

URBAN ECONOMICS: ECONOMICS OF CITIES (ECON 4242)  
Department of Economics, University of Colorado  
Fall 2019

*Class time:* M, W, F: 10:00 - 10:50 am                      *Room:* MUEN E431  
*Professor:* Charles de Bartolome                          *Office:* ECON 203  
*Office hours:* Mon 1:50 - 2:50 pm; Tu 1:30 -2:30 pm;    *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*            The class uses *i>clickers*. If you do not already own one, an *i>clicker* may be purchased at the University of Colorado bookstore.

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

*Pre-requisites:*

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

*Course description:*

The U.S. is an urban country, with 80% of the population living in urban areas. First, this course considers the economic forces which drive households and jobs to congregate in metropolitan areas and thereby create cities. Next, it considers how the “invisible hand” of the land market determines how the established cities “look” - how rents are determined and how rents in turn determine where firms and households locate within a city. Next, it considers a city’s size and the interconnectedness between cities. Finally it considers some policy questions related to land-use: zoning, urban sprawl, and the sorting of households between neighborhoods.

*Course Assignments and Canvas:*

All course assignments, problem sets and some lecture notes are posted on Canvas at: <http://canvas.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.

*Clickers:*

Clickers will be used near the end of most classes to reinforce the main point of the lecture.

I consider it fraud 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.

*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.

*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.

*Exams:*

The two midterms will be given in the evening as:

FIRST MIDTERM: Monday 23 Sept 7:00 p.m. - 8:40 p.m.

in TBA

SECOND MIDTERM: Monday 28 Oct 7:00 p.m. - 9:00 p.m.

in TBA

The final exam will be held as:

FINAL: Sunday 15 December 7:30 p.m. - 10:00 p.m.

in MUEN E431

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.

*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. 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.

*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.

*Accommodations 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](#). 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.

*Religious Observance:*

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. See the [campus policy regarding religious observances](#) for full details.

*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](#).

*Honor Code:*

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code ([honor@colorado.edu](mailto:honor@colorado.edu)); 303-492-5550). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from me. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).

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

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct intimate partner abuse (including dating or domestic violence), stalking, protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#).

Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

*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>
1. INTRODUCTION		
26, 28 Aug	INTRODUCTION Fundamental Questions of Urban Economics The need for a model Discussion of regression analysis - the hedonic regression of house prices	1
*30 Aug	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		
4, 6, 9, 11 13, 16 Sept	FORMATION OF CITIES: IRS IN PRODUCTION - market towns - factory cities - port cities - resource cities  <i>Problem Set: Base Case: Market Towns</i> <i>Problem Set: Factory Cities 1</i> <i>Problem Set: Factory Cities 2</i> <i>Problem Set: Port Cities: Normative</i> <i>Problem Set: Port Cities: Positive</i> <i>Problem Set: Resource Processing Cities: Normative</i> <i>Problem Set: Resource Processing Cities: Positive</i> <i>Problem Set: Resource Processing Cities: Long Run</i>	2
18, 20 Sept	FORMATION OF CITIES: CLUSTERING OF FIRMS - input sharing - knowledge spillovers  <i>Problem Set: Input Sharing</i> <i>Problem Set: Knowledge Spillovers</i>	3 (pp. 45-52; 58)
23 Sept	<b>Review</b> <b>FIRST MIDTERM (7:00 - 8:40 pm in )</b>	

25, 27, 30 Sept CLUSTERING OF FIRMS CONT 3  
- labor pooling (pp. 52-58;59-62)  
- better skill matching makes workers more productive

*Problem Set: Labor Pooling*

*Problem Set: Skill Matching*

\* 2 Oct 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.

4 Oct CLUSTERING OF WORKERS (pp. 63-64)  
- better social matching increases worker utility

*Problem Set: Social Matching*

### 3. LAND USE PATTERNS OF THE CITY

7, 9, 11, 14 BID-RENT CURVES 6  
16, 18, 21 Oct - Capitalization: land rent and land price (omit pp. 141-2, 156-60)  
- SR and LR Land Markets  
- Zero-profit  $\equiv$  "Left-over principle"  
- bid-rent for agriculture  
- bid-rent for manufacturing firms  
- bid-rent for offices  
- bid-rent for housing  
- using bid-rent curves to predict land-use patterns

*Problem Set: Competitive land market*

*Problem Set: Factory Bid-Rent*

*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*

23, 25 Oct BUILDING-UP AND SQUEEZING: SKYSCRAPER OFFICES, HIGH-RISE APARTMENTS, TOWNHOUSES AND AND APT. COMPLEXES  
 - building up: substitution of land for capital (pp. 141-2; 159-60)

*Problem Set: Skyscraper Offices: Graphical*  
*Problem Set: Skyscraper Offices: Algebra*

**28 Oct** **Review**  
**SECOND MIDTERM (7:00 - 9:00 pm in )**

30 Oct, 1 Nov BUILDING-UP AND SQUEEZING: SKYSCRAPER OFFICES, HIGH-RISE APARTMENTS, TOWNHOUSES AND APARTMENT COMPLEXES  
 - Substitution in the consumption of housing (pp. 156-159)

*Problem Set: Apts. and Townhouses: Graphical*  
*Problem Set: Apts. and Townhouses: Algebra*

4, 6 Nov LAND-USE PATTERNS CONT. 7  
 Monocentric city (pp. 161-81; 193-195;  
 “Edge Cities” 198-201)  
 Zoning and Open Space (pp. 230-239)

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

#### 4. POPULATION SIZE /SYSTEM OF CITIES

8, 11, 13, 15 Long-run equilibrium city population 4  
 18 Nov - Standard of Living Curve  
 - stable equilibria  
 - entry of new cities  
 - limiting growth: urban growth boundary (pp. 239-247)  
 - globalization: exporting cities  
 - globalization: rust-best cities  
 - policies to reverse decline

*Problem Set: Equilibrium City Population*  
*Problem Set: Urban Growth Boundary*  
*Problem Set: Spreading beneficial effects*



\*20 Nov Helms, L.J., (1985), "The effect of state and local taxes on economic growth: a time-series cross-section approach," *Review of Economics and Statistics* 67, 574-582.

## 5. INNER CITY AND THE SUBURBS

22 Nov, 2 Dec SORTING 8  
- income sorting also: pp. 195-197

*Problem Set : Income Sorting*

\*4 Dec Honig, M., and R.K. Filer, (1993), "Causes of intercity variation in homelessness," *American Economic Review* 83, 248-255

6, 9 Dec SORTING (CONT.)  
- public service sorting  
- educational outcomes

*Problem Set: Public Service Sorting*

11 Dec **Review**

15 Dec **FINAL EXAM (7:30 - 10:00 p.m. in MUEN E431)**