

# AAEC (ENVM) 4510/6510

## Land Economics

### Fall 2022 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

**Office hours:** Tue/Thu 3:45 – 4:45 pm and by appointment

**Teaching Assistant:** Yun Fan  
Email: Yun.F@uga.edu

**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 and evaluate the economic values of non-market goods and services. The emphasis will be on familiarizing ourselves with economic concepts and models used for analyzing issues related to the nexus of land use and the environment. We will also cover some of the spatial analysis techniques used in the empirical studies. In

reviewing journal articles, we will address how researchers utilize spatial data in economic analysis to understand land-use outcomes. You will also be introduced to ArcGIS and R to work with the spatial data.

## **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. Understand how economic theory and empirical methodologies can be used to interpret the spatial configuration of landscapes
3. Gain exposure to some of the non-market evaluation techniques relevant to land use

## **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 topic that extends over multiple weeks. The readings during the first section, “Fundamentals”, can be studied throughout the course as they could be lengthy to be finished in advance of each class. In this section, I also included different reading materials that cover the same topic as you might find one style easier to understand than others.

### **Suggested Materials**

Additional references (many posted reading materials will be taken from these.):

- Lectures on Urban Economics by Jan K. Brueckner
- Natural Resource Economics: An Introduction by Barry C. Field
- Triumph of the City by Edward Glaeser
- Rethinking the Economics of Land and Housing by Ryan-Collins, J., Lloyd, T., & Macfarlane, L.
- Zoning Rules! The Economics of Land Use Regulation by William A. Fischel
- Land Resource Management: Economic Foundations and New Directions by Barlowe, R., Adelaja, S., & Babladelis, P.

- A Primer on Nonmarket Valuation, edited by Patricia A. Champ, Kevin J. Boyle, and Thomas C. Brown.
- Community Economics by Ron Shaffer, Steve Deller, Dave Marcouiller
- Integrated Public Lands Management: Principles and Applications to National Forests, Parks, Wildlife Refuges, and BLM Lands by John Loomis
- The Economics of Biodiversity: The Dasgupta Review by Partha Dasgupta, 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, discussions, and in-class activities. We will start with fundamental concepts and go into empirical topics such as land conservation and wildlife preservation. Each topic includes an overview, class discussion on real-world examples, lecture on theory and framework, discussion of the scholarly research on the topic, and, if applicable, in-class exercise on the methodology. There will be homework assignments related to each topic.

I will use the Announcement function on the eLC course website regularly. Please check them for important updates and changes.

## Course Expectations and Grading

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You will be graded on the following items.

	<b>Grading breakdown</b>
Homework	30%
Participation	10%
Final exam (take-home)	30%
Research proposal and story map	30%
Total	100%

## Attendance

Except for students on Tifton and Griffin campuses, students are expected to attend class in-person unless they are experiencing Covid-like symptoms and/or have tested positive for Covid. In this case, you may attend class remotely via Zoom with advance notification to the

instructor. Following UGA policy, attending class remotely via Zoom is to accommodate Covid and other documented hardships approved by the instructor (which generally do not include such things as accommodating students' work schedules, vacations, or other discretionary events).

Although I will not be taking attendance on a regular basis, I will keep track of attendance through an occasional record taking of students in attendance in a particular class. Class attendance will be one of the factors I will take into consideration when determining final grades for students who are on the border between two grades, including pluses and minuses.

## **Participation**

Class participation involves (1) attending the entire class period, (2) reading the assigned materials before class and coming prepared to discuss this material, and (3) completing in-class activities. In-class activities will range from discussions (small group or entire class), debates, in-class exercises on research methods, etc. On some occasions, I will ask you to prepare your thoughts on the assigned reading. I want the class time to be interactive. I will take note of the quality of interactions and contributions to the discussion, which will be counted toward the final grade.

## **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**

The homework will include conducting similar exercises that we will go over together during class time. You can work with your classmates, but you must write up your answers and submit them individually. No copy and paste of somebody else's answer are allowed. Submissions that fail to be considered independent work will receive zero points. All assignments are to be submitted through eLC. No late submissions are accepted.

## **Final Exam**

The final exam will be a take-home. You will be given a certain timeframe to complete the questions and submit your answers to the eLC. It will likely be testing your knowledge of the applied research method we cover during the course (i.e., using a dataset for analysis on the computer, etc.). Any collaboration with someone else, whether with a student in the same class or not, is considered cheating and will be reported.

## **Research Proposal and Story Map**

This assignment has three components: (1) a written report, (2) a GIS story map, and (3) a short presentation (~8 min.) of the story map (voluntary for undergrads, mandatory for grads). Undergraduate students may choose to work in groups of 2-3 students. Graduate students are required to work individually. The objective of this assignment is for you to learn: (1) how to work with spatial data, (2) how to use it to inform the research ideas, and (3) how to write an effective proposal to sell your ideas to potential donors/funding agencies.

- (1) For the written proposal, you are required to write a brief research proposal (2,000 – 3,000 words report) on any topic that involves land use. Your proposal must be based on map(s). Spatial information expressed in maps can tell a lot of things; for example, a map showing the locations of wildfire occurrences and where people live can inform us of an interesting research question. Your assignment is to use spatial information effectively to sell your research idea. The proposal should 1) outline your research question based on the maps, 2) explain why the research is important enough to warrant funding, and 3) briefly explain the potential methodology you would apply if you were to conduct such analysis. Each group/student will communicate with me either by email or in person about your planned research question by October 18. Your final proposal will be due on 12/6 by 11:59 pm.
- (2) For the GIS story map, you will create a story map (<https://storymaps.arcgis.com/en/>) that summarizes your written proposal visually. We will have an in-class story map overview session in September. All UGA students have access to ArcGIS accounts with their myID and password. The instruction on how to create your account and log

into the online ArcGIS website is in the eLC “GIS Story Map” folder. The story map is due on 12/6 by 11:59 pm.

- (3) For the presentations, you will have the opportunity to present your story maps in class during the last two class sessions. This part is intended to be an informal exchange of ideas and celebration of your efforts, so your presentations will *not* be graded. The presentation is voluntary for undergrads (note: graduate students must present). However, I might add extra points to the story map grade if the presentation is exemplary.

## 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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Below is a rough outline of the topics we cover. A more detailed schedule with homework and reading assignments is posted on the eLC. It will be frequently updated throughout the semester based on the progress, interests, and needs.

Date	Topic
8/18	Introduction to the course
8/23 – 9/18	Fundamentals
<b>9/15</b>	<b>No class</b>
9/20 – 10/4	Housing prices and environmental amenities
10/6 – 10/13	Land conservation and public land management
10/18 – 11/1	Restoration of natural systems and non-use values

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11/3 – 11/10	Wildlife conservation
11/15 – 11/17	Wildfire
<b>11/22 – 11/24</b>	<b>Thanksgiving Break</b>
11/29 – 12/1	Students' presentations of story maps

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## **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.

**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.**