

## Syllabus for Graduate Urban Economics (updated 4/17/2017)

### Course Info:

- Class Location, Time, Contact Info: 四教, room 208, Mondays, 13:20-16:10; [nschiff@gmail.com](mailto:nschiff@gmail.com)
- Office Hours: Thursdays 11:00-12:00, room 304 (or by appointment)
- Teaching Assistant: 胡春龙 (Húchūnlóng), [617885918@qq.com](mailto:617885918@qq.com)
- Text: no textbook, lectures and readings on my webpage: <https://nathanschiff.com>

**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 location choice in a single city and then study an individual's location choice across cities. Next we study reasons for the existence of cities, focusing on geographic concentration of industry and why concentration can lead to higher productivity. We then turn to systems of cities, looking at specialization of cities by industry, measurement of geographic concentration of industries, and the startling empirical regularity of the city size distribution known as Zipf's Law. We finish the course by looking at recent empirical work studying sorting within cities and empirical methods for working with spatial data. 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 salient 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 fruitful subject for urban economic research.

**Course Objectives:** An important overall objective of this course is to help prepare students for research in urban economics or related fields. Therefore, 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 and therefore students should be familiar with the most common identification strategies, such as instrumental variables or regression discontinuity design.

**Course Assessment (tentative):** Research Project (40%), Midterm Exam or Midterm Assignment (25%), Homework (25%), Class Attendance and Participation (10%)

- **Research Project:** 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

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preliminary analysis. 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.

- **Homework:** Problem sets will cover theory topics and may include referee reports.

### Tentative Schedule by Week (16 weeks)

Date	Week	Topic	Reading 1	Reading 2
2/20/2017	1	Introduction; 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	<i>Optional</i> reference: Duranton, Gilles and Puga, Diego, "Urban Land Use", <i>Handbook of Regional Science and Urban Economics</i> , Vol 5, 2015
2/27/2017	2	Monocentric City Model continued	LeRoy, Stephen F. and Sonstelie, Jon, "Paradise Lost and Regained: Transportation Innovation, Income, and Residential Location", <i>Journal of Urban Economics</i> , 1983	
3/6/2017	3	Empirical work on Monocentric City and Land Use	Baum-Snow, Brandt, Henderson, Turner, Zhang. "Roads, Railroads and Decentralization of Chinese Cities," <i>Review of Economics and Statistics</i> , forthcoming	<i>Optional</i> reference: Redding, Stephen J. and Turner, Matthew A., "Transportation Costs and the Spatial Organization of Economic Activity", <i>Handbook of Regional Science and Urban Economics</i> , Vol 5, 2015
3/13/2017	4	Equilibrium across Cities	Roback, Jennifer. "Wages, Rents, and the Quality of Life," <i>JPE</i> 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 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
3/20/2017	5	Urbanization in China	J. Vernon Henderson, "Urbanization in China: Policy Issues and Options," <i>Recommendation to China Economic Research and Advisory Program</i> , 2009	
3/27/2017	6	New Economic Geography	Krugman, Paul, "Scale Economies, Product Differentiation, and the Pattern of Trade," <i>American Economic Review</i> , 1980	Krugman, Paul, "Increasing Returns and Economic Geography," <i>Journal of Political Economy</i> , 1991
4/1/2017	7	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> .	
4/10/2017	8	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	
4/17/2017	9	Systems of Cities: Evidence from China	Au, Chun-Chung and Henderson, J. Vernon, "Are Chinese Cities Too Small?", <i>Review of Economic Studies</i> , 2006	Section 5.5 of handbook article: Duranton, Gilles, and Puga, Diego, "The Growth of Cities," <i>Handbook of Economic Growth</i> , Volume 2B, 2014
4/24/2017	10	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	
5/1/2017	11	劳动节, no class		
5/8/2017	12	Sorting within Cities	Bayer, McMillan, Rueben, "An Equilibrium Model of Sorting in an Urban Housing Market," NBER WP 10865	
5/15/2017	13	Consumer Cities	Handbury, Jessie and Couture, Victor, "Urban Revival in America, 2000 to 2010", <i>WP</i> 2016	<i>Optional</i> : 1) Glaeser, Edward, Kolko, Jed, and Saiz, Albert, "Consumer City", <i>Journal of Economic Geography</i> , 2001 2) Schiff, Nathan, "Cities and Product Variety: Evidence from Restaurants," <i>Journal of Economic Geography</i> , 2015
5/22/2017	14	Website-based Datasets in Economics Research	1) Cosman, Jacob and Schiff, Nathan, "Welcome! We Have a New Menu: Measuring Product Responses to Competition", <i>WP</i> 2017 2) lecture notes, class exercise on web-scraping in Python	
5/29/2017	15	Spatial Methods in R	<i>Lecture notes and class exercise</i>	
6/5/2017	16	TBA	<i>Tentative</i> : student presentations	