

Syllabus for Graduate Urban Economics, Course #213119 (updated 2/19/2022)

Course Info:

- Class Location, Time, Contact Info: 四教, room 304, Wednesdays, 13:20-16:10; nschiff@gmail.com
- Office Hours: Tuesdays, 13:30-15:30, room 505 (you may always email me for a separate appointment)
- Text: no textbook, lectures and readings on my webpage: <https://nathanschiff.com> ([course page](#))

Course Description: In this course we focus on canonical theories of urban economics and recent empirical evidence in support of these theories.

- **Topics:** We start by considering land use and residential location in a single city and the role of transportation costs. Next we study an individual's location choice across cities and neighborhood choice within cities. We then examine 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. We then study additional topics on location choice, including the role of consumer amenities, place-based policies, and identification strategies. We finish the course with an introduction to housing economics and the Chinese housing market. Throughout the course we will look at empirical evidence for the theories we read, alternating theory classes with empirical classes and 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

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must submit an outline of their research idea; I will grade this as the midterm and provide feedback and suggestions.

- **Homework:** There will be two mock referee reports 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

Tentative Schedule by Week (16 weeks)

Date	Week	Topic	Reading 1	Reading 2
2/23/2022	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	Optional: J. Vernon Henderson, "Urbanization in China: Policy Issues and Options," Recommendation to China Economic Research and Advisory Program, 2009
3/2/2022	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	Optional reference: Duranton, Gilles and Puga, Diego, "Urban Land Use", <i>Handbook of Regional Science and Urban Economics</i> , Vol 5, 2015
3/9/2022	3	Monocentric City Model and Transportation Mode	Jerch, Rhiannon, Barwick, Panle Jia, Li, Shanjun, and Wu, Jing, "Road Rationing Policies and Housing Markets," Working Paper, 2021	LeRoy, Stephen F. and Sonstelie, Jon, "Paradise Lost and Regained: Transportation Innovation, Income, and Residential Location", <i>Journal of Urban Economics</i> , 1983
3/16/2022	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	
3/23/2022	5	Equilibrium across Cities	Roback, Jennifer. "Wages, Rents, and the Quality of Life," JPE 1982.	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
3/30/2022	6	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," <i>NBER WP</i> 10865
4/6/2022	7	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	Au, Chun-Chung and Henderson, J. Vernon, "Are Chinese Cities Too Small?," <i>Review of Economic Studies</i> , 2006
4/13/2022	8	Agglomeration and Firm Concentration	Ellison, Glenn and Glaeser, Edward, "Geographic Concentration in U.S. Manufacturing Industries: A Dartboard Approach," <i>Journal of Political Economy</i> , 1997	Guimaraes, Paulo, Figueiredo, Octavio, and Woodward, Douglas, "Measuring the Localization of Economic Activity: A Parametric Approach." <i>Journal of Regional Science</i> , 2007.
4/20/2022	9	Spatial Methods in R	Lecture notes and class exercise	
4/27/2022	10	New Economic Geography	Krugman, Paul, "Increasing Returns and Economic Geography," <i>Journal of Political Economy</i> , 1991	Krugman, Paul, "Scale Economies, Product Differentiation, and the Pattern of Trade," <i>American Economic Review</i> , 1980
5/4/2022	11	Agglomeration and Increasing Returns: Evidence from China	Faber, Ben. "Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System," <i>Review of Economic Studies</i> .	Optional: Baum-Snow, Henderson, Turner, Zhang, Brandt, "Does Investment in National Highways Help or Hurt Hinterland City Growth?" WP 2017
5/11/2022	12	Tentative : 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	
5/18/2022	13	Bartik Shocks	Goldsmith-Pinkham, Paul, and Sorkin, Isaac, and Swift, Henry, "Bartik Instruments: What, When, Why, and How," <i>American Economic Review</i> , 2020	
5/25/2022	14	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.	Optional: 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
6/1/2022	15	Website-based Datasets in Economics Research	1) Cosman, Jacob, Dai, Tianran, and Schiff, Nathan, "Delivery in the City: Differentiated Products Competition among New York Restaurants", WP 2021 2) lecture notes, class exercise on web-scraping in Python	
6/8/2022	16	Student presentations; TBD		