

**Wayne State University**  
**Department of Urban Studies and Planning**  
**UP 6310: Real Estate Development & Finance**  
**Winter 2021**

**COURSE INFORMATION**

**INSTRUCTOR**

Dietrich A. Knoer  
Email: dknoer@wayne.edu  
**Office Hours:**  
Mondays before class from 5:00-5:30

**CLASS**

Mondays 5:30-8:00pm  
CRN 23110  
3 Credits

**COURSE DESCRIPTION**

This course uses several teaching methods to familiarize students with the key elements of the real estate development and finance process. Students who successfully complete the course will be able to (1) identify the various financial and non-financial objectives and constraints of key actors in the real estate development process; (2) complete a pro forma financial analysis of real estate developments; and (3) place that financial analysis in a broader institutional and market context to make sound development decisions.

The course is designed for upper-level graduate students, particularly those seeking professional degrees. It may be suitable for some undergraduate juniors and seniors, particularly those with strong academic records and demonstrated mathematical proficiency. Undergraduates will be expected to meet the same academic standards as those required of graduate students.

In the first half of the course (prior to the mid-term exam) we will focus on laying the foundation for financial analysis and putting it all into context with the help of a few Harvard Business School cases, feasibility studies and excel worksheets. We will also make an effort in each class to discuss current market events.

In the second half of the course, we will work in teams of two (max. three) to identify, analyse and prepare a Term Project, summarized in a presentation that will serve as your final exam.

**You all are such an extraordinary mix of talented and experienced students, you will learn a lot by listening to and working with students from different disciplines. I want you to select your own diverse, interdisciplinary team members for your Term Project. Pick partners that compliment you, both “right brain and left brain” focus, for a better team experience.**

**Therefore, to get to know each other, please bring a 1 page summary of your answers to the following questions to the first class on January 11.**

- 1) Where have you lived in an urban setting that offered a walkable downtown and adjacent neighborhoods? What are its Walkscore, Transit & Bike Scores from Walkscore.com?
- 2) Critique the experience. What would it take to improve the two scores?
- 3) What memorable jobs/internships/life experiences have you encountered that related to living or working in a lively downtown or neighborhood?
- 4) What top 3 dream cities do you hope to live and work upon graduation, and ideally, doing what? What is the dream job?
- 5) Why are you taking this class? Really think about this and give me a thoughtful reply! What makes you passionate about real estate?
- 6) What do you consider your special genius? What excites you: numbers, complexity, design, entrepreneurial opportunity, organizing a team towards common goals? This is important for the formation of your team.
- 7) Be sure to add your picture of your favorite “Third Place.” Explain why it’s your favorite place. “Third Place:” is what you think makes a city an attractive place to live, work, think, play, raise a family, retire, etc. For more information on Third Place, google it.

## **COURSE MATERIALS AND RESOURCES**

Reading and case assignments are detailed in the syllabus. Some of the materials will be made available on Canvas. Most students will find it advantageous to purchase the remaining materials on-line and download them from the Harvard Business School (HBS). You will need a credit card to make these purchases, and you will want to make the purchases from a computer where you have access to a good printer. The most economical way to purchase these materials is to buy the course pack at

<https://hbsp.harvard.edu/import/781206>

Students are strongly advised to download the materials well in advance of when you will need them, rather than waiting until the last minute. Please notify the instructor immediately if you have difficulty accessing the HBS materials.

The Internet can be an invaluable resource for real estate information. The Urban Land Institute (ULI) has one of the better sites, and students are encouraged to browse this site early in the course ([www.uli.org](http://www.uli.org)). ULI publishes a wide variety of materials useful to private and public sector participants in the real estate development process. In addition to the widely read *Urban Land Magazine*, they offer a wide variety of basic and topical reference books. Two of their most popular are:

*Professional Real Estate Development*, 3<sup>rd</sup> ed. by Richard B. Peiser and David Hamilton (Washington, D.C.: The Urban Land Institute, 2012).

*Real Estate Development: Principles and Process*, 5<sup>th</sup> ed. by Mike E. Miles, Laurence M. Netherton, and Adrienne Schmitz. (Washington, D.C.: The Urban Land Institute, 2015).

The real estate portions of *Crain's Detroit Business* provide current information about on-going and proposed developments in the city. It is highly recommended for anyone who expects to practice in this region ([www.crainsdetroit.com](http://www.crainsdetroit.com)).

A good text book for this class is: (purchasing the book is **not** required)

*Investing in Real Estate*, 7<sup>th</sup> edition Gary W. Eldred

Preparation of exercises, cases and exams for this class will require use of a calculator that can execute basic real estate financial calculations. The model recommended for purchase is the HP-12C; the basic model will meet all your needs, so purchase of Premium or Platinum models is not necessary. It comes with a very good user manual, complete with step-by-step examples, which you will need. It is widely available at office supply stores (call ahead to confirm availability), but better prices are typically available on line. Used calculators are less costly, but rarely come with a manual. The manual is available at no cost on line, but is quite long to download. The features of the HP-12C are also available as applications for smart phones, which are considerably less expensive than the calculator. Popular options are from Hewlett Packard and RLM Tools ([www.rlmtools.com](http://www.rlmtools.com)), but newer options may also be available.

An alternative model, the Texas Instruments BAII Plus, performs all the necessary functions and is generally somewhat less expensive, depending where you find it. Note, however, that the HP instruments work very differently from the TI instruments and we will not discuss how to use the TI instruments in class (and the user manual for the TI is not very good), so this option is not recommended unless you already have this model and know how to use it. The TI 83+ also has a program (TVM Solver) that is suitable; download instructions from [http://education.ti.com/downloads/guidebooks/graphing/83p/83m\\$book-eng.pdf](http://education.ti.com/downloads/guidebooks/graphing/83p/83m$book-eng.pdf). If you already have a calculator that you think might be suitable, or are shopping for a phone app, check to make sure it can calculate monthly mortgage constants, amortization (monthly and annual), net present value (NPV), and internal rate of return (IRR). Please bring your calculator to all class meetings; you will need it to complete the homework due at the second class.

Use of computer-based spreadsheets is commonplace in the real estate industry. Students are encouraged to create their own spreadsheet programs, as appropriate, in completing course assignments. However, it is critical that students understand the basic concepts and methods involved in real estate calculations before using the computer as an efficient aid.

## WRITTEN ASSIGNMENTS AND EXAMINATIONS

The course will be a mix of case discussions, exercises, lectures, guest presentations and the Term Project. **Active classroom participation by students -- based on prior preparation of cases and reading materials -- is required throughout the course.** To be adequately prepared for class, you should know the case facts as well as the decision makers in the case would know them, have completed the analysis – including the basic financial analysis, and be prepared to explain the basis of the recommendation you have reached.

Written course requirements include a feasibility study, a mid-term examination, and a final exam in the form of a Term Project.

March 1	Feasibility Study Exercise
March 8	Mid-Term Exam
April 26	Final Term Project Presentation

*The Term Project will be done in teams of 2-3 students. We will work on an 11-slide presentation during the second half of the course. The slides will focus on site analysis and overall feasibility analysis of the project.*

## GRADING

Grades will be based on case analyses, exams, term project and class participation, as shown:

Feasibility Study	20%
Mid-Term Examination	25%
Final Term Project	30%
Class Participation	25%

**All graded assignments must be completed to receive a course grade.**

## STANDARDS OF STUDENT CONDUCT

Academic work, like the practice of professional planning, is governed by standards of ethical conduct. Plagiarism of any kind will result in a failing grade on the assignment in question. If you are uncertain about what constitutes plagiarism, discuss the matter with the instructor before engaging in the questionable behavior and/or consult the guidance provided in the University's policy statement on academic integrity at: [www.doso.wayne.edu/judicial/academic-integrity.htm](http://www.doso.wayne.edu/judicial/academic-integrity.htm).

Students are encouraged to form study groups to prepare the cases for class discussion. Be forewarned, however, that study groups should NOT be sessions in which students work through the case step by step together, as this easily leads those less well prepared to become dependent on their peers rather than maintaining their intellectual independence. Rather, each student should come to the study group having already worked through the material. This process allows students to identify any errors that need correction (and that signal the need for further study), and enables the group to focus on the issues the case presents. **All written work, including tabular material, is to be your individual, original work.**

## STUDENTS REQUIRING ACCOMMODATION

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. Also see: <http://studentdisability.wayne.edu>

The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-577-3365 (TDD only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours or at another agreed upon time to discuss your needs. Accommodations cannot be applied retroactively, so you should get your accommodation letters as early in the semester as possible.

**CLASS SCHEDULE – Note that dates after spring break are tentative, pending the availability of guest presenters**

January 11	Student / Teacher introductions Introduction to Real Estate Development; Stedman Place (Case Discussion)
January 18	Martin Luther King Day – CLASS DOES NOT MEET
January 25	Pro Forma I: Net Operating Income (NOI), Before Tax Cash Flow (BTCF), and After Tax Cash Flow (ATCF)
February 1	Revere Street (Case Discussion)
February 8	Pro Forma II: Net Cash from Sale, Future Benefits (Discounting, NPV, IRR), and Participating Mortgages
February 15	Angus Cartwright IV (Case Discussion)
February 22	Guest Presenter
March 1	**Feasibility Study Exercise (Case Discussion)
March 8	Mid-term Examination
March 15	SPRING BREAK
March 22	Term Project preparation
March 29	Term Project progress discussion
April 5	Term Project progress discussion
April 12	Term Project progress discussion
April 19	Term Project progress discussion
April 26	Term Project Final Presentations

\*\*INDICATES THAT A WRITTEN CASE ANALYSIS IS DUE.

**COURSE SYLLABUS**

**January 11**                    **INTRODUCTION TO REAL ESTATE DEVELOPMENT**

Reading:            "Stedman Place: Buy or Rent" by Andre Perold and David Scharfstein (Harvard Business School Publishing, September 2006).

Gary Eldred: *Investing in Real Estate*, 7<sup>th</sup> Edition, Chapter One – pp. 1-19

**January 18**                    **Martin Luther King Day – CLASS DOES NOT MEET**

**January 25**                    **PRO FORMA I: NET OPERATING INCOME (NOI), BEFORE TAX CASH FLOW (BTCF), & AFTER TAX CASH FLOW (ATCF)**

Readings:

William J. Poorvu and Samuel Plimpton, "Financial Analysis of Real Property Investments," (Harvard Business School Publishing, revised August 8, 2013), pp. 1-18.

Gary Eldred: *Investing in Real Estate*, 7<sup>th</sup> Edition, Chapter Two, pp. 22-56

Study Exercises: "Debt Service Exercise" and "Depreciation Exercise"

**February 1**                    **REVERE STREET**

Reading:            Arthur J. Segel & William J Poorvu, "Revere Street," (Harvard Business School Publishing), April, 2008.

Be prepared to discuss the following questions:

1. How did Alexander search for his property?
2. How would you evaluate the Revere Street property? What are the risks and rewards?
3. How would you evaluate Alexander's search for a mortgage?
4. What do the numbers look like? Should Alexander make this investment?

Study Exercise: Prepare an Income Statement for the Revere Street property in its first stabilized year, including both before tax and after tax cash flows. Specify any assumptions you make.

**February 8**                    **PRO FORMA II: NET CASH FROM SALE, FUTURE BENEFITS (NPV & IRR)**

Readings:

Poorvu, "Financial Analysis of Real Property Investments," pp. 17-25.

Study Exercise: "NPV and IRR Exercise"

**February 15            ANGUS CARTWRIGHT IV**

Reading: Kenneth J. Hatten, William J. Poorvu, Howard H. Stevenson, Arthur J. Segel, and John H. Vogel, Jr., "Angus Cartwright IV," (Harvard Business School Publishing), July, 2017.

Written Case Analysis – please bring to class for discussion

**February 22    GUEST PRESENTER**

**March 1            FEASIBILITY STUDY EXERCISE**

Readings:  
"Feasibility Study Exercise"

Written Assignment Due: Submit no later than the beginning of class answers to all of the questions listed at the end of "Feasibility Study Exercise." **Please retain a copy of your submission for use during the class discussion. YOU WILL NOT GET THIS ASSIGNMENT BACK BEFORE THE MID-TERM EXAMINATION.**

**March 8                    MID-TERM EXAMINATION**

**March 15                SPRING BREAK**

**March 22                Preparation for Term Project**

- Team Selection
- Review past term projects
- Review each team's site selection

Key considerations for my grading of your term projects:

- **Are you creating value?** Measurements include a likely increase in the Walkscore; an increase in the value of the project after stabilization; and is your project worth more than its cost (NOI at stabilization divided by the cap rate); have you created a project likely to appreciate in value (rents will go up by more than CPI)
- **Are you creating a sense of place?** Are workers, residents and relaxers going to seek out your project and neighborhood? Are you implementing your Millennial demographic's

quality of life requirements in your project. First floor uses should include coffee, café, bar, bistro, restaurant, etc. for at least 50% of the space. Residential for sale or for rent above.

- **Does this project make economic sense?** If not now, in 2 years? In 5 years? What has to happen?
- **Does your project convey principles valuable to future students?** Are you proud of your work? Will it help you get a job?
- **Market Research.** Make your proposals as realistic as possible. Implement your Millennial demographics quality of life requirements in your project. First floor uses should include coffee, café, bar, bistro, restaurant, etc. for at least 50% of the space. Residential for sale or for rent above.
- **Stakeholder Analysis** of all the key parties to find a win-win for all legitimate points of view.

<b>March 29</b>	<b>Team Project progress discussion</b>
<b>April 5</b>	<b>Team Project progress discussion</b>
<b>April 12</b>	<b>Team Project progress discussion</b>
<b>April 19</b>	<b>Team Project progress discussion</b>
<b>April 26</b>	<b>Term Projects – Final Presentations</b>