USC PRICE SCHOOL OF PUBLIC POLICY
MRED PROGRAM - SPRING 2021

RED545: ADVANCED REAL ESTATE & FINANCIAL MODELING
PRELIMINARY SYLLABUS

Instructor: Ehud G. Mouchly
Class Schedule: Four Saturday sessions from 9:00am to 5:00pm
                     Dates: 1/23/21, 2/20/21, 3/20/21, 4/17/21

Location: TBD – either on-line or on campus

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) <u>1st session</u>:

   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 1st 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) <u>2nd session</u>:

   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) <u>3rd session</u>:

   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 project optimization;

   v) Briefing on take-home assignment

d) <u>4th session</u>:

   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) 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 be occasionally 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 books and resources (in no particular order):

a) Brueggeman & Fisher. Real Estate Finance & Investments, 16th edition, 2019, McGraw-Hill Education

b) Peiser & Hamilton. Professional Real Estate Development, 3rd edition, 2019, Washington: the ULI

c) Long. Finance for Real Estate Development, 2019, Washington: the ULI

d) Walkenbach, John. Microsoft Excel 2016 ("Excel 2016 Bible"), 2015, Wiley

e) Staiger. Foundations of Real Estate Financial Modelling, 2015, 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.office.com/en-us/article/Excel-video-training-9bc05390-e94c-46af-a5b3-d7c22f6990bb

   ii) Lynda.com courses - accessible through your personal account at 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 meetings is mandatory. We will also convene weekly for an optional one-hour video conference, where attendance is optional.

12) **Office Hours:** No set time. Students may request a short individual phone/video conference 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. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call

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

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

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

Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298

equity.usc.edu, titleix.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

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

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

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

campussupport.usc.edu

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

Diversity at USC - (213) 740-2101

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, 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

Non-emergency assistance or information.

"DURING THE TIME YOU'VE BEEN CREATING THE COMPUTER MODEL, WE'VE BUILT IT"