

*Advanced Topics in Real Estate Finance and Development Process*

*Session 1 (038-79411D): Tu & Th, 2:00 to 3:50 PM, RGL 100*

*Session 2 (038-79412D): Thursday, 6:00 to 9:30 PM, RGL 219*

**A. COURSE OVERVIEW**

This is an advanced finance course for real estate development following RED 542. It focuses on developing valuation and decision making skills in the real estate development process with special emphasis on how to structure, finance, and evaluate various types of development projects. The course is applied in nature and case-oriented in that functions and tools discussed in other MRED courses will be brought together to analyze various real estate development cases. Topics include quantitative approaches to property valuation, the classic valuation paradigm, performance ratios, pro-forma analysis, simulation methods of risk analysis, location analysis, tax shelter and real estate valuation, and corporate real estate issues such as ownership and deal structuring, joint ventures, sale-leaseback. In addition, this course also introduces the real options way of thinking and demonstrates how a strategic development decision should be made in today's extremely turbulent world. Students who take the course should be able to analyze the full financial implications of a variety of deal structures in real estate development for all parties involved. This knowledge is critical for analyzing potential development opportunities and for presenting a persuasive case to the lenders and investors.

**B. REQUIRED CLASS MATERIALS**

***Text Book***

Mike E. Miles, Gayle Berens, and Marc Weiss, *Real Estate Development: Principles and Process*, Third Edition, Urban Land Institute. (MBW) Only a few chapters will be required reading. However, the rest of the book provides basic background material and some context for the concepts covered in class.

***Case Book***

William J. Poorvu, *The Real Estate Challenge: Capitalizing on Change*, Prentice Hall. (WP)

***Supplementary Readings***

Martha Amram and Nalin Kulatilaka, *Real Option: Managing Strategic Investment in an Uncertain World*, Harvard Business School Press. (AK)

Breuggeman and Fisher, *Real Estate Finance and Investments*, 10th Edition, Homewood Illinois: Irwin, 1997. (BF)

***Class Notes***

Lecture notes will be made available online at the Blackboard CourseInfo web site (go to [https://learn.usc.edu/courses/red\\_546\\_xxxxx\\_xxx/](https://learn.usc.edu/courses/red_546_xxxxx_xxx/) where xxxxx\_xxx is the course control number). Homework assignments and answer keys will also be posted on the Blackboard CourseInfo web site.

### ***Financial Calculator***

You must have a financial or programmable calculator capable of computing annuities and present values. You are also responsible for knowing how to use these functions. You should bring the calculator to classes, particularly in the quiz sessions and exams.

### ***ARGUS 8.6 Financial Software***

You should make arrangement to be able to access the ARGUS 8.6 Financial Software. A promotional ARGUS student license may be arranged at \$100 per student. The use of Argus 8.6 in the classroom and for case analysis, where appropriate, is not meant to provide an additional burden to the student but rather to provide a learning tool that will at once help inform the student about some of the minutia that is critical in real estate financial modeling (e.g., lease reimbursement or step-up formulae) and assist in the placement process. Argus software is widely used by real estate companies for acquisition analysis, investment sales, asset management, lease negotiations, development feasibility and portfolio analysis. Also, the software includes demo cases for every property type. You should work these demos as you will quickly learn some of the modeling tricks possible with the software.

## **C. COMPUTER LAB**

The computer lab is designed as a supplement to the lectures to teach basic real estate financial modeling skills using Microsoft Excel. The lab will provide detail guidance to students in building models to analyze various product types, including rental properties, for-sale residential, retail/office, and land development. This lab will prepare students for the comprehensive exam, but is not exclusively designed to that end. Attendance is mandatory unless arrangements have been made with the instructor.

## **D. GRADING**

### ***Case Analysis (15%)***

There are four case analysis sessions. Cases are group projects. You will choose your own group of 3-4 members and will work with the same group on all cases for the class. Every member should actively participate in preparing for every case for the class. Instructor will randomly call on one of the members to represent the group during the case analysis in class. Grades will be given based on your performance in preparation and positive contribution during the discussion.

### ***Homework Case Assignment (15%)***

There is one homework case assignment. Homework case assignment is an individual project. Everyone should do the Angus Cartwright case and hand in the individual case analysis before the due time. The assignment will be graded by TA. Suggested analysis will be discussed in class, and will also be posted on the Blackboard CourseInfo web site.

### ***Quizzes (15% optional)***

There are three quizzes in class before the MRED Comp Exam. The main purpose of the quiz sessions is to help students to get familiar with the skills needed in the Midterm and the MRED Comp Exam. The 15% for the quizzes is optional. You can elect to transfer a maximum of two of your 5% quiz grades to your midterm and a maximum of one of your 5% quiz grade to your final project, if you feel you do not perform well in your quizzes. Suggested answers to the quizzes will be discussed in class, and will also be posted on the Blackboard CourseInfo web site.

**Midterm Exam (15%)**

There is one open book midterm exam. You are allowed to use your financial calculator during the midterm exam. However, no laptop is allowed in the midterm. The midterm will be graded by TA. Suggested analysis will be discussed in class, and will also be posted on the Blackboard CourseInfo web site.

**Final Project Presentation (40%)**

The final presentation may be an analysis of a proposed real estate development project, or an in-depth examination of a topic related to real estate development and/or real estate finance. The presentation may be prepared by individual students or teams of not more than two students. Students should prepare a brief description of their projects or topics for review by the end of the sixth week of class. Your final presentation counts for 30%, and your positive contribution to the discussion and comments to your classmates' final presentations counts for 10%.

**E. CLASS MEETINGS**

Session No. and Dates		Topic	Readings & Assignments
1	January 9, 11 (Deng)	a. Course Overview. b. Introduction to the Blackboard CourseInfo Web Tools. c. Overview of Real Estate Development. d. The Classic Valuation Paradigm.	MBW Ch. 1 WP Ch. 1, 2, 14, and 24
2	January 16, 18 (Deng, Yang)	a. Introduction to the Argus 8.6 Financial Software. b. Mortgage and Mortgage Mechanics, Construction Loans, and Permanent Loans. c. Take Home Quiz on Basic Financial Evaluation Tools.	Handouts BF Ch. 15
3	January 23, 25 (Beck)	a. Basic Pro Forma Tools: Income and Expense Analysis for Office/Warehouse Facility. b. Case Analysis: South Park IV.	MBW Ch. 16 WP Ch. 6 Handouts
4	January 30, February 1 (Beck)	a. Pro Forma Analysis: Office for Rent. b. Pro Forma Analysis: Residential Housing for Rent. c. Case Analysis: Lakeside Center.	WP Ch. 20 Handouts
5	February 6, 8 (Beck)	a. Tax Shelter and Real Estate Valuation. b. Pro Forma Analysis: Retail and Shopping Mall. c. Case Analysis: Concord Center.	WP Ch. 15 Handouts
6	February 13, 15 (Beck)	a. Pro Forma Analysis: Hotel Development b. Pro Forma Analysis: Residential Housing for Sale. c. Case Analysis: Grosvenor Park.	WP Ch. 16, 21 Handouts
7	February 20, 22 (Beck)	a. Pro Forma Analysis: Land Development. b. Investor Returns and Joint Ventures. c. Quiz on Pro Forma Analysis.	MBW Ch. 2 Handouts
8	February 27, March 1 (Deng)	a. The Limits of Pro Forma. b. Development Under Uncertainty. c. Simulation Methods of Risk Analysis. d. Angus Cartwright Case Due on March 1.	Handouts

9	March 6, 8 (Deng)	a. Angus Cartwright Case Analysis. b. Quiz on Analytic Tools Under Uncertainty. c. Mid Term	Handouts
	March 12~ 18	Spring Break, No Class	
10	March 20, 22 (Deng & Beck)	a. Review of Midterm Exam. b. Comp Exam Review Sessions.	
	March 23, 28	Comp Exam, No Class	
11	March 29 (Deng & Beck)	Midterm Review of Course Project, Progress Report, and Q&As.	
12	April 3, 5 (Deng)	a. Impact of E-commerce in Real Estate Development. b. Guest Speaker on Corporate Real Estate Issues, Forms of Ownership, and Capital Markets.	Handouts
13	April 10, 12 (Deng)	Introduction to Real Option Approach.	AK Ch. 1-3, 7
14	April 17, 19 (Deng & Beck)	Course Project Presentations.	
15	April 24, 26 (Deng & Beck)	Course Project Presentations.	

#### F. INSTRUCTOR ACCESS

Professor Yongheng Deng  
Office: RGL 328  
Tel: (213) 821-1030  
E-mail: [ydeng@usc.edu](mailto:ydeng@usc.edu)  
Office hours: Tu & Th 4:00 p.m. ~ 5:00 p.m. or by appointment

Professor Ken Beck  
Tel: (310) 315-9770  
E-mail: [kenbeck@earthlink.net](mailto:kenbeck@earthlink.net)  
Office hours: by appointment

Lab Instructor: Terri Dickerhoff  
Tel: (213) 388-5807  
E-Mail: [terrid@usc.edu](mailto:terrid@usc.edu)  
Lab Hours: Tuesday 4 - 6

TA: Lihong Yang  
Office: RGL 311  
Tel:  
E-mail: [lihongya@usc.edu](mailto:lihongya@usc.edu)  
Office/Lab hours: TBA