**Building the DCF Proforma:** Income & Expenses: Leases, Operati Budgets, Capital Expenditure, cap ex reserve, use of Market Data.
Class 5: 7/2	5	2	13	**Real Estate Debt Review– Part I**

	12, p 381-395 4,5		Financial Leverage, Underwriting Loans on Income Properties, Mort Structures, Fixed Interest Rate Mortgage Loan Schedules
Class 6: 7/9	6,11	15.2 16,17	**Real Estate Debt Review – Part II** For Income Properties: Adjustable and Floating Rate Mortgage Loa Outstanding Balances, Refinancing, Loan Conditions. **DCF Proforma: adding leverage**
Class 7: 7/16			**Mid-Term in class CLOSED BOOK**
Class 8: 7/23	11, 12 18	13,14 15	**Review of Midterm**. **Real Estate Taxes:** Income Tax, Capital Gains Tax, Depreciation
Class 9: 7/30			**Building the Levered DCF Proforma:** Levered After-Tax Cash Flo Investment Returns, IRR, ROE, ROC, Equity Multiple
Class 10: 8/6			**Final Exam in class**