

Syllabus for Graduate Urban Economics, Course #213119 (updated 1/3/2025)

- Class Location, Time, Contact Info: 四教, room 106, Tuesdays, 18:00-20:35; nschiff@gmail.com
- Office Hours: Tuesdays, 13:20-15:00, room 505 (BY APPOINTMENT: *please email me first*)
- Text: no textbook, all lectures and readings: <https://nathanschiff.com/graduate-urban-economics-spring-2024>

Course Description: We focus on canonical theories of urban economics and recent empirical evidence.

- **Topics:** We start by considering land use and residential location in a single city and the role of transportation costs. We then study an individual's location choice across cities and neighborhood choice within cities. We move on to examining reasons for the existence of cities, focusing on the geographic concentration of industry and why concentration can lead to higher productivity. We follow this with measurement of the geographic concentration of industries and explore empirical methods for working with spatial data. Next, we consider ideas from Trade in explaining the spatial distribution of economic activity (New Economic Geography) and read recent empirical papers based on these ideas. If time permits, we will study Quantitative Spatial Models, a recent innovation in modeling general equilibrium spatial patterns. We then study additional topics on location choice, including the role of consumer amenities, place-based policies, and identification strategies. We finish with an introduction to housing economics and the Chinese housing market. Throughout, we will examine empirical evidence for urban economics theory, often focusing on evidence from China.
- **Focus on China:** China is undergoing a period of massive urbanization and is the country with the largest number of cities with a population above 1 million. Many of the classical topics in urban economics, such as the tradeoff between agglomeration economies and congestion externalities, are particularly important in China. Further, specific characteristics of Chinese institutions and policies, such as the hukou (户口) system, make some aspects of its urban development differ from those of North America and Europe. This makes China a great subject for urban economic research.

Course Objectives: An important overall objective of this course is to help prepare students for research and therefore there will be an emphasis on developing each student's own research idea (see evaluation). After completing this course the student will have an understanding of how economic theory guides research on cities and how current researchers approach empirical urban economics questions, including some of the specific issues and methods of working with spatial data.

Course Prerequisites: This course will cover both applied theory and empirical applications and should be suitable for any PhD students and advanced masters students. The urban economics theory models we cover are straightforward and simpler than material discussed in a first year microeconomic theory PhD class. The empirical papers we discuss will use a range of techniques to deal with endogeneity, such as instrumental variables or regression discontinuity design. Having familiarity with some of these techniques could be helpful, but is not a requirement, and I will also quickly review these methods in class.

Course Assessment (tentative): Research Proposal (40%), Midterm Research Outline (25%), Referee Reports, Student Presentations, and Homework (25%), Class Attendance and Participation (10%)

- **Research Proposal and Midterm Outline:** Since this course aims to encourage student research, students are required to hand in a well-developed research proposal, complete with a literature review and preliminary analysis, at the end of the class. Topics should be related to subjects covered in this course but do not have to be exclusively urban economics questions; for example, Labor Economics students can propose research projects on labor topics that utilize spatial data or deal with cross-city issues. In the middle of the semester students must submit an outline of their research idea; I will grade this as the midterm and provide feedback and suggestions.
- **Homework:** There will be a mock referee report on recent Job Market Papers in Spatial/Urban Economics, problem set(s) on theory or estimation topics, and a brief presentation of a paper related to the class.

Nathan Schiff (史一飞), Spring 2025

| Date | Week | Lecture | Topic | Reading | Additional References |
|-----------|------|---------|--|---|---|
| 2/25/2025 | 1 | 1 | Introduction; Urbanization | Chauvin, Juan Pablo, Glaeser, Edward, Ma, Yueran, and Tobio, Kristina, "What is Different about Urbanization in Rich and Poor Countries? Cities in Brazil, China, India, and the United States." <i>Journal of Urban Economics</i> , 2016 | 1) J. Vernon Henderson, "Urbanization in China: Policy Issues and Options," Recommendation to China Economic Research and Advisory Program, 2009 2) Dingel, Jonathan I., Miscio, Antonio, Davis, Donald R., "Cities, Lights, and Skills in Developing Economies," <i>Journal of Urban Economics</i> , 2020 |
| 3/4/2025 | 2 | 2 | Monocentric City Model | Brueckner, Jan K., "The Structure of Urban Equilibria: A Unified Treatment of the Muth-Mills Model", Ch. 20, <i>Handbook of Regional Science and Urban Economics</i> , Vol 2, 1987 | 1) Duranton, Gilles and Puga, Diego, "Urban Land Use", <i>Handbook of Regional Science and Urban Economics</i> , Vol 5, 2015 2) Chapters 2 and 3 of Fujita, Masahisa, "Urban Economic Theory: Land Use and City Size," Cambridge University Press, 1989. |
| 3/11/2025 | 3 | 3 | Monocentric City Model and Transportation Mode | Jerch, Rhiannon, Barwick, Panle Jia, Li, Shanjun, and Wu, Jing, "Road Rationing Policies and Housing Markets," <i>Journal of Urban Economics</i> , 2024 | LeRoy, Stephen F. and Sonstelie, Jon, "Paradise Lost and Regained: Transportation Innovation, Income, and Residential Location", <i>Journal of Urban Economics</i> , 1983 |
| 3/18/2025 | 4 | 4 | Transportation and Decentralization in China | Baum-Snow, Brandt, Henderson, Turner, Zhang. "Roads, Railroads and Decentralization of Chinese Cities," <i>Review of Economics and Statistics</i> , 2017 | |
| 3/25/2025 | 5 | 5 | Equilibrium across Cities | Roback, Jennifer. "Wages, Rents, and the Quality of Life," <i>Journal of Political Economy</i> , 1982. | 1) Moretti, Enrico, "Local Labor Markets," Chapter 14, <i>Handbook of Labor Economics</i> , Volume 4b, 2010. 2) Glaeser, Edward, and Gottlieb, Joshua, "The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States," <i>Journal of Economic Literature</i> , 2009 |
| 4/1/2025 | 6 | 6 | Place-based Policies | Kline, Patrick and Moretti, Enrico, "People, Places and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs," <i>Annual Review of Economics</i> , 2014 | Neumark, David and Simpson, Helen, "Place-Based Policies," <i>Handbook of Regional and Urban Economics</i> , 2015 |
| 4/8/2025 | 7 | 7 | Sorting within Cities | Bayer, Patrick, Ferreira, Fernando, and McMillan, Robert. "A Unified Framework for Measuring Preferences for Schools and Neighborhoods," <i>Journal of Political Economy</i> , 2007 | Bayer, Patrick, McMillan, Robert, and Rueben, Kim. "An Equilibrium Model of Sorting in an Urban Housing Market," NBER WP 10865 |
| 4/15/2025 | 8 | 8 | Neighborhoods and Neighborhood Effects | Topa, Giorgio and Zenou, Yves, "Neighborhood and Network Effects," <i>Handbook of Regional and Urban Economics</i> , 2015 | 1) Chetty, Raj and Hendren, Nathaniel, "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects," <i>Quarterly Journal of Economics</i> , 2018 2) Dai, Tianran and Schiff, Nathan, "The Structure and Growth of Ethnic Neighborhoods", <i>Journal of Urban Economics</i> . 2023 |
| 4/22/2025 | 9 | 9 | Microfoundations of Agglomeration and Existence of Cities | Duranton, Gilles and Puga, Diego, "The Micro-Foundations of Urban Agglomeration Economies," <i>Handbook of Regional and Urban Economics</i> , Vol 4, 2004 | 1) Au, Chun-Chung and Henderson, J. Vernon, "Are Chinese Cities Too Small?", <i>Review of Economic Studies</i> , 2006 2) Au, Chun-Chung and Henderson, J. Vernon, "How migration restrictions limit agglomeration and productivity in China", <i>Journal of Development Economics</i> , 2006 |
| 4/29/2025 | 10 | 10 | Spatial Methods in QGIS and R | Lecture notes and class exercise | |
| 5/6/2025 | 11 | 11 | New Economic Geography | Neary, J. Peter, "Of Hype and Hyperbolas: Introducing the New Economic Geography," <i>Journal of Economic Literature</i> , 2001 | 1) Krugman, Paul, "Scale Economies, Product Differentiation, and the Pattern of Trade," <i>American Economic Review</i> , 1980 2) Krugman, Paul, "Increasing Returns and Economic Geography," <i>Journal of Political Economy</i> , 1991 |
| 5/13/2025 | 12 | 12 | New Economic Geography Models and an Application to China | Faber, Ben. "Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System," <i>Review of Economic Studies</i> . | Baum-Snow, Nathaniel, Henderson, J. Vernon, Turner, Matthew, Zhang, Qinghua, and Brandt, Loren, "Does Investment in National Highways Help or Hurt Hinterland City Growth?" <i>Journal of Urban Economics</i> , 2020. |
| 5/20/2025 | 13 | 13 | Quantitative Spatial Economics | Redding, Stephen J. and Rossi-Hansberg, "Quantitative Spatial Economics," <i>Annual Review of Economics</i> , 2017. | Ahlfeldt, Gabriel, Redding, Stephen, Sturm, Daniel, and Wolf, Nikolaus, "The Economics of Density: Evidence from the Berlin Wall," <i>Econometrica</i> , 2015 |
| 5/27/2025 | 14 | 14 | Shift-share Instruments and the "China Shock" | Goldsmith-Pinkham, Paul, and Sorkin, Isaac, and Swift, Henry, "Bartik Instruments: What, When, Why, and How," <i>American Economic Review</i> , 2020 | 1) Borusyak, Kirill, Hull, Peter, and Jaravel, Xavier, "Quasi-Experimental Shift-Share Research Designs," <i>Review of Economic Studies</i> , 2022. 2) Autor, David H., Dorn, David, and Hanson, Gordon H., "The China Syndrome: Local Labor Market Effects of Import Competition in the United States," <i>American Economic Review</i> . 2013. |
| 6/3/2025 | 15 | 15 | Introduction to Housing Economics and the Chinese Housing Market | Glaeser, Edward, Huang, Wei, Ma, Yueran, and Shleifer, Andrei, "A Real Estate Boom with Chinese Characteristics," <i>Journal of Economic Perspectives</i> , 2017. | 1) Wu, Jing, Gyourko, Joseph, Deng, Yongheng, "Evaluating the risk of Chinese housing markets: What we know and what we need to know," <i>China Economic Review</i> , 2016 2) Wu, Jing, Gyourko, Joseph, Deng, Yongheng, "Evaluating conditions in major Chinese housing markets," <i>Regional Science and Urban Economics</i> , 2012 |
| 6/10/2025 | 16 | | Student presentations; Course conclusion | | |