







Econ 414: Urban Economics

University of Illinois at Urbana-Champaign
College of Liberal Arts & Sciences
Department of Economics

Spring 2021

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 Office Hours: T-TH 2:30-3:30 p.m.

 [Econ 414 Website](#)
 Class: T-TH 12:30-1:50
 Web Room: Zoom Link

Course Description

This course will introduce you to core issues and recent advances in urban economics. The first part develops canonical models of urban economics to explain spatial regularities within and across cities, and presents the market forces that cause cities to grow. Then, topics such as housing, neighborhood effects, congestion, local government, segregation, violence, and disease are analyzed. Along with classes, lab sessions expose you to practical tools in data science such as data cleaning, visualization, and mapping with the use of programming language. By the end of the semester, the student will have a good understanding of the economic approach to cities and will be comfortable using R.

Materials

Required Reading

You must be willing to spend time reading and thinking about the material. Lecture notes, journal articles, and R codes will be posted on the course webpage.

Additional Reading

There is no required textbook. However, the classes will be based on some chapters of the following books, book chapters and papers whose reading is recommended.

Brueckner, J. K. (2011). *Lectures on urban economics*. MIT Press.

Glaeser, E. (2011). *Triumph of the City*. Penguin Books.

Moretti, E. (2012). *The new geography of jobs*. Houghton Mifflin Harcourt.

O'Sullivan, A. (2007). *Urban economics*. McGraw-Hill/Irwin Boston, MA.

Sampson, R. J. (2012). *Great American city: Chicago and the enduring neighborhood effect*. University of Chicago Press.

Required Materials

Students must have access to a computer where they are able to install the most up-to-date versions of R and RStudio. Previous knowledge with programming language is helpful but not required.

Piazza

Piazza is used heavily to give you an opportunity to ask questions about course content. Special consideration will be given to students at the end of the semester for providing consistent high quality responses to their classmates - this is particularly true for those interested in Extra Credit.

Find our class signup link at: piazza.com/illinois/spring2021/econ414

Prerequisites

Students must have completed a course on intermediate microeconomics (Econ 302) and regression analysis (Econ 203). Introduction to applied econometrics (Econ 471) is recommended but not required.

Evaluation

Grade determination

Grades will be determined as follows:

Task	Weight
Homework (5 assignments)	40%
Midterm Exam	20%
Lab Quiz	20%
Final Group Project	20%
Attendance, extra assignments and Piazza	Up to 5% (Extra Credit)

Homework

Homework should be completed and submitted online through Moodle. **Late assignments will receive a daily penalty of 5%**, and you can submit your late assignment up to 3 days after the original deadline. After that, assignments will receive no credit. You are required to submit two files: .rmd and .pdf. Points might be taken due to lack of organization in your report (no more than 5%).

Students are encouraged to work together on homework. **However, sharing, copying, or providing any part of a homework solution or code is an infraction of the University's rules on Academic Integrity.** Any violation will be punished as severely as possible.

Midterm Exam and Lab Quiz

The Midterm Exam and the Lab Quiz are open book, but any interaction between students during the exam is considered as an infraction of the University's rules on Academic Integrity. Any violation will be punished as severely as possible. The exams must be done during regular class time through Moodle.

Final Project

There will be a Final Group Project. Details TBA.

Conflict and Missed Exams

Students must present a letter from the Dean Office justifying their absence, otherwise, they will get zero on the missed exam. In the event that a student misses the Midterm Exam, its weight will be redistributed to the other tasks. **There are no make-up exams.**

The following cutoffs will be used for the letter grades:

A	B	C	D	F
A+ = 97% - 100%	B+ = 87% - 89.99%	C+ = 77% - 79.99%	D+ = 67% - 69.99%	F = <59.99%
A = 93% - 96.99%	B = 83% - 86.99%	C = 73% - 76.99%	D = 63% - 66.99%	
A- = 90% - 92.99%	B- = 80% - 82.99%	C- = 70% - 72.99%	D- = 60% - 62.99%	

Predicted Outline

Class readings are subject to change, contingent on mitigating circumstances and the progress we make as a class. **Students are encouraged to attend all lectures and check the course website for updates.**

Week 01, 01/26 - 01/28: Syllabus Day and Intro to R & Stylized Facts of Cities

- Intro to Econ 414 - Urban Economics
- Using Rmarkdown
- Urban regularities

Week 02, 02/02 - 02/04: Market Forces in the Development of Cities & dataviz with R

- Why do cities exist?
- Why do firms cluster?
- Data cleaning and visualization with Tidyverse

Readings: Moretti (2012) ch. 4, O'Sullivan (2007) ch. 2 and 3

Week 03, 02/09 - 02/11: Monocentric City Model I

- The Alonso-Muth-Mills Model

Reading: Brueckner (2011) ch. 2

Week 04, 02/16 - 02/18: Monocentric City Model II & Sprawl and Zoning

- The Alonso-Muth-Mills Model: Extensions
- Urban sprawl and land-use controls
- **Homework 1 due 02/15**

Readings: Brueckner (2011) ch. 3 and 4

Week 05, 02/23 - 02/25: Urban Growth and Decline & The Great Divergence

- Why do cities decline?
- How do cities succeed?
- The Great Divergence

Readings: Glaeser (2011) ch. 2 & 9, Moretti (2012) ch. 3

Week 06, 03/02 - 03/04: Spatial Equilibrium Across Cities & Mapping data

- Rosen-Roback Model
- Mapping data with tmap and Leaflet
- **Homework 2 due 03/01**

Week 07, 03/09 - 03/11: Midterm Week

- **Midterm Exam 03/11**

Week 08, 03/16 - 03/18: Urban Transportation

- Urban transit, traffic allocations
- Congestion Pricing
- **Homework 3 due 03/15**

Readings: Brueckner (2011) ch. 5

Week 09, 03/23 - 03/25: Housing & Housing Policies

- Hedonic Model & Tenure Choice
- Housing Policies & Affordable Housing

Readings: Brueckner (2011) ch. 6 and 7

Week 10, 03/30 - 04/01: Local Government

- The Tiebout Model
- **Homework 4 due 03/29**

Reading: Brueckner (2011) ch. 8

Week 11, 04/06 - 04/08: Lab Quiz Week

- **Lab Quiz 04/08**

Week 12, 04/13 - 04/15: Neighborhood Choice

- **April 13 Break**
- Segregation trends
- Tipping model of neighborhoods
- Rise and fall of american ghetto

- Consequences of segregation

Readings: O’Sullivan (2007) ch. 8, Glaeser (2011) ch. 3

Week 13, 04/20 - 04/22: Neighborhood Effects

- “[...] near things are more related than distant things”
- Moving to Opportunity Experiment

Readings: Lecture notes based on Sampson (2012)

Week 14, 04/27 - 04/29: Exploratory Spatial Data Analysis (ESDA)

- Modelling Proximity with spatial weight matrices
- Spatial autocorrelation, Moran’s I and LISA map
- Spatial analysis using R
- **Homework 5 due 04/26**

Week 15, 05/04 - 05/06: Violence & Disease

- The criminology of place
- 1854 Broad Street cholera outbreak
- COVID-19 Spatial Distribution
- Final Group Project Discussion
- **May 6 Reading day**

Week 16, 05/11 - 05/13: Final Project Week

- **Final Group Project due 05/14**

Academic Assistance

Students are encouraged to utilize the many resources we have throughout campus to assist with academics. We recommend that you seek them out starting early in the semester, not just in times of academic need, in order to develop good study habits and submit work which represents your full academic potential.

Many resources may be located on the Economics Website, including information about the Economics Tutoring Center and other tutoring centers: economics.illinois.edu/academics/academic-student-support/academic-resources

Academic Integrity

According to the Student Code, “It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions”. Please know that it is my responsibility as an instructor to uphold the academic integrity policy of the University.

Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policies. Ignorance is not an excuse for any academic dishonesty. It is

your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity. Read the full Student Code at the following URL: studentcode.illinois.edu/

Students with Disabilities

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TTY), e-mail (disability@illinois.edu) or visit www.disability.illinois.edu.

Emergency Response Recommendations

Emergency response recommendations can be found [here](#). I encourage you to review this website and the campus building floor plans website within the first 10 days of class police.illinois.edu.

Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See registrar.illinois.edu/ferpa for more information on FERPA. Student information and records will not be released to anyone other than the student, unless the student has provided written approval or as required by law. More information may be found here: studentcode.illinois.edu.

Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX and Disability Office. In turn, an individual with the Title IX and Disability Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options.

A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: www.wecare.illinois.edu/resources/students/#confidential. Other information about resources and reporting is available here: wecare.illinois.edu.

Student Support

The Counseling Center: counselingcenter.illinois.edu The Counseling Center is committed to providing a range of services intended to help students develop improved coping skills in order to address emotional, interpersonal, and academic concerns. Please visit their website to find valuable resources and services.

Counseling Center contact: 217-333-3704

Location: Room 206, Student Services Building 610 East John Street, Champaign, IL

Appointment: Scheduled for same day, recommend calling at 7:50 a.m.

McKinley Mental Health: mckinley.illinois.edu/medical-services/mental-health The Mental Health Clinic at McKinley provides evaluations, consultations, and recommendations for subsequent treatment for a variety of emotional and behavioral difficulties. Short-term individual psychotherapy and medication treatments are provided when indicated. McKinley's staff of mental health professionals includes licensed psychiatrists, psychologists, a clinical nurse specialist and clinical social workers.

McKinley Mental Health contact: 217-333-2701

Location: 3rd Floor McKinley Health Center 1109 South Lincoln, Urbana, IL

Hours: 8:00 am - 5:00 pm, Monday through Friday. Appointment: Scheduled in advance.

Emergency Dean: odos.illinois.edu/community-of-care/emergency-dean. The Emergency Dean may be reached at (217) 333-0050 and supports students who are experiencing an emergency situation after 5:00 pm, in which an immediate University response is needed and which cannot wait until the next business day. The Emergency Dean is not a substitute for trained emergency personnel such as 911, Police or Fire. If you are experiencing a life-threatening emergency, call 911. For emergencies that occur during business hours (Monday-Friday, 8:30 am-5:00 pm), students should call the Student Assistance Center at (217) 333-0050.

Academic Dates and Deadlines

Students should make note of important academic dates for making changes to their courses (add, drop, credit/no-credit, grade replacement, etc.). registrar.illinois.edu/academic-calendars Please check with your academic department regarding specific procedures and policies.