RE420/RE720: URBAN AND REGIONAL ECONOMICS

(Real Estate/Economics/Urban and Regional Planning)
RE420 Lectures 3, 4 and RE720 Lecture 1
Course Credits: 3
Spring 2021

GENERAL INFORMATION

Instructor: Yongheng Deng
Lectures: RE420(003)/RE720(001): M, W 2:30 pm – 3:45 pm, synchronous online lecture via zoom
RE420(004): M, W 4:00 pm – 5:15 pm, synchronous online lecture via zoom
Office hours (via zoom): M, W 5:15 pm – 5:45 pm, or by appointment
Email: yongheng.deng@wisc.edu

Please log into the Canvas website (https://canvas.wisc.edu/courses/230236), click on the zoom in the navigation panel to join the class. Zoom meetings ID: 924 4478 6678.

TA: Congyan Han
TA office hours (via zoom): Thursday 2:00-3:30 pm, or by appointment
(TA's office hours zoom meetings ID: 913 5305 9847).
TA Email: chan74@wisc.edu

COURSE PREREQUISITE

Economics 101

TEACHING AND LEARNING

Real estate should be taught as a process of dynamic interactions rather than function and historical facts. The result should be a real estate entrepreneur with the creativity of Leonardo da Vinci, the sensitivity for the natural world of John Muir, and the political humanity with cash management for profit of James Rouse.

—— J.A. Graaskamp

The goal of a college education is to encourage students in critical thinking. Therefore our goal is to create an active learning environment in class instead of teaching as telling. Students learn more when instructors engage them and give them opportunities to think about the materials in class. If the students connect the dots on their own, they will remember it.

Course Description

Urban economics is the study of cities, economic activities therein, and the determinants of those activities. Development in the urban and real estate sector can often be a reflection or manifestation of broader societal issues. For instance, rising house prices can trigger debates about wealth inequality, and digital technological innovation is now reshaping urban development and the residential and commercial real estate markets. The real estate related financial capital markets nurture entrepreneurship and economic gains in the region and across the globe. Green technology is fostering healthy urban lifestyles and sustainable urban environments.

Urban economics brings together tools developed in the broader fields of economics such as micro- and macro-economics, financial economics, econometrics and statistics, labor economics, public economics, and economic policy studies, etc. By utilizing these tools, we can analyze social issues relating to urban society, such as housing price and affordability, urbanization and migration, demographic shifts and aging, education, labor participation, crime, segregation, congestion and pollution, smart and innovative cities, environmental sustainability and socially responsible development.

This semester, our goal is to guide the students to take a holistic view of urban and housing economics, understand the social-economic challenges we face through the dynamic interaction between the real estate markets and urban space, and learn how we may tackle these problems.

Students are expected to learn how to apply economic principles and tools to analyze urban phenomena and find solutions to urban problems.

Learning Outcomes

In this course, students will:

- Learn stylized facts about cities, their sizes and locations, and their contributions to economic and social development
- Understand the demand and supply for housing and real estate markets
- Understand the role of agglomeration (and congestion) and the city growth
- Understand the households and firms location choices
- Understand the determinants and measurement of housing and land prices
- Understand the real estate cycles, housing market speculation, and bubbles
- Know how real estate developers approach their investment decisions
- Know how to apply data to analyze housing and real estate market analysis
- Learn why socially responsible and environmentally sustainable urban development is a big challenge in the US and around the world
- Learn challenges and opportunities in international housing and real estate markets

Course Materials

There is no textbook for this course. I will post detailed PowerPoint lecture notes and video recordings for each lecture on the course website.

One of the homework assignments is to write an essay based on chapter 2, "Why Do Cities Decline?" of *Triumph of the City*

- Edward Glaeser, *Triumph of the City*. ISBN: 978-0-14-312054-4 (Required. Available at Amazon.com, paperback $17.10, Kindle $4.99 ($0.99 after Kindle App credits))

I also recommend the following books for those who are interested in getting a little more depth on the material seen in class.

- John McDonald & Daniel McMillen, *Urban Economics and Real Estate: Theory and Policy*, 2nd ed. ISBN: 978-0-470-59148-2 (Recommended but not required)
- Arthur O'Sullivan, *Urban Economics*, 9th ed. ISBN: 978-0-078-02178-7 (Recommended but not required)

For selected modules, students need to download relevant cases (with a fee) from Harvard Business Cases Store (https://hbsp.harvard.edu/import/794719)

- Back to School: Real Estate Development of Off-Campus Student Housing (Required) $4.25
- Singapore -City in a Garden: A Vision for Environmental Sustainability (Required) $4.25

Course Website

All class material will be available on the Canvas website (https://canvas.wisc.edu/courses/230236). I will also put a PDF copy of the lecture note on the Canvas website after each class. Students are expected to be familiar with the functioning of this website. Every student must update their information and upload a picture as soon as possible.

Main Topics and Group Projects

1. Introduction to Urban Economics

- The demand and supply for housing and urban space
- The elasticity of supply and demand for housing and land
- The dynamics and durable housing
- Agglomeration economies and congestion externalities
- Household and firm location choices: the Rosen-Roback model

2. Housing Market and Policy

- Determinants of housing and land prices: the Kain and Quigley model
- House price measurement: hedonic and repeated-sales house price indexes
- Housing data analysis and Excel modeling
- Housing investment, speculation, and bubbles

3. Commercial Real Estate Investment Decision and Market Analysis

- The four-quadrant (4Q) model of real estate markets
- Commercial real estate data analysis: CoStar data analysis
- Commercial real estate market analysis
- Case Study: Back to School – Real Estate Development of Off-Campus Student Housing

4. Sustainable Development for Real Estate and Urban Cities

- Introduction to the Sustainable Development Goals
- Guest speakers on topics of sustainable development
- Case study: Singapore – City in a Garden: A Vision for Environmental Sustainability

5. International Real Estate Market

- Guest speaker on the outlook of the global real estate markets
- Evaluating the risk of Chinese housing markets: what we know and what we need to know
- The public housing in Singapore: the housing and development board (HDB)

SESSION SCHEDULE

Note: The topics and dates for the class may change throughout the semester – please refer to the course calendar on Canvas for the most up-to-date timeline and materials.

No.	Date	Topics
1	01.25.2021	Introduction
2	01.27.2021	The elasticity of demand and supply for housing and urban space
3	02.01.2021	Agglomeration economies & supply and demand
4	02.03.2021	"Why Do Cities Decline?" Chapter 2 of *Triumph of the City* by Edward Glaeser
5	02.08.2021	Households and firms location choices: The Rosen-Roback model
6	02.10.2021	Determinants of housing and land prices: The Kain and Quigley model
7	02.15.2021	Housing data analysis and Excel modeling
8	02.17.2021	House price measurement (I): average and median house price index
9	02.22.2021	House price measurement (II): hedonic house price index
10	02.24.2021	House price measurement (II): hedonic house price index
11	03.01.2021	House price measurement (III): repeated-sales house price index
12	03.03.2021	Introducing CoStar commercial real estate database Guest speaker: Brian Hiemer, Senior Executive, CoStar Group
13	03.08.2021	Housing investment, speculation, and bubbles
14	03.10.2021	Introducing DiPasquale and Wheaton's four-quadrant (4Q) model of real estate markets
15	03.15.2021	The course group project planning Miterm review and introducing Honorlock online proctoring exam
16	03.17.2021	Midterm (remote exam using Honorlock)

17	03.22.2021	Guest lecture on the Sustainable Development Goals (SDG) • Guest speaker: Lori DiPrete Brown, Director and Distinguished Faculty Associate, School of Human Ecology, UW-Madison. TED Talk Speaker (2015).
18	03.24.2021	Guest lecture on the pandemic and its effects on cities, housing and real markets • Guest speaker: Professor Emeritus, Steve Malpezzi, UW-Madison, Graaskamp Center for Real Estate. Dean of the Weimer School of the Homer Hoyt Institute.
19	03.29.2021	Guest lecture on green building projects in Milwaukee • Guest speaker: Christopher Adams, Chief Technical Officer, Principal, Dominion Properties
20	03.31.2021	Guest lecture on city of Madison sustainable development plan • Guest speaker: Farshad Maltes, Director of Economic Development, Wisconsin Housing and Economic Development Authority (WHEDA)
21	04.05.2021	Introduction to commercial real estate market analysis Case Study: Back to School – Real Estate Development of Off-Campus Student Housing
22	04.07.2021	Guest lecture on the outlook of the global real estate markets • Guest speaker: Jacques Gordon, Global Strategist, LaSalle Investment Management
23	04.12.2021	Case study: Singapore - City in a Garden: A Vision for Environmental Sustainability
24	04.14.2021	Evaluating the risk of Chinese housing markets: what we know and what we need to know
25	04.19.2021	Prepare for group project report and presentation
26	04.21.2021	Student group project presentation (I)
27	04.26.2021	Student group project presentation (II)
28	04.28.2021	Student group project presentation (III)
	04.30.2021	Group project PPT and final reports due
	05.07.2021	Final Exam (remote exam using Honorlock) 10:05 am – 12:05 pm

Group Project

Students will be formed into small groups (of four to five students) during the second half of the semester to work on a group project. The group project will focus on sustainable development in the commercial or residential real estate industry or urban city development. There will be lectures, guest speakers, reading materials, online video materials, and case studies, helping students to get familiar with the issues.

For students to develop their leadership, communication, and skills, this course requires students to write a group project report on sustainable development in commercial or residential real estate industry or urban city development and present their main findings in front of their classmates.

Group Project Report: I will sort students into small groups and expect them to produce a report of seven to ten pages. The final draft style is **New Times Roman, 12 points font size, and double space (align text to both left and right margins!)**. The head of the draft should contain: a) Title of the paper, and b) Name of students in the group.

The group project report should also include a 100-word or less abstract that is readable by the layperson. The abstract should be understandable and independent of the rest of the paper. It should describe the data and methodology used and highlight the key results.

Tables and figures should number consecutively and label clearly. Symbols and abbreviations in the tables and figures should be defined clearly. Each table and figure should include an explanatory paragraph that should fully explain the table or figure so that the reader does not need to refer to the text.

Citation of other works in the text should include both author and date, for example, Cox (2000). A reference page should be placed at the end of the article under the heading Reference. The conforming format of the reference examples are:

- **Book**: Merrill, S. R. *Hedonic Indices as a Measure of Housing Quality*. Abt Associates: Cambridge, MA, (1980).
- **Journal article**: Rea, L. M., and D. K. Gupta, 1982. The Rent Control Controversy: A Consideration of the California Experience. *Glendale Law Review*, 4, 47-58.
- **Article in a book edited by another**: Walker, M. A. An Income Supplement Program, in *Rent Control: A Popular Paradox*, ed. By M. A. Walker. The Fraser Institute: Cambridge, MA, (1975).

Presentation: In the presentation, the students have to briefly summarize their main findings, explain what they have learned and found most interesting, and formulate one question to their classmates. This question will be part of the material that all students must study for the final exam. The person/group that presents a paper is responsible for answering all questions from their classmates not only during their presentation, but also at any time during the semester.

The first and final drafts of the group project report and presentation must be posted on our course website before the corresponding deadlines (announced in class). Failure to follow any of these rules will result in a loss of at least 30 points.

The grades of the group project report and presentation will also reflect the classmate evaluations and group peer evaluations. A student who is in class but does not submit their *classmate evaluation form* (or submits the evaluation but is incomplete) will suffer a penalty that will affect their participation grade. In the case that you present the paper with other students, you must also submit your *group peer evaluation form* no later than the day of your presentation. Otherwise, you will suffer a penalty.

STRUCTURE OF MIDTERM AND FINAL EXAMS

There will be questions about the research papers presented in classes and long and short/multiple-choice questions about the material seen in classes in the exams. For the long questions, a good answer must have the following four elements: 1) Assumptions (and model if it is relevant); 2) Economic intuition; 3) Numerical example or intuitive figures; 4) Supports of theoretical arguments with empirical facts. This type of exam will help students in their future professional careers by giving them some experience on how to write reports by summarizing the main economic ideas and facts. This type of exam (and the preparation for the exam) will also improve students' writing skills. Many employers tell the faculty that writing skills are an essential consideration in their hiring decisions.

This semester, we will conduct digital midterm and final exams remotely, and Honorlock will proctor your exams. Failure to use the proctoring service assigned will result in zero on exams.

Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software, or schedule an appointment in advance. Honorlock is available 24/7, and all that is required is a computer, a working webcam/microphone, your ID, and a stable internet connection.

To get started, you will need Google Chrome and download the Honorlock Chrome Extension.

When you are ready to complete your assessment, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session through your webcam, microphone, and recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact them through live chat on the support page or within the exam itself. Some guides you should review are Honorlock MSRs, Student FAQ, Honorlock Knowledge Base, and How to Use Honorlock.

Honorlock Pre-Exam Checklist for Students

- Review Honorlock's minimum system requirements and make sure your system meets them.
- Install Google Chrome, if not already installed on your computer; then install the Honorlock Google Chrome extension.
- Complete a network speed test.
- Complete any software updates and restart your computer if needed.
- Review where to get support if you run into issues during your exam.
- Have your UW-Madison ID or government ID handy (inform your instructor before your exam if you do not have an English ID).

- Take the exam in a well-lit room. Avoid backlighting, such as sitting with your back to a window.
- Remove all hats, hoods and sunglasses.
- Ensure you're in a location where you won't be interrupted. If you are unexpectedly interrupted, reach out to your instructor after your exam and inform them of what happened.
- Turn off all other devices (tablets, phones, smart watches) and place outside of your reach.
- Clear your desk or workspace of all external materials not permitted for use during the exam – e.g., books, papers, other devices.
- Ensure your computer or device is on a firm surface (a desk or table). Your computer should not be on your lap, a bed, or other surface where the device is likely to move.
- For built-in webcam, avoid readjusting the screen after the webcam setup is complete and you have tested that your face is in the exam window on the left side of the screen.
- Make sure your laptop is fully charged before you begin your exam.
- Make sure you review any extra instructions about the exam from your instructor.

Campus Spaces for Virtual Learning & Testing

Dedicated on-campus spaces with high-speed internet are available for students to reserve for any exam/quiz taken during the semester. Computers can also be requested.

Class Attendance and Participation

Class attendance is mandatory.

In addition to the lectures, there will be student presentations and discussions. I expect all students to attend every virtual class at the scheduled time. If you cannot participate in some virtual classes, you should write to the instructor in advance for approval.

I also expect students to be actively engaged in learning throughout the course and to be proactive in seeking any assistance that may be necessary. This means that students should take full advantage of office hours, class discussions, and other activities throughout the course. The student should also participate in class, with questions during the lectures, debates, and other students' presentations. To encourage active participation, I will give 5 points (out of 100) to those outstanding students that actively participate in class.

Grading

I will grade students using a scale of 0-100. Conversion of final grading to letter grades will follow the School of Business' guidelines: "For all [...] undergraduate courses with class numbers below 600 and 15 or more students enrolled, the mean grade should be no higher than 3.3, and the maximum percentage of A's is 30%."

The final grade is computed using the following weights:

- 5% active participation

- 15% assignments
- 15% midterm
- 30% final exam
- 35% group project on sustainable development, of which:
  - 10% presentation (classmates' evaluation)
  - 20% quality of the group project report
  - 5% jury and group peers' evaluation

Web Resources

There are a few separate websites that you'll want to know if you're taking real estate courses.

1. The Library's Electronic Reserves Page. This site is only accessible from your UW student account at DOIT (http://my.wisc.edu). Go to your "Academics" page for a connection to library resources for your registered courses. This is where you'll find many of the course readings, downloadable in Adobe Acrobat's PDF format.
2. The Real Estate Department's home page (http://www.bus.wisc.edu/realestate) contains basic information about the program, links to data sources, etc.
3. The UW Writing Center (http://www.wisc.edu/writing). The Writing Center, on the 6th floor of Helen C. White Hall, offers free short courses to help you improve your writing skills. Many employers tell the faculty that writing skills are an important consideration in their hiring decisions, and a writing course can help you with your writing. Stop by the Center or check out their web site.
4. The UW-Madison Real Estate Club (http://www.realestateclub.org). I advise all of you to consider joining the club seriously. Or, go to a meeting and see what it is all about. I think early exposure to your colleagues (junior and senior) and potential business partners is potentially an enormous benefit to your future career and enjoyment of real estate study and practice.

Students' Rules, Rights & Responsibilities

During the global COVID-19 pandemic, we must prioritize our collective health and safety to keep ourselves, our campus, and our community safe. As a university community, we must work together to prevent the spread of the virus and to promote the collective health and welfare of our campus and surrounding community.

UW-Madison Badger Pledge

Campus Guidance on the use of Face Coverings

Face coverings must be correctly worn on campus at all times and in all places (both outside and inside), except by students in their assigned residence hall rooms; by employees when alone in a private, unshared lab or office; when traveling alone in a private vehicle; and when exercising outside in a way that maintains 6 feet of distance from other people.

Students with disabilities or medical conditions who are unable to wear a face covering should contact the McBurney Disability Resource Center or their Access Consultant if they are already affiliated. Students requesting an accommodation unrelated to disability or medical condition, should contact the Dean of Students Office.

Students who choose not to wear a face covering may not attend in-person classes, unless they are approved for an accommodation or exemption. All other students not wearing a face covering will be asked to put one on or leave the classroom. Students who refuse to wear face coverings appropriately or adhere to other stated requirements will be reported to the Office of Student Conduct and Community Standards and will not be allowed to return to the classroom until they agree to comply with the face covering policy. An instructor may cancel or suspend a course in-person meeting if a person is in the classroom without an approved face covering in position over their nose and mouth and refuses to immediately comply.

Quarantine or Isolation Due to COVID-19

Student should continually monitor themselves for COVID-19 symptoms and get tested for the virus if they have symptoms or have been in close contact with someone with COVID-19. Student should reach out to instructors as soon as possible if they become ill or need to isolate or quarantine, in order to make alternate plans for how to proceed with the course. Students are strongly encouraged to communicate with their Instructor concerning their illness and the anticipated extent of their absence from the course (either in-person or remote). The instructor will work with the student to provide alternative ways to complete the course work.

Diversity & Inclusion Statement

Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

Academic Integrity Statement

By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary action include, but is not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Lecture Materials and Recordings

Lecture materials and recordings for RE420/RE720, Urban and Regional Economics, are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or share lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

Accommodations for Students with Disabilities Statement

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. (See: McBurney Disability Resource Center)