ESCI 6226/GEOG 8226 Landscape Ecology
Fall 2025

Meeting time: TR, 8:30 - 9:45 am
Location: McEniry 123
Course credits: 3
Instructor: Dr. Sara Gagné
Office: McEniry 317
E-mail: sgagne@charlotte.edu
Office hours: Mondays, 9-10 am, or by appointment.
Please use your UNCC e-mail address to contact me. I will not respond to e-mails from other addresses.

Course objectives

This course is intended as an introduction to the field of Landscape Ecology, the study of the interaction between spatial patterning and ecological processes. We will explore the theories and principles underlying the major themes in landscape ecology and delve into the applied aspects of the science. Lectures will be complemented by group discussions of a (roughly) weekly reading. Readings have been selected to provide you with a thorough understanding of the topics covered in lecture and/or to be representative of current research. The course will culminate with a final project intended to provide you with the opportunity to practice Landscape Ecology, from elaboration of a research question to interpretation of results.

Assessment

Participation	10%
Discussion presentation	20%
Discussion summaries and critiques	20%
Final Project RQs, Hypotheses, Predictions	10%
Final Project Methods	10%
Final Project Results	10%
Final Project Presentation	20%

Grading scheme

A	90-100%	Commendable
B	80-89%	Satisfactory
C	70-79%	Marginal
U	< 70%	Unsatisfactory

Discussion presentation

At the beginning of every discussion, one small group of students will present their summary of the paper they chose. Presentations should be 15-20 minutes in length and structured around Powerpoint or Prezi slides. Each presentation should include:

1. An explanation of why the group chose the paper and why the paper is an example of a landscape ecology study.
2. A concise summary of the paper, including:
    a. the research objective(s), goal(s), and/or question(s), and the authors' hypotheses and predictions,
    b. the need for the research or its importance according to the author(s),
    c. the methods used to address the research objective(s)/goal(s)/question(s),
    d. the major results with reference to at least one table or figure; the figure or table should be explained to the class,
    e. the author(s)' explanation or interpretation of the results in the Discussion section, and
    f. the conclusions or take-home messages.
3. Three discussion questions based on the paper for the class.

Pre-discussion summaries and critiques

Pre-discussion summaries and critiques are intended to help structure your critical analysis of the reading and to help prepare you for the upcoming discussion.

Prior to each discussion, you are expected to submit: (1) a maximum 300-word, abstract-like summary of the reading that describes as many of the elements included in a discussion presentation as possible, (2) the single most important take-home message from the reading, (3) three critiques of the reading that you will use as the basis for your comments during the discussion, and (4) a question you have about the reading that you want answered during the discussion.

Submit all four items in one hard copy document at the end of each discussion. Students doing a discussion presentation for a reading do not have to submit a pre-discussion summary and critique that week.

Late policy

Deadlines for submission of work are clearly indicated in this syllabus. Late submissions will be accepted and graded according to the following schedule: work submitted up to 24 hours after the deadline will receive a 25% penalty; work submitted between 24 and 48 hours after the deadline will receive a 50% penalty; and work submitted more than 48 hours after the deadline will not be accepted.

UNC Charlotte Code of Student Responsibility

You are expected to observe the UNC Charlotte Code of Student Responsibility (see http://legal.uncc.edu/policies/up-406).

UNC Charlotte Code of Student Academic Integrity

You are expected to observe the UNC Charlotte Code of Student Academic Integrity (see http://legal.uncc.edu/policies/up-407). The Code prohibits cheating, the fabrication and falsification of information, multiple submission of the same work for credit, plagiarism, the abuse of academic materials, and complicity in academic dishonesty.

If you are unclear as to what constitutes a violation of the Code, please see the TA or me during office hours.

Students with disabilities

If you have a disability for which you wish to receive academic accommodations, please provide me with a letter of accommodation from the Office of Disability Services at the beginning of the semester. For more information about disability services go to http://ds.uncc.edu/.

The use of generative AI tools

Generative artificial intelligence materials, equipment, websites, or tools are prohibited for completing course assignments, quizzes or examinations, or other academic exercises unless I explicitly permit such use for legitimate pedagogical purposes.

SCHEDULE (subject to change)

Week	Date	Topic
1	Aug 19	Introduction to course What is landscape ecology?
	Aug 21	What is landscape ecology? *Discussion: Risser et al. (1984)*
2	Aug 26	Scaling Issues in Landscape Ecology
	Aug 28	*Discussion: Jackson & Fahrig (2015)*
3	Sept 2	Landscape Heterogeneity and Dynamics
	Sept 4	*Introduction to final project – bring your laptop!* ***Discussion papers due***
4	Sept 9	*Final project work time in class*
	Sept 11	Landscape Heterogeneity and Dynamics ***RQs, Hypotheses & Predictions due***
5	Sept 16	Landscape Pattern Analysis
	Sept 18	*Discussion 1 (Cody & Carter; Buma et al 2019)*
6	Sept 23	Landscape Effects on Population Distributions and Dynamics
	Sept 25	*Discussion 2 (Pegah & Phillip; Alves d'Acampora et al 2023)*
7	Sept 30	*Final project work time in class*
	Oct 2	*Discussion 3 (Safia & Geremie: Nowakowski et al 2018)*
8	Oct 7	*Final project work time in class* ***Methods due***
	Oct 9	STUDENT RECESS – NO CLASS
9	Oct 14	Landscape Effects on Population Distributions and Dynamics
	Oct 16	*Discussion 4 (Bill & Rose; Rio-Maior et al 2025)*
10	Oct 21	*Final project work time in class*
	Oct 23	*Discussion 5 (Ian & Cameren; Wiens 1989)*
11	Oct 28	Landscape Effects on Community Structure and Dynamics
	Oct 30	*Discussion 6 (Luca & Kasey; Knowlton & Graham 2010)*
12	Nov 4	*Final project work time in class*
	Nov 6	*Discussion 7 (Justice & Josh; Diamant et al. 2025)*
13	Nov 11	VETERAN'S DAY – NO CLASS
	Nov 13	*Discussion 8 (Brandon & Haeden; Li et al. 2024)*
14	Nov 18	Landscape Connectivity ***Final Results due***
	Nov 20	*Final project work time in class*
15	Nov 25	*Final presentations*
	Nov 27	THANKSGIVING BREAK – NO CLASS
16	Dec 2	*Final presentations*

The final exam period is Tuesday, December 9, 8-10:30 am. Final project presentations will occur during this time.