

**USC PRICE SCHOOL OF PUBLIC POLICY  
DOLLINGER MRED PROGRAM - SPRING 2022**

**RED545: ADVANCED REAL ESTATE & FINANCIAL MODELING**

***PRELIMINARY SYLLABUS***

Instructor: Ehud G. Mouchly  
Class Schedule: Four Saturday sessions from 9:00am to 5:00pm  
**Dates: 1/22/22, 2/12/22, 3/5/22, 4/2/22**  
Location: RGL 100

1) **Course Description, Objectives and Prerequisites:**

- a) This course is designed to give you a competitive edge through training in efficient quantitative real estate problem solving. We will focus on computerized modeling as an integral tool in decision making and deal structuring. The course will be of greatest benefit to those of you who already have experience in financial and real estate analysis by learning advanced interpretive and technical skills using computerized spreadsheet software.
- b) The advanced nature of the course refers to the complexity of the problems that we will analyze and to the technical level of spreadsheet analysis and modeling. As a prerequisite to attending this course, you are expected to have working knowledge of real estate accounting and finance. You should also have generalized spreadsheet skills, such as spreadsheet commands and functions, simple macros, use of range names, dynamic linking, etc.
- c) You will receive the first "homework" assignment prior to the first meeting of the class. I will determine the eventual instruction level of the course at the first meeting of the class based on your initial work product. That level will depend on my evaluation of the range of registered students' demonstrated real estate finance and accounting knowledge, and modeling skill levels.

- 2) **Course Plan:** Like all good plans, this plan, too, is a basis for change... The following course plan is, thus, a plan – subject to the general level of knowledge and skills set of members of the class. It is an [adjustable] plan that may change to be as realistically advanced as possible to enhance your modeling skills.

- a) 1<sup>st</sup> session:
  - i) Self-introductions. Sharing of experiences and expectations from the course;
  - ii) "Why model?" Introduction to financial and real estate modeling;
  - iii) Nuts and bolts of model building;
  - iv) Revisiting the 1<sup>st</sup> assignment which you will have completed prior to the first session. This will help establish a knowledge base line of real estate accounting and finance, and modeling aptitude of registered students.
  - v) Briefing on take-home assignment
- b) 2<sup>nd</sup> session:
  - i) Review of take-home assignment
  - ii) Introduction and working through a "modeling toolkit;"
  - iii) Dynamic relationships between absorption and lease-up or sales, revenues and cost projections;
  - iv) Complex debt financing, including lender participation, subordination, etc.;
  - v) Briefing on take-home assignment
- c) 3<sup>rd</sup> session:
  - i) Review of take-home assignment
  - ii) Joint venture / partnership structuring and deal modeling. This will include preferences and priority distributions between classes of equity sources, such as look-back-IRR and look-back-ROI ("waterfalls"), etc.;
  - iii) Modeling problems in land development, home-building and mixed-use projects;
  - iv) Systematic and inferential sensitivity analysis including land use optimization and residual valuation
  - v) Briefing on take-home assignment
- d) 4<sup>th</sup> session:
  - i) Review of take-home assignment
  - ii) Systematic treatment of real estate portfolios;
  - iii) Presentation techniques;
  - iv) Practical applications of computerized models: avoidance of overkill and underkill;
  - v) Utilization of internet and intranet networks for joint modeling by project teams
  - vi) Briefing on take-home "Final."

3) **Teaching Method:**

- a) The basic course format will be generating and working through real estate computerized business models and case studies, including "reverse engineering," simulations, analytical

- calculations, identification of key analytic issues and inferential modeling. We will make time during class for discussion and hands-on Q&A.
- b) Our sessions will be in a workshop format combining lecture and interactive sessions devoted to skill-building in advanced real estate financial analysis, modeling, exercises and review of assignments. If you need introductory or remedial training in basic spreadsheet use and real estate financial analysis, this is **not** the place.
  - c) Student-submitted case studies are encouraged. If yours is a particularly thoughtful and interesting project, you will be allowed – subject to discretionary approval – to substitute your project analysis in lieu of class assignments.
  - d) In addition to the “homework” session assignments, short periodic readings will also be assigned.
- 4) **Prerequisites for Registered Students:**
- a) Successful completion of RED542 (or equivalent) and either successful completion or concurrent attendance in RED546 (or equivalent);
  - b) A solid working knowledge of real estate financial analysis, understanding of real estate accounting, and spreadsheets use;
- 5) **Auditing the Course:**
- a) Registered USC students may audit the class with prior instructor permission, but only if they commit to attend every class session.
  - b) Auditing students need not submit assignments. They will be asked to sit in the “peanut gallery.” Registered students will have absolute priority in class discussions.
- 6) **Hardware & software:** All students must have a laptop / notebook computer in their possession with access to high-speed internet. Microsoft Excel (Excel 2016/2019/365) will be the spreadsheet of instruction. Some assignments will benefit from use of Microsoft Word and PowerPoint.
- 7) **Collaboration:** Unlike the “real world,” joint work on a single computer or networked / shared work in class or on-line defeats the learning objective of individual skill-building and is counter-productive. Having said that, some specific collaborative work may occasionally be specifically assigned.
- 8) **Communications:** All students must have USC e-mail accounts capable of attaching and detaching, encoding and decoding Microsoft Office and Adobe Acrobat PDF files. Homework assignments and reviews will be handled only via e-mail.

9) **Suggested / Recommended Readings:**

There is no mandatory textbook for this class. However, you will benefit by referring to appropriate sections in the following recommended books and resources (in no particular order):

- a) Brueggeman & Fisher. Real Estate Finance & Investments, 16<sup>th</sup> edition, 2019, McGraw-Hill Education (17<sup>th</sup> edition expected to be published in December 2021)
- b) Peiser & Hamilton. Professional Real Estate Development, 3<sup>rd</sup> edition, 2019, Washington: the ULI
- c) Long. Finance for Real Estate Development, 2019, Washington: the ULI
- d) Alexander, Kusleika, Walkenbach. Excel 2019 Bible, 2018, Wiley
- e) Staiger. Foundations of Real Estate Financial Modelling, 2<sup>nd</sup> edition, 2018, Routledge
- f) Zuckerman & Blevins. Real Estate Development Workbook and Manual, Paramus: Prentice Hall (*out of print, but worth looking for*)
- g) Zuckerman. Real Estate Investment and Acquisition Workbook, Aspen Law & Business Publishers (*out of print, but worth looking for*)
- h) Online training and support resources, e.g.:
  - i) <https://support.microsoft.com/en-us/office/excel-video-training-9bc05390-e94c-46af-a5b3-d7c22f6990bb?ui=en-us&rs=en-us&ad=us>
  - ii) [Lynda.com courses](#) - accessible through your personal account at [my.usc.edu](http://my.usc.edu)

10) **Grading:** Students may opt for either a letter grade or Pass/Fail grade (subject to School regulations). If you choose a letter grade, it will be awarded based on the follows:

- a) 1/3, for class participation, including: real-time spontaneous solutions for modeling financial and real estate issues; suggestions for alternative solutions to modeling issues; demonstration of inferential thinking; application of theories learned in RED 542 and RED 546 or equivalent courses to real world problems.
- b) 1/3, for demonstration of increased skill levels from session to session through work on take-home assignments;
- c) 1/3, for "Final" take-home assignment. There will not be an in-class final examination.

11) **Class Schedule:** Class will meet for a full-day Saturday workshop every three or four weeks. Attendance in class workshop meetings is mandatory. We will also convene weekly for a one-hour video conference, where attendance is optional.

12) **Office Hours:** No set time. Students may request a short individual phone/video conference with the instructor at mutually convenient times.

## Statement on Academic Conduct and Support Systems

### Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” [policy.usc.edu/scampus-part-b](http://policy.usc.edu/scampus-part-b). Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on [Research and Scholarship Misconduct](#).

### Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University’s educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at [osas.usc.edu](http://osas.usc.edu). You may contact OSAS at (213) 740-0776 or via email at [osasfrontdesk@usc.edu](mailto:osasfrontdesk@usc.edu).

### Support Systems:

*Counseling and Mental Health - (213) 740-9355 – 24/7 on call*  
[studenthealth.usc.edu/counseling](http://studenthealth.usc.edu/counseling)

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

*National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call*  
[suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

*Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call*

[studenthealth.usc.edu/sexual-assault](http://studenthealth.usc.edu/sexual-assault)

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

*Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086*  
[eotix.usc.edu](http://eotix.usc.edu)

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

*Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298*  
[usc-advocate.symplicity.com/care\\_report](http://usc-advocate.symplicity.com/care_report)

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

*The Office of Student Accessibility Services (OSAS) - (213) 740-0776*

[osas.usc.edu](https://osas.usc.edu)

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

*USC Campus Support and Intervention - (213) 821-4710*

[campussupport.usc.edu](https://campussupport.usc.edu)

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

*Diversity, Equity and Inclusion - (213) 740-2101*

[diversity.usc.edu](https://diversity.usc.edu)

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

*USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call*

[dps.usc.edu](https://dps.usc.edu), [emergency.usc.edu](https://emergency.usc.edu)

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

*USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call*

[dps.usc.edu](https://dps.usc.edu)

Non-emergency assistance or information.

*Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)*

[ombuds.usc.edu](https://ombuds.usc.edu)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

*Occupational Therapy Faculty Practice - (323) 442-3340 or [otfp@med.usc.edu](mailto:otfp@med.usc.edu)*

[chan.usc.edu/otfp](https://chan.usc.edu/otfp)

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

