

**UNIVERSITY OF GEORGIA
DEPARTMENT OF ECONOMICS**

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ECONOMICS 5990
ECONOMICS TUTORIAL

SUMMER 2013
Independent

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NATURE OF SYLLABUS: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

COURSE DESCRIPTION: From the University Catalog – Reading and independent research on a specified topic beyond normal course offerings and supervised by a faculty member.

COURSE OBJECTIVES: This economics tutorial course will consider topics within the realm of spatial economics. Students will have the opportunity to use the incorporate geography, maps, and spatial analysis into an economics class; students will apply the principles of the class to analyze a spatial problem with policy implications. In the process, the student will learn to use ArcGIS mapping software to study a data driven problem.

SOFTWARE: ArcGIS is a mapping software program that allows you to visualize data on maps. I have obtained free student licenses of ArcGIS 10.1 for you that can be installed on your personal computer. Use of the software is required and cannot be substituted by other mapping software.

TEXTBOOKS AND READINGS: The text for the class is *Mastering ArcGIS* (sixth edition, McGraw-Hill, 2012) by Merideth Price. If you elect to purchase an older edition of the book, you may notice some incompatibilities with the version of the software. This sixth edition of the textbook corresponds to the software (v. 10.1) given to you. The fifth edition of the textbook corresponds to ArcGIS 10.0. Under no circumstances should you buy the fourth edition of the textbook as it corresponds to an outdated version of GIS. In addition to the textbook, there are a series of short articles discussing spatial economics that form the reading list below.

Other GIS Resources:

Agrawal, D. 2006. "Using ArcGIS for Regional Data Analysis." on my website under data.

GRADES: Grades for the class will be assigned based on the following information. Each of the components are described below. To assign a final grade, I will use a standard 90-100, 80-90, etc. scale.

Requirement	% of Final Grade
GIS Exercises	15%
Readings	25%
Project	60%

GIS EXERCISES: Using the Price textbook, you should independently complete the tutorials of the following chapters. The tutorials will teach you how to use the software. After completing the tutorials, complete the end of chapter "Exercises." Be sure you complete the end of chapter exercises and not the review questions. When requested, capture an image of the map you create. You may do this by saving the map as an image file in ArcGIS or by taking a screen shot. You should turn in (electronically) a type written answer key to these end of chapter exercises. All exercises are due by August 2. If not received by then, they will be scored as a zero. In the table below, I suggest the date you complete the exercise by in order to make good progress in the course. Because the text contains the answers, you should be sure to provide more details, explanations and maps to show you have completed the work on your own. The assigned chapters are given below along with the date that I suggest that you complete it by (though you may wish to complete things earlier):

Day	Exercises
5/20	Chapter 1: GIS Data
5/24	Chapter 2: Mapping GIS Data (Important)
5/29	Chapter 3: Presenting GIS Data
6/3	Chapter 4: Attribute Data
6/7	Chapter 6: Spatial Joins
6/12	Chapter 9: Network Analysis (Important)
6/17	Chapter 10: Geocoding

EXTRA CREDIT: If you want to add additional points to your final score in order to improve your grade you may do extra credit. Extra credit involves completing the end of chapter exercises for any of the unassigned chapters. The unassigned chapters are less relevant to economics. For each unassigned chapter that you additionally complete, you will earn 2 points toward your final score. Note: There is no limit on the maximum number of points you may earn, but I reserve the right to use my discretion to set a maximum if your other work is lower quality as a result.

READINGS: Given that this is a three credit class, we will have some readings on spatial economics. Listed below are approximately 20 journal articles. You should read the articles below in the order they appear on this syllabus. To provide some proof of completing the readings, you should keep some notes of your thoughts and reflections on the article. This is not meant to be a simple summary. At the end of the term you should turn in your notes on each article. I suggest listing the title of the article followed by about five bullet points of comments. You do not need to write in prose format, but your bullet points must be clear and well written. Examples of bullet points that you may make include, but are not limited to: things in the article that got your attention, things that you found surprising, possible critiques of the articles, a question that the article stimulated in your mind, a possible extension or follow up article that you would like to see, etc. The articles do not require ArcGIS knowledge so you may complete this simultaneously with the above exercises.

PROJECT: You must propose and complete an individual project that requires you to use ArcGIS to analyze a spatial concept. I suggest that you propose the project to me by *June 21*. You will have an easier time thinking of a project if you have completed all the exercises and readings prior to proposing a topic (they will help you understand how you can use ArcGIS and creative ways to introduce space into economics). The project should be similar in the effort to a senior thesis, which is a one credit class (as the previous two credits for this class are allocated to the readings and learning of GIS.) The project will, however, form a disproportionately large part of your grade given that it will build on the first two thirds of the class. You must propose a topic that you want to analyze geo-spatially (I would suggest a topic relating to urban economics or public economics that is distinct from any previous work you have completed for me. My preference is that the topic be one relating to municipal governments or taxes, as these are the issues which I will be able to help you with the most easily, but your topic need not be in this area. The project should result in a paper like a senior thesis that is approximately 15 pages long (not including the maps needed). The paper should have a clear thesis, a hypothesis, an integrated literature review and bibliography, and must convey evidence regarding your ability to work with data in a spatial context.

ACADEMIC HONESTY: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor. Cases of cheating on exams or papers will result in a final grade of F being assigned for the course and the incident will be reported to university officials.

SCHEDULE: The following list indicates various deadlines and expectations. While you may turn in everything on the last day possible (8/2), I'll also set some benchmarks for your progress in the course.

READINGS: The following list indicates the required readings. You will want to download them to your computer before leaving campus as you will not be able to gain free access to them unless on campus.

Introduction to space:

Ross, M. and E. Homer. 1976. "Galton's Problem in Cross-National Research." *World Politics* 29(1):1-28.

Franzese, R. and Hays, J. 2008. "Interdependence in Comparative Politics: Substance, Theory, Empirics, Substance", *Comparative Political Studies* 41(4/5): 742-80.

Introduction to Spatial Public Finance and Urban Economics:

Brueckner, J. 2003. "Strategic Interaction Among Governments: An Overview of Empirical Studies." *International Regional Science Review* 26(2): 175-188.

Revelli, F. 2006. Spatial interactions among governments in: G. Brosio, E. Ahmad (Eds.) *Handbook of Fiscal Federalism*, Edward Elgar, pp. 106-130 or at this link.

Revelli, F. forthcoming. Geografiscal federalism in: G. Brosio, E. Ahmad (Eds.) *Handbook of Fiscal Federalism*, second edition, Edward Elgar, or at this link.

Revelli, F. 2005. "On spatial public finance empirics," *International Tax and Public Finance* vol. 12, pp. 475-492.

Examples of Geography in Public Finance:

Lovenheim, M. 2008. "How Far to the Border?: The Extent and Impact of Cross-Border Casual Cigarette Smuggling." *National Tax Journal*, March.

Lovenheim, M. and J. Slemrod. 2010. "The Fatal Toll of Driving to Drink: The Effect of Minimum Legal Drinking Age Evasion on Traffic Fatalities". *Journal of Health Economics*, January 2010, vol. 29, no. 1: 62-77.

Lovenheim, M. and M. Harding and E. Leibtag. 2012. "The Heterogeneous Geographic and Socioeconomic Incidence of Cigarette Taxes: Evidence from Nielsen Homescan Data", *American Economic Journal: Economic Policy*, Fall, vol. 4, no. 4: 169-198.

Merriman, D. 2010. "The Micro-geography of Tax Avoidance: Evidence from Littered Cigarette Packs in Chicago," *American Economic Journal: Economic Policy*, 2(2): 61-84.

Agrawal, D. 2012. "The Tax Gradient: Do Local Sales Taxes Reduce Tax Differentials at State Borders?," on my website.

Agrawal, D. 2012. "Inter-federation Competition: Sales Tax Externalities with Multiple Federations," on my website.

Examples of Geography in Urban Economics:

Anas, A., R. Arnott, and K. Small. 1998. "Urban Spatial Structure." *Journal of Economic Literature*, Vol. 36, No. 3 (Sep., 1998), pp. 1426-1464.

Black, D. and V. Henderson. 2003. "Urban evolution in the USA". In: *Journal of Economic Geography* 3, pp. 343-372.

Hanson, A. and S. Rohlin. 2011. "Do Location-Based Tax Incentives Attract New Business Establishments?" *Journal of Regional Science* 51: 427-449.

Hanson, A. and S. Rohlin. 2013. "Do Spatially Targeted Redevelopment Programs Spillover?" *Regional Science and Urban Economics* 43 2013: issue 1, 86-100.

Holmes, T. 1998. "The Effect of State Policies on the Location of Manufacturing: Evidence from State Borders," *Journal of Political Economy*, Vol. 106, No. 4 (August 1998), pp. 667-705.

Kim, S. and R. Margo. 2003. "Historical Perspectives on US Economic Geography," *Handbook of Regional and Urban Economics*, Volume 4, edited by Vernon Henderson and Jacques-Francois Thisse.

Examples of Maps:

Agrawal, D. 2006. "New England Migration Trends," Federal Reserve Bank of Boston Discussion Paper 06-1. on my website.