RE420: URBAN AND REGIONAL ECONOMICS

(Real Estate/Economics/Urban and Regional Planning)
RE420 Lectures 002 and 003, Fall 2021
Course Canvas website (https://canvas.wisc.edu/courses/259810)
Final Exam 12/20/2021 5:05 pm – 7:05 pm, (INGRAHAM 19)

GENERAL INFORMATION

Instructor: Professor Yongheng Deng

Lectures: RE420 (002): 3335 Grainger Hall, M, W 4:00 pm – 5:15 pm
RE420 (003): 3335 Grainger Hall, M, W 5:30 pm – 6:45 pm
Office hours: 4110 Grainger Hall, M, W 3:30 pm – 4:00 pm, 6:45 pm – 7:15 pm, or by appointment
Email: yongheng.deng@wisc.edu

TA: Yuwen Ji
TA office hours: 2167 Grainger Hall, Tuesday 4:00-6:00 pm, or by appointment
TA Email: ji53@wisc.edu

COURSE CREDITS

This is a 3-credit course. This class meets for two 75-minute class periods each week over the semester. It carries the expectation that students will work on course learning activities (reading, writing, homework assignments, group meetings, etc.) for about 3 hours out of the classroom for every class period.

COURSE PREREQUISITE

Required: Econ 101 or 111.

Recommended: RE 306.

COURSE DESIGNATIONS AND ATTRIBUTES

Course Designation: Breadth - Social Science; Level - Advanced; LS Credit - Counts as Liberal Arts and Science credit in LS.

INSTRUCTIONAL MODALITY

In-person.

Course Description

Economics is the study of the allocation of scarce resources. Urban and regional economics focuses on the allocation of resources across space. This course uses economic methods to analyze urban real estate. Topics covered include the determinants of real estate values, the location decisions of households and firms, land use, urban growth and agglomeration, real estate pricing, cycles, development, housing market and policies, and sustainable development.

Course Overview

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 housing affordability and wealth inequality. Digital technological innovation and big data analytics are 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 globally. In addition, 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 to 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.

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.

Learning Outcomes

- Students will understand the relevance of economic analysis to real estate decisions.
- Students will understand why cities exist and what drives urban growth.
- Students will be able to explain how business and residential location decisions are made and how these decisions impact housing prices, land use, labor market, and many other aspects of cities.
- Students will learn how real estate developers approach their decisions.
- Students will understand cycles, risks, and bubbles in residential and commercial real estate markets.
- Students will learn why socially responsible and environmentally sustainable urban development is a big challenge in the US and around the world.
- Students will work on a project that applies urban and regional economics to real estate decisions and policy analysis.

Readings and Materials

There is no textbook for this course. Instead, I will post detailed PowerPoint lecture notes and video recordings for each lecture on the Canvas course website (https://canvas.wisc.edu/courses/259810).

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 $17.99, Kindle $8.99 (Free with Kindle App))

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

- Arthur O'Sullivan, *Urban Economics*, 9th ed. ISBN: 978-0-078-02178-7 (Recommended but not required)
- John McDonald & Daniel McMillen, *Urban Economics and Real Estate: Theory and Policy*, 2nd ed. ISBN: 978-0-470-59148-2 (Recommended but not required)
- Peter Linneman & Bruce Kirsch, *Real Estate Finance and Investments: Risks and Opportunities*, 5.1 ed. ISBN: 978-1-7923-3191-6 (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/851661)

- 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

Main Topics and Group Projects

- The housing market and policies
  - Housing supply and demand
  - Housing market policies
- Land use and urban spatial structure
  - Land market fundamentals
  - Households and firms location choices: The Rosen-Roback model
- Agglomeration and the growth of cities
  - Agglomeration & industry Clustering
  - Agglomeration & city growth
- Real estate pricing
  - Real estate valuation and applications
  - Hedonic and repeated-sales price indices
- Real estate cycles
  - The four-quadrant (4Q) model of real estate markets
  - Housing investment, speculation, and bubbles
- Commercial real estate market analysis
  - Commercial real estate market analysis
  - Case Study: Back to School – Real Estate Development of Off-Campus Student Housing
- Topics on sustainable development goals
  - The United Nations' 17 Sustainable Development Goals (SDGs)
  - Sustainable urban, city, and neighborhood development: the case of Madison
  - Affordable housing
- Topics on international real estate markets
  - The outlook of the global real estate markets
  - Evaluating the risk of Chinese housing markets
  - Case study: Singapore - City in a Garden

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	09.08.2021	Introduction
2	09.13.2021	The elasticity of demand and supply for housing and urban space
3	09.15.2021	Agglomeration economies & supply and demand
4	09.20.2021	In-class debate: The Future of Detroit "Why Do Cities Decline?" Chapter 2 of *Triumph of the City* by Edward Glaeser
5	09.22.2021	Households and firms location choices: The Rosen-Roback model
6	09.27.2021	Determinants of housing and land prices: The Kain and Quigley model
7	09.29.2021	Housing data analysis and Excel modeling
8	10.04.2021	House price measurement (I): average and median house price index
9	10.06.2021	House price measurement (II): hedonic house price index
10	10.11.2021	House price measurement (III): repeated-sales house price index
11	10.13.2021 (5120 Grainger)	Introducing CoStar commercial real estate database • Guest speaker: Brian Hiemer, Senior Executive, CoStar Group
12	10.18.2021	Introduction to sustainable development and UN 17 SDGs.
13	10.20.2021 (5120 Grainger) 4:30 – 6:00 pm	Guest lecture on the Sustainable Development Goals (SDGs) • Guest speaker: Lori DiPrete Brown, Director and Distinguished Faculty Associate, School of Human Ecology, UW-Madison. TED Talk Speaker (2015).
14	10.25.2021	Housing Options and Futures – an application of the HPI derivatives
15	10.27.2021	Housing investment, speculation, and bubbles
16	11.01.2021	Introducing DiPasquale and Wheaton's four-quadrant (4Q) model of real estate markets
17	11.03.2021	Midterm

18	11.08.2021 (1295 Grainger) 4:30 – 6:00 pm	Guest lecture on the city of Madison's results on the SGDs and sustainable development strategies for the city of Madison • Guest speaker: Karalyn (Kara) Kratowicz, UniverCity Alliance, Performance Excellence Specialist, City of Madison • Guest speaker: Jessica Price, Sustainability & Resilience Manager, Mayor's Office, City of Madison
19	11.10.2021 (5120 Grainger) 4:30 – 6:00 pm	Guest lecture on the affordable housing plan in Wisconsin and the green sustainable building projects in Milwaukee • Guest speaker: Christopher Adams, Chief Technical Officer, Principal, Dominion Properties • Guest speaker: Farshad Maltes, Director of Strategic Business Development, Wisconsin Housing and Economic Development Authority (WHEDA)
20	11.15.2021 (via Zoom) 4:30 – 6:00 pm	Guest lecture on the outlook of the global real estate markets 2022-2023 • Guest speaker: Jacques Gordon, Global Strategist, LaSalle Investment Management
21	11.17.2021 (via Zoom) 4:30 – 6:00 pm	Guest lecture on the pandemic and its effects on cities, housing, and real estate markets • Guest speaker: Professor Emeritus, Steve Malpezzi, UW-Madison, Graaskamp Center for Real Estate. Dean of the Weimer School of the Homer Hoyt Institute.
22	11.22.2021	Introduction to commercial real estate market analysis
23	11.24.2021	Case Study: Back to School – Real Estate Development of Off-Campus Student Housing
24	11.29.2021	• 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)
25	12.01.2021	Student group project presentation (I)
26	12.06.2021	Student group project presentation (II)
27	12.08.2021	Student group project presentation (III)
28	12.13.2021	Final Review
29	12.15.2021 4:30 – 6:00 pm	Student group projects poster session East Atrium, Grainger Hall
30	12.20.2021	Final Exam 5:05 pm – 7:05 pm (Ingraham 19, 1155 Observatory Dr.)

GROUP PROJECT

Students will be formed into small groups (of four to six 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 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 title page of the draft should contain: a) Title of the paper, and b) Name and email address 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: During 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.

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.

Structure of Midterm and Final Exams

There will be multiple-choice questions and long questions about the materials covered 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 graphics; 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.

Grading

The grade will be determined based on your participation, homework, term project, and exams. I will grade students using a scale of 0-100. Conversion of the final grade to letter grades will follow the School of Business's guidelines: \For all [...] undergraduate courses with the class number 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%." 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% 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 (https://business.wisc.edu/faculty-research/real-estate/) contains basic information about the program, links to data sources, etc.
3. The UW Writing Center (https://writing.wisc.edu/). 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 website.
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.

The Mask Mandate

We expect everyone on campus – students, faculty, staff, and visitors – to follow the reasonable and research-based measures we have in place to protect our community. Those who can wear a face covering but refuse to do so will be asked to leave the building. Any absence from class due to refusal to wear a mask will be treated by the instructor as an unexcused absence, with consequences as indicated on individual class syllabi. Students who repeatedly fail to comply will be referred to the Office of Student Conduct and Community Standards and may be subject to disciplinary action under the non-academic misconduct policy. Students who have a medical condition or disability that affects their ability to wear a face-covering should obtain an accommodation.

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 that may result in disciplinary action. Examples of disciplinary action include, but are 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)