

Fall 2016
DUKE UNIVERSITY
Department of Economics

Economics 345/554: URBAN ECONOMICS

<http://sites.duke.edu/urbaneconomics/>

Professors: Charles Becker Victor Yifan Ye
Office: 312 Social Sciences
Telephone: 919-660-1885
Email: cbecker@duke.edu
Office Hours: by appointment

Class: Monday-Wednesday 10:05– 11:20 AM Gray 228
Teaching Assistant (and Blog Czar):

1. **Course description.** This course will analyze issues of spatial economics, including why cities are formed, patterns of residential and business location, models of housing market segregation, business location, and urban population "explosions" in developing countries. The course begins with an overview of the monocentric city model, explaining patterns of population density, commuting, and housing values. This course will emphasize **real estate and financial aspects of the housing market**. A second major theme of this course will be the **economy of Durham**, and the underlying residential and commercial patterns. Becker's current research interests center on the **economics of trailer parks** and **real estate and suburbanization in transition economies**, so you'll learn more about those topics than in a conventional course. And you'll get an intro to spatial modeling and likely become acquainted with ARCGIS.
2. **Prerequisites:** Econ 201. Introductory econometrics (Econ 208) will be extremely useful. Working knowledge of differential and integral calculus, econometrics, and Excel is necessary.
3. **Text.** There is one required text. Voluminous class notes will be posted on Sakai. These are intended to be supplemental, and are neither a perfect substitute for class nor the readings.
 - John F. McDonald and Daniel P. McMillen. 2010. *Urban Economics & Real Estate*. Ed. 2. Malden, MA: Blackwell. (required)

We also expect you to buy and read on your own:

- Michael Lewis. 2010. *The Big Short*. New York: Norton.
- John F. McDonald. 2014. *Postwar Urban America: Demography, Economics, and Social Policies*. Routledge

Worth downloading:

- <https://modu.ssri.duke.edu/chapters> -- background in causal inference and regression analysis
- Gary Burtless and Janet Rothenberg Pack, Eds. 2002-2009. *Brookings-Wharton Papers on Urban Affairs*. Washington, DC: Brookings (BWPUA 2005). <http://muse.jhu.edu/journals/urb/>
- Bruce Katz and Robert Lang, Eds. 2003. *Redefining Urban and Suburban America: Evidence from Census 2000, Vol. 1*. Washington, DC: Brookings.
- J. Vernon Henderson, 2004 *North-Holland Handbook of Urban and Regional Economics, Vol. 4*. The papers can be downloaded from <http://www.econ.brown.edu/faculty/henderson/handbook.html>.
- <http://www.brookings.edu/about/programs/metro/research> lots of interesting papers from Brookings' Metropolitan Policy Program

4. **Duke Embedded Writer Project:** Econ 345/554 will be participating in the embedded writer project this fall. It should be useful, both from the standpoint of improved writing and improved content. Two students who have training from the writing studio will be attached to the course.
5. **Course home page and blog:** One of the best ways to learn is from each other, which can be stimulated by setting up an open home page <http://sites.duke.edu/urbaneconomics/> on which you can quasi blog by submitting **edited** assignments. Duke Readers can respond (thereby helping larger numbers of students, as many will have similar issues); so can classmates and – gasp! – members of the community. You will be expected to post (1) your Durham paper; (2) a draft of your term paper – ultimately replaced by the final version, and (3) comments on others’ term paper drafts. The fact that some of your work will be public means that you need to think *very* carefully about the content: I don’t want to scare you, but rather see this as a mechanism to help improve the caliber of your work. However, there will be an editorial process: all postings will be reviewed by the TA/Blog Czar after they are submitted and prior to being posted live for the entire world to review.
6. **Honor code and course policies.** Failure to acknowledge assistance on an assignment, or to cite a source of information used in an assignment, or to represent the work of others as your own, violates the University's honor code. Any violations may result in failure of the assignment or the course, or expulsion from the University. Any exam missed for a non-legitimate reason will be accorded the grade of 0. Any exam missed for a legitimate reason will be made up with an oral exam as soon as EcoTeach can schedule it.

Late work will be penalized by 1/3 grade point per day late (excluding Sundays).

Assignments must be submitted via Sakai. An electronic and a hard copy of the term paper must be submitted to the instructor.

Standard formatting for regular text material shall be as follows: 1-inch margins top/bottom/left/right; 1.5 line spacing; extra space between paragraphs; Garamond 12 font; right hand justification for main text. References and footnotes should be single space (with space between individual citations) and Garamond 11 font. Assignments and term papers that have not gone through a basic spell and grammar check will not be accepted. **Revisions of papers receiving failing (F) or low (C or D) grades will not be accepted, regardless of whether the reason for the grade concerns content, writing quality, or failure to proofread.** Files attached with viruses will be deleted and not regarded as submitted; if for some reason the virus gets through and infects one of my computers, you will receive a grade of 0 for the assignment.

7. **Grading and assignments.** The grades will be determined as weighted averages of exam and homework performances:

Durham overview	10%	September 6
In-class presentations on readings & blog comments	15[c1]%	
Durham paper	25%	October 13
Term paper first draft (submitted to embedded writers as well)	5%	November 7
Research project/term paper	30%	December 9
Final presentation or examination ¹	15%	December 16 (2-5 PM)

Subject to approval by the instructor or TA, you may elect to write a single term paper in place of the Durham paper and term paper. Such a paper would be expected to be of substantially higher quality and to involve original research. To earn a grade above a B it will have to be submitted to and conditionally accepted by the *Duke Journal of Economics* or an acceptable substitute. Preliminary

¹ The final exam is mandatory for students with a course GPA below 2.90. Other students may give a presentation of their term paper or Durham paper in lieu of the final, in which case the final presentation will count for 10% of the total grade.

drafts are due October 13 and November 7.

Presentations: each week, we will expect you to read assigned chapters from the text and required books, and also at least one paper from a set of options for the week. We further expect you to be prepared to answer questions on the text or books, and to have a brief presentation on the additional paper. Be prepared to talk for 2-4 minutes on assigned readings and 4-7 minutes on the paper. **We will use a random number generator to make cold calls.**

The **term paper** is expected to be 15-20 pages in length plus tables, on a topic of the student's choice, but subject to instructor approval. The paper is expected to involve [a] original empirical or theoretical research (required of students in Econ 554), or [b] a comprehensive survey a topic, and provide policy analysis in light of recent data and research. However, we strongly encourage all students to undertake original empirical work, regardless of whether or not it makes use of sophisticated statistical techniques. It is also worth noting that many papers from this course have been published in the *Duke Journal of Economics*, and other students have built on their term paper to write a senior thesis.

The **final examination** will be comprehensive, but will have a Durham focus.

6. **Focus: Durham – initial assignment and final exam.** One of the purposes of this course is to give you a much deeper understanding of the community in which you are at least temporarily living; I also want to remove the abstractness of the course topic. To tie it in, your first and last assignments (the last being the final exam) will focus on Durham.

Your first assignment is simple, but time consuming: we want you to visit 11 sites in Durham and observe. For each one, write up notes (a paragraph on each except for one, which should be a bit more in depth – say 2-3 paragraphs) on what strikes you about the street, neighborhood or commercial area (one block in all directions of the point identified). When you observe, do so as an economist – think about how well lawns are maintained, the value of vehicles relative to structures, the density of the area, the degree of homogeneity ... and what these might imply. We encourage you to add or attach photographs. We also expect you to traverse the entire area.

This assignment should only be a total of 3-6 pages, but it will be time consuming, because you have to travel all over Durham. How you do it is part of the assignment. If you don't have a car or bicycle, you can rent a bike over at Durham Cycles on 9th Street. You should choose 11 of the 34 sites listed below, but be aware that credit will be given for diversity of selection.

The locations are:

1. S. Alston Ave, from Riddle to Lawson + E. Lawson from Roxboro to Briggs
2. E. Pettigrew, from Roxboro to Ellis
3. Junction Rd., from Holloway to Geer
4. The neighborhood bordered by Roxboro, Geer, Elizabeth, and Holloway
5. Maple from E Main to Liberty; then Spruce from Liberty to Juniper
6. Woodcroft Parkway, from Hope Valley to Carpenter Fletcher
7. Beverly Drive, connecting via bike ramp and continuing on to Fargo St.
8. Guess Rd. from Sedgefield to Duke Homestead Rd. to Carver
9. Old State Highway 10 from route 70/Hillsborough Rd to Murphy School Road; then Murphy School to Cornwallis then Cornwallis to Kerley
10. Geer St., from Morris to Cheek
11. Cole Mill Rd. and Stoneybrook
12. St. Theresa's: Enterprise, Hillside Ave., Chestnut, and South streets (north of Erie) – they're all short.
13. Fayetteville and NC 54 (three blocks in all directions)
14. Hayti area (you define your route)

15. Roxboro, from I-85 to Old Oxford Rd.
16. Stoneybrook Drive, from Cole Mill Rd. to Carver
17. Old NC 10/Old Hillsboro Rd. from route 70 to Mount Hermon Church Rd.
18. Cheek Rd., from Geer to Falls Lake
19. Dowd St., continuing on to Broadway St.
20. Bivins St (entirety)
21. E. Main, from Roxboro to Guthrie
22. Cleveland-Holloway neighborhood (you define your route)
23. NC Central University and surrounding area
24. Weaver St., from Cornwallis to Theresa
25. American Tobacco Trail (not campus: you need to go up and down the trail)
26. Bahama Rd.
27. S. Miami, from East End to Cornwallis
28. Rte. 751 from I-40 to Fayetteville
29. Parkwood neighborhood
30. Old North Durham neighborhood
31. Rolling Hills/Southside neighborhood
32. Curtis, Elmira, Medina, and Canal Street neighborhood
33. Pickett Rd., from Perry to Erwin
34. Washington St., from West Corporation to Club, along with key adjacent side streets, notably Macon (but note that Macon is a place where you should be careful).

Notes:

- You should be able to do this in half a day.
- We recommend going in daylight.
- We recommend going with one other person and discussing what you see.
- If driving, do not park in a bad neighborhood and take notes. This makes you look like an inexperienced undercover police officer.
- International students *must* pair with an American student.
- We can tell if you do this via Google maps.
- Photos are useful: We don't want dozens from each site, but one or two used to illustrate key points would be fine.
- Be prepared to discuss (and post best pictures).

The final exam also will focus on some of the communities listed above. We will prepare some specific questions in advance, and allow you to come to the final with a notebook on these locations. The exam will ask you to apply specific theoretical models to explain the patterns you observe, and also will have you compare these patterns to empirical findings from other cities.

7. **Focus: Durham – paper.** This is a moderate length paper of 7 to 10 pages (plus tables and references) in which you are to address a spatial feature or policy issue related to Durham, subject to my approval. Ideally, the paper will involve data analysis and address an issue of policy interest; it will also include a discussion of past patterns or policy decisions. Recent topics range from analyses of the determinants of commercial property prices/rental rates to determinants of housing values in Durham and Orange Counties to analysis of trends in racial segregation to analysis of patterns of new housing starts and residential density to an analysis of the determinants of city (or country) economic growth across the Carolinas.
8. **Visiting speakers and class conduct.** In addition to learning about Durham and the Triangle region, we will have several visiting speakers. On days with visitors, you will be responsible for getting material not covered in class from my on-line lecture notes. **In general, we expect to lecture on formal models or when rapidly surveying a literature.**

9. **Course outline:** As we come to each topic, I will give an updated list of required and optional readings. The McDonald and McMillen text is the core, and you should read it. You are also responsible for everything covered in the notes. If that material is technical, we will cover it in class, and not expect you to cover much else. If it is not terribly technical from the standpoint of theoretical difficulty, we will expect you to read one or more of the optional readings, and be prepared to discuss it in class. **We also expect your papers, blog contributions, and classroom remarks to reflect the readings (including *The Big Short*).**

Monday August 29	Introductory Lecture: Why do cities exist?
Wednesday August 31	Stylized facts and patterns II: central place theory
Wednesday September 2	Assignment 1 (Durham overview) due²
Monday September 5	Land rent and urban structure
Wednesday September 7	Land use in the monocentric and modern cities
Monday September 12	Agglomeration and other economies
Wednesday September 14	Land use controls, zoning, and the Tiebout model
Monday September 19	Household sorting, search costs, and segregation
Wednesday September 21	More models
Monday September 26	Real Estate Law, Institutions, and Markets (demand and supply)
Wednesday September 28	Mobile homes
Thursday October 13	Assignment 2 (Durham research paper or policy analysis) due
Monday October 3	Real estate asset valuation, development, and investment
Wednesday October 5	
Monday October 10	fall break
Monday October 17	Sub-prime mortgages and other financial issues
Monday October 24	Sub-prime mortgage crisis II: macro effects and consequences
Monday October 31	Housing booms and busts
Wednesday November 2	Local governments, property rights, and local economic development
Monday November 7	International real estate topics
Monday November 7	Term paper first draft due
Wednesday November 9	Property rights in developing countries and other local government issues
Monday November 14	Autos, highways, and congestion
Wednesday November 16	Mass Transit
Monday November 21	Business location and the core model of spatial economics
Wednesday November 23	City and business location II: economic development strategies
Monday November 28	Urban growth in BRICS and developing countries
Wednesday November 30	Labor markets and migration in developing countries
Monday December 5	presentations
Wednesday December 7	presentations
Friday December 9	Term paper final version due
Friday December 15	Final Exam 2:00 – 5:00 PM

Likely visitors: Adam Dickinson, Brittany Kielhurn, Greg Hills, Nancy Cox, John Burness, Mitchel Gorecki, Adam Dickinson, Kevin Davis

² All assignments are due at 11:59 pm.