

URBAN ECONOMICS: ECONOMICS OF CITIES (ECON 4242)  
Department of Economics, University of Colorado  
Fall 2017

Classtime: M, W, F: 10:00 - 10:50 am                      Room: HLMS 267  
Professor: Charles de Bartolome                      Office: ECON 203  
Office hours: Mon 3:30 - 4:30 pm; Tu 10:15-11:15 am;    e-mail: debartol@colorado.edu  
                 Fri 1:50 - 2:50 pm.

*Textbook:* Arthur O'Sullivan: *Urban Economics* (8<sup>th</sup> Edition). McGraw-Hill Irwin.

*Clickers* Each student must buy a *i>clicker*. If you do not already own one, an *i>clicker* may be purchased at the University of Colorado bookstore. Clickers will be used to give class problems which will be scored.

Clickers should be registered at: [myCUinfo.colorado.edu](http://myCUinfo.colorado.edu) .  
Register using your Identity Login not your student ID.

*Course description:*

The U.S. is an urban country, with 80% of the population living in urban areas. This course considers the economic forces which drive households and jobs to congregate in metropolitan areas and thereby create cities. It then considers the forces within the city which determine how the established cities “look” - how rents vary with location, the distribution of jobs and households within a city, urban sprawl, and the sorting of households between neighborhoods. Finally it considers some government policies relating to land use and housing.

*Pre-requisites:*

Intermediate Microeconomics, ECON 3070;  
Introduction to Statistics with Computer Applications, ECON 3818.

*Course Assignments and Desire2Learn:*

All course assignments, problem sets and some lecture notes are posted on the Desire2Learn at: <http://learn.colorado.edu> .

Please note that four pages of each Adobe Acrobat file can be printed on a single sheet by clicking as: Print > Landscape > Multiple > Custom 2 by 2 .

*Attendance at class:*

Woody Allen once remarked: "90% of success is just turning up". The best way to learn the material is to attend class. Reading the lecture notes posted on the web is not a good substitute for attendance. Attendance at class is expected and required.

*Administrative Drop:*

Because attendance is important and is expected, I will drop from the class any student who neither attends two of the first three classes of the term nor gets special permission from me for his/her absence.

*Problem Sets:*

Problem sets with answers are listed under each topic on the syllabus. The problem sets are an integral part of the course. They are designed to help you use the material and a significant part of the exams will closely follow their format.

Although the answers to the problem sets are posted, I encourage you to make a real effort to solve the problem before you check the answer.

There are many questions at the end of each chapter in the textbook. I encourage you to work through the questions which relate to the material covered in class (I will post a list of these questions on Desire2Learn).

*Grading:*

There will be two midterms, a final exam, in-class clicker questions and paper summaries. Your grade will be determined as:

25%	First Midterm
30%	Second Midterm
30%	Final
8%	In-class clicker questions.
7%	Paper summaries

Concerning in-class clicker questions. I will use clicker questions to reinforce the main point of a lecture. Each correct answer will receive 1 point, and an absence or an incorrect answer will receive zero points. In calculating your total score for all in-class clicker questions, I will sum your scores for all days, omitting your three lowest daily scores.

Concerning the paper summaries. One of the objectives of this course is to introduce you to how economic knowledge is created and distributed (research). As a way of doing this, I will present some research papers. You are required to read the paper before I present it and complete a summary sheet which is to be given in before the presentation.

*Exams:*

The two midterms will be given in the evening as:

FIRST MIDTERM:	Monday 25 Sept in TBA	7:00 p.m. - 8:40 p.m.
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SECOND MIDTERM:	Monday 6 Nov in TBA	7:00 p.m. - 9:00 p.m.
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The final exam will be held as:

FINAL:	Saturday 16 Dec in HLMS 267	4:30 p.m. - 7:00 p.m.
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You must bring two blue-books to each exam.

Because this is a 4000-level class, the exams will not just repeat material covered in class. Some questions will follow the material covered in class and in the problem sets, but some will ask you to apply the material in a different environment.

*Failure to be present at an exam:*

If you are unable to take an exam because of illness: You must get a medical note from a doctor to confirm your inability to take the exam *and* advise me of your inability *before* the exam. In this case you may take a make-up. Otherwise, unless you have obtained my prior permission to take the make-up, failure to be present for an exam will cause your score to be 0 for that exam.

*Using Clickers:*

I consider it cheating if a student uses another student's clicker.

You get a green light when your answer is registered. If you get a red light, your clicker is not registering and your score is automatically zero.

*Classroom courtesy:*

Please turn your cell 'phone off prior to the start of class.

I believe that learning is enhanced if there is full concentration by both the instructor and the student. To facilitate this, laptops may only be used in the front two rows of the classroom and usage of laptops in class is restricted to following the course notes.

*Accommodation for Disabilities:*

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to me in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website ([www.colorado.edu/disabilityservices/students](http://www.colorado.edu/disabilityservices/students)). Contact Disability Services at 303-492-8671 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition or injury, see Temporary Medical Conditions under the Students tab on the Disability Services website and discuss your needs with me.

*Religious Holidays:*

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, please let me know in a timely manner if one of the exam dates falls on a religious holiday you intend to observe and I will arrange for you to take a make-up.

*Classroom Behavior:*

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the Student Code of Conduct.

*Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation:*

The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political

affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

*Honor Code:*

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at the Honor Code Office website.

*Course outline:*

A list of topics to be covered and likely dates is shown on the next pages. This is an estimated plan. Topics may take more or less time than estimated in this plan.

## COURSE OUTLINE

<u>Approximate Date</u>	<u>Topic</u>	<u>Chapter</u>
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### 1. INTRODUCTION

28, 30 Aug	<b>INTRODUCTION</b> Fundamental Questions of Urban Economics The need for a model Descriptions of urban areas “Five Axioms of Urban Economics” Discussion of regression analysis - the hedonic regression of house prices	1
*1 Sept	Kain, J., and J. Quigley, (1970), “Measuring the value of housing quality,” <i>Journal of American Statistical Association</i> <u>65</u> , 532-548.	

### 2. FORMATION OF CITIES

6, 8, 11 13 Sept	<b>EXISTENCE OF CITIES</b> The importance of returns to scale - trade cities - factory cities - resource cities  <i>Problem Set: Base Case</i> <i>Problem Set: Trade Cities: Normative</i> <i>Problem Set: Trade Cities</i> <i>Problem Set: Factory Cities 1</i> <i>Problem Set: Factory Cities 2</i> <i>Problem Set: Resource Processing Cities 1</i> <i>Problem Set: Resource Processing Cities 2</i>	2
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### 3. CLUSTERING IN CITIES

15,18,20 Sept	<b>WHY FIRMS CLUSTER</b> Why firms cluster - input sharing -knowledge spillovers	3
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- shared customer base
- labor pooling
- better skill matching

Why households cluster

- joint labor supply
- mentor matching
- social matching

\*22 Sept

Carlton, D.W., (1983), "The location and employment choices of new firms: an econometric model with discrete and continuous endogenous variables," *Review of Economics and Statistics* 65, 440-449.

*Problem Set: Input Sharing*

*Problem Set: Labor Pooling*

*Problem Set: Skill Matching*

*Problem Set: Social Matching*

25 Sept

Review

FIRST MIDTERM (7:00 - 8:40 pm in )

#### 4. METROPOLITAN POPULATION AND JOBS

27, 29 Sept	POPULATION SIZE Jobs Standard of Living Model - Equilibrium City Size Limiting Growth - urban growth boundary - limiting building permits - development fees  <i>Problem Set: Equilibrium City Population</i> <i>Problem Set: Urban Growth Boundary</i>	4          pp. 239-247
2, 4, 6 Oct	URBAN GROWTH Role of human capital Urban growth Employment multiplier	(omit Appendix)
*9 Oct	Helms, L.J., (1985), "The effect of state and local taxes on economic growth: a time-series cross-section approach," <i>Review of Economics and Statistics</i> <u>67</u> , 574-582.  <i>Problem Set: Spreading beneficial effects</i> <i>Problem Set: Metropolitan Development Policy</i>	

#### 5. LAND PRICES AND LAND USE PATTERN

11, 13, 16, 18 Oct	BID-RENT CURVES Capitalization "Left-over principle" - bid-rent for agriculture - bid-rent for manufacturing firms - bid-rent for offices - bid rent for households - bid-rent curves and land-use patterns  <i>Problem Set: Factory Bid-Rent</i>	6 (omit pp. 141-142, 156-160)
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*Problem Set:* Office Travel Costs  
*Problem Set:* Office Bid-Rent With No Production Substitution  
*Problem Set:* Residential Bid-Rent With No Consumption Substitution  
*Problem Set:* Using Bid-Rent Curves

20, 23 Oct BUILDING-UP AND SQUEEZING: pp 141-142, 16-160  
 SKYSCRAPER OFFICES, HIGH-RISE APARTMENTS,  
 TOWNHOUSES AND APARTMENT COMPLEXES  
 Substitution construction  
 Substitution in the consumption of housing

*Problem Set:* Skyscraper Offices: Graphical  
*Problem Set:* Skyscraper Offices: Algebra  
*Problem Set:* Residential Bid-Rent: High Rise Apts. and Townhouses

25, 27 Oct MONOCENTRIC CITY 7  
 Monocentric city (pp. 161-181,  
 “Edge Cities” 193-195, 198-201)

LAND-USE POLICY  
 Policy: land-use zoning 9  
 Open Space (pp. 230-239)  
 Urban sprawl pp. 181-189

*Problem Set:* Zoning Land as “For Agricultural Use Only.”

\*30 Oct Kahn, M., (2000), “The environmental impact of suburbanization,”  
*Journal of Policy Analysis and Management* 19, 569-586

## 6. MAKE-UP OF COMMUNITIES/NEIGHBORHOODS

1, 3 Nov SORTING 8  
 Income sorting also: pp. 195-197  
 Public good/public service sorting  
 Socio-economic sorting

*Problem Set :* Income Sorting  
*Problem Set:* Public Service Sorting

6 Nov	Review SECOND MIDTERM (7:00 - 9:00 pm in TBA )	
8, 10 Nov	ZONING Space externality Fiscal zoning  <i>Problem Set: Min Lot Size Zoning</i>	pp. 232-235
7. HOUSING		
13, 15, 17 27 Nov	WHY IS HOUSING DIFFERENT Durability - deterioration and maintenance Filtering model	14
29 Nov, 1 Dec	HOUSING POLICY Supply side - public housing - subsidies for private housing (Sections 236 and 8) - low-income housing tax credit Demand side - housing vouchers Community development Mortgage deduction  <i>Problem Set: Evaluating a housing program.</i>	15
*4 Dec	Honig, M., and R.K. Filer, (1993), "Causes of intercity variation in homelessness," <i>American Economic Review</i> 83, 248-255	

## 8. MASS TRANSIT

6, 8 Dec	Ridership sensitivity System choice Subsidies	11
*11 Dec	Bollinger, C.R., and K.R. Ihlanfeldt, (1997), “The impact of rapid rail transit on economic development: the case of Atlanta’s MARTA,” <i>Journal of Urban Economics</i> <u>42</u> , 179-204.  <i>Problem Set : Ridership Sensitivity</i>	
13 Dec	Review	
16 Dec	FINAL EXAM (4:30 - 7:00 p.m. in HLMS 267)	