

# AAEC(ENVM) 4510/6510

## Land Economics

### Fall 2021 Course Syllabus

#### Logistics

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**Class Times:** Tuesday and Thursday 2:20 –3:35 pm

Conner Hall, Room 210

**Instructor:** Prof. Yukiko Hashida  
313A Conner Hall  
Email: [yhashida@uga.edu](mailto:yhashida@uga.edu)

**Office hours:** By appointment only

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**Office hours:** By appointment

#### Course Pre-requisite

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AAEC 2580 or AAEC 2580E or ECON 2106 or ECON 2106E or ECON 2106H

#### Course Pre-requisite or Co-requisite

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AAEC 3580-3580L or AAEC 3580E or permission of department

#### Course Description

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"Buy land – they're not making it anymore." (Mark Twain)

The land is considered a fixed resource as we are not making it anymore. However, it is also constantly changing as we compete for different uses. How we use the land, and the resulting land-use patterns, have substantial environmental consequences. In this course, we study the forces that affect human land-use decisions. We will learn how economic models can be used to predict the spatial land-use pattern. The emphasis will be on familiarizing ourselves with economic concepts and models used for analyzing issues related to land economics. We will also cover some of the spatial analysis techniques used in the literature on land economics.

The course will review applied research topics related to public land management, working-

land management, land conservation, wildlife habitat, climate change adaptation, and wildfire, etc. In reviewing journal articles on these topics, we will address how researchers utilize spatial data in economic analysis to understand land-use outcomes.

## **Course Objectives**

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By the conclusion of this course, students are expected to be able to:

1. Describe the main economic forces that affect land-use decisions.
2. Gain exposure to applied research in land economics.
3. Use economic theory to interpret the spatial configuration of landscapes and predict how these landscapes change as the environment, policies, markets, and institutions change.
4. Judge the applicability and limitations of economic theory to predict landscape changes.

## **Course Materials**

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### **Required Materials**

The readings will be made available through the course website on the eLC. They will be posted for each learning module and should correspond to the lecture contents for the module. See the Course Schedule in the welcoming module to see which topic each reading material is associated with. I also assign complementary newspaper/journal articles, which will also be posted on the eLC.

### **Suggested Materials**

Additional references (some book chapters will be taken from these.):

- Jan K. Brueckner, Lectures on Urban Economics
- Barry C. Field, Natural Resource Economics: An Introduction
- Edward Glaeser, Triumph of the City (highly recommend)
- Ryan-Collins, J., Lloyd, T., & Macfarlane, L., Rethinking the Economics of Land and Housing

- Barlowe, R., Adelaja, S., & Babladelis, P. Land Resource Management: Economic Foundations and New Directions
- Ron Shaffer, Steve Deller, Dave Marcouiller, Community Economics
- John Loomis, Integrated Public Lands Management: Principles and Applications to National Forests, Parks, Wildlife Refuges, and BLM Lands
- Partha Dasgupta, The Economics of Biodiversity: The Dasgupta Review, UK HM Treasury, available at <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

## Course Format

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The course consists of lectures and discussions. The daily schedule is posted on the eLC ("Course Schedule") - please be aware that the schedule might change as we go through the material. Please check back the schedule regularly. I will try to record and post lecture videos on the eLC after the class for those of you who want to review them later. However, this is not a substitute for attending the class in real time.

## Course Expectations and Grading

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You will be graded on the following items. Those who are in the graduate programs (including Double Dawg) are required to do an additional assignment – a research proposal using the hedonic pricing approach. The undergraduate students are also welcome to write a research proposal, but it is not mandatory. Grading schemes differ between undergrad and grad students. Details for each item are below.

	<b>Undergraduate</b>	<b>Graduate</b>
Homework Assignment (5)	20% (4% each)	15% (3% each)
Midterms (best 2 of 3)	30% (15% each)	30% (15% each)
Final exam	30%	25%
Writing assignment	20%	10%
Research proposal (grad students only)	NA	20%
Total	100%	100%

## **Participation**

I expect you to attend each class, having completed the reading assigned for that day and prepared to contribute to the discussion. On some occasions, I will ask you to prepare your thoughts on the assigned reading. Although I deliver my lectures with presentation slides, I also want the class time to be interactive. I will take note of the quality of interactions and contributions to the discussion, which might determine the final grade for those who are at the margin of letter grades.

## **Reading Assignments**

All the reading materials will be posted on the eLC. You may find some of the journal articles difficult to read - don't get stuck on the mathematical equations. Focus on the "big picture" - what is the main objective of the study, why is it important, how are the authors trying to achieve the goal (i.e., methods), and what are the main findings?

## **Homework Assignments**

I will assign five homework assignments throughout the course. As an incentive to attend the class regularly, I will go over some sample questions during the class that are similar to the questions that you will see in your homework and exams. All assignments are to be submitted through eLC. No late submissions are accepted.

## **Midterms**

There will be three midterms at the end of each module, except for the last module. Each midterm will focus on material covered in each module. I will drop one with the lowest grade when I calculate the final grade for each of you. Because of this, I will not allow any make-ups (including the final exam) unless there are exceptional circumstances (e.g., excused absence with advance notice, medical reason with a doctor's note).

Midterms will be given both in-class and online (Zoom) to accommodate the ever-changing public health environment and various needs that students face. If you decide to take exams on Zoom, you need to be present on Zoom during the exams with your camera on.

Exams will be open book and open notes. Any collaboration with someone else, whether with a student in the same class or not, is considered cheating and will be reported.

## **Final Exam**

The comprehensive final exam will be administered during the regular exam period – 12/9 (Thu), 3:30 – 6:30 pm. It is planned to be offered both in-class and online (like midterms) unless the circumstance changes.

## **Writing Assignment**

For this assignment, you will work with a partner to identify a news article from a major newspaper or magazine (e.g., Atlanta Journal Constitution, New York Times, Washington Post, The Economist, Wall Street Journal, National Geographic, New Yorker, etc.) that is related to one of the topics covered in our class. Once you choose an article, you will summarize the article using language and models from class to offer additional insight and/or pose further question(s). You can complete this assignment at any point during the class.

## **Final Research Proposal (grad students only)**

If you are a graduate student (or choose to do it voluntarily), you will write a research proposal using the hedonic pricing method. Each student will communicate with me either by email or in person at each step before submitting your final paper: (1) identifying a topic and research question (by 10/19) and (2) forming a model and identifying the required data (by 11/11). You will be responsible for a 2,000 - 3,000-word report due on 12/7 by 11:59 pm.

## **Final Grade**

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The grades are based on the following scale:

A	93 and above
A-	[90-93)
B+	[87-90)
B	[83-87)
B-	[80-83)
C+	[77-80)

C	[70-77)
C-	[65-70)
D	[60-65)
F	Below 60

## Topical Outline of the Course

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I update a separate daily schedule, which is available on eLC. This is a working document and will be revised during the semester. Below is a rough outline of the topics we cover.

1. Course outline and introduction
2. Introduction to land economics
3. Land-use models
  - a. Monocentric model of the city
  - b. Land use equilibrium
  - c. Spatial equilibrium model
  - d. Hedonic pricing model
  - e. Tiebout sorting model
4. Empirical research methods
  - a. Managing spatial data in a model
  - b. Hedonic pricing model application
  - c. Matching methods
  - d. Discrete choice and landscape simulation
5. Land use and environment
  - a. Market failure and externalities
  - b. Public land management
  - c. Land conservation
  - d. Economics of biodiversity
  - e. How to balance human needs and other needs
  - f. Wildlife conservation
  - g. How climate and land use interact
  - h. Climate change adaptation
  - i. Wildfire

## University Honor Code and Academic Honesty Policy

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UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at [www.uga.edu/ovpi](http://www.uga.edu/ovpi). Every course syllabus should include the instructor's expectations related to academic integrity.

## Mental Health and Wellness Resources

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- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.

Additional resources can be accessed through the UGA App.

## COVID-19 Information

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**Face coverings:** Following guidance from the University System of Georgia, face coverings are recommended for all individuals while inside campus facilities.

### How can I obtain the COVID-19 vaccine?

University Health Center is scheduling appointments for students through the UHC Patient Portal ([https://patientportal.uhs.uga.edu/login\\_dualauthentication.aspx](https://patientportal.uhs.uga.edu/login_dualauthentication.aspx)). Learn more here – <https://www.uhs.uga.edu/healthtopics/covid-vaccine>.

The Georgia Department of Health, pharmacy chains and local providers also offer the COVID-19 vaccine at no cost to you. To find a COVID-19 vaccination location near you, please go to: <https://georgia.gov/covid-vaccine>. In addition, the University System of Georgia has made COVID-19 vaccines available at 15 campuses statewide and you can locate one here: <https://www.usg.edu/vaccination>

### **What do I do if I have COVID-19 symptoms?**

Students showing COVID-19 symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see, <https://www.uhs.uga.edu/info/emergencies>.

### **What do I do if I test positive for COVID-19?**

If you test positive for COVID-19 at any time, you are required to report it through the DawgCheck Test Reporting Survey. We encourage you to stay at home if you become ill or until you have excluded COVID-19 as the cause of your symptoms. UGA adheres to current Georgia Department of Public Health (DPH) quarantine and isolation guidance and requires that it be followed. Follow the instructions provided to you when you report your positive test result in DawgCheck.

**Guidelines for COVID-19 Quarantine Period** (As of 8/1/21; follow DawgCheck or see DPH website for most up-to-date recommendations)

Students who are fully vaccinated do not need to quarantine upon exposure unless they have symptoms of COVID-19 themselves. All others should follow the Georgia Department of Public Health (DPH) recommendations: Students who are not fully vaccinated and have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 10 days. Those quarantining for 10 days must have been symptom-free throughout the monitoring period and continue self-monitoring for COVID-19 symptoms for a total of 14 days. You should report the need to quarantine on DawgCheck (<https://dawgcheck.uga.edu/>), and communicate directly with your faculty to coordinate your coursework while in quarantine. If you need additional help, reach out to Student Care and Outreach ([sco@uga.edu](mailto:sco@uga.edu)) for assistance. Students, faculty and staff who have been in close contact with

someone who has COVID-19 are no longer required to quarantine if they have been fully vaccinated against the disease and show no symptoms.

**The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary. Please check eLC regularly for changes and updates.**