

GEOG 3215: Environmental Planning.

Dept. of Geography & Earth Sciences, University of North Carolina at Charlotte
Instructor: Robert Boyer, Assistant Professor [rboyer1@uncc.edu, 704-687-5979]
Friday 2:00-4:45PM
McEniry Building, room 420 (computer lab)

Course Description

GEOG 3215: Environmental Planning explores the historical evolution, contemporary issues, and technical skills involved in environmental planning and management. While environmental planning takes place all over the world, at every geographical scale (local, regional, national and global), this course focuses most intensively on planning at the local and regional scale with a particular emphasis on landscape conservation in Charlotte and Mecklenburg County, North Carolina. This course is also a writing-intensive “W” course, and uses dilemmas in environmental planning to help students produce polished, professional, and “stinging real” content for future use in a portfolio. While the course has no pre-requests, it is expected that students have some interest in understanding and resolving environmental dilemmas.

Environmental planning is an evolving and highly contested topic. For generations, communities have confronted dilemmas about the proper use (or non-use) of ‘natural’ landscapes like forests, wetlands, water systems, and extractable resources like coal, oil, and natural gas. Extracting and consuming natural resources is arguably necessary for basic human survival: our species has survived and flourished all over the planet because we are able to access energy and materials for food, shelter, clothing, and other basic needs. Yet the human consumption of ‘natural’ resources can result in unwanted, perhaps unforeseen consequences to human health, safety, and well-being. Sometimes these consequences are sudden and perilous like fires, disease outbreaks, and oil spills; sometimes these consequences build up slowly and avoid detection for generations. Climate change, for example, is difficult to distinguish from typical fluctuations in local weather patterns, yet its overall effect on global ecosystems is undeniable and severe. Environmental problems also affect different groups of people in different places differently. Very often, poorer communities suffer the most acute consequences of resource extraction and consumption while wealthier communities and individuals can afford to isolate themselves from these consequences and reap the benefits.

Environmental planning attempts to apply knowledge of how ecological systems and human systems work to decisions about the built environment. At its best, environmental planning allows for sustainable extraction and consumption of natural resources with minimal long-term harm to human and non-human life. This undertaking is wrought with moral and ethical dilemmas that we will confront in class. For example:

- What is ‘nature’? If humans are a part of ‘nature’ and dependent upon ‘natural’ processes, then where does nature start and stop?
- What is the ‘environment’? Is there a difference between ‘environmental planning’ and plan-ole’ ‘city planning’? In other words, if the environment is *everything everywhere*, then couldn’t it just as well be *nothing* and *nowhere*?
- What is the ‘value’ of non-human life? How do different ethical perspectives justify different environmental management practices such as the destruction of forests and wetlands?
- Who has the authority to make decisions about the management of the environment and life-supporting ecosystems?
- What are the costs and benefits of converting complex ecological landscapes (forests, wetlands, prairies) into urban and rural human-centered land uses (e.g. parking lots, buildings, roads, and farms).
- Is it possible to manage nature and the environment in a ‘sustainable’ way that allows for economic development *without* compromising the capacity of life-supporting ecosystems?

Course Objectives

Students in this course will...

- Understand and articulate major historical and contemporary dilemmas in environmental planning
- Understand the strengths and limitations of existing approaches to environmental planning
- Compose two high-quality pieces of written work that can be used in a professional portfolio
- Learn to use spatial data and ArcGIS software to making convincing data-driven arguments about land use
- Learn how to communicate and collaborate on a small team

Team-Based Learning

Working and learning in teams is a critical component of this course. It is also a critical skill in the planning profession. Early in the semester, you will be assigned to a permanent team of 5-6 members. We will form teams in class, using a process that balances skills and experience across teams. You will work with your assigned team in almost every classroom session, and will likely meet with your team outside of class from time to time. Teams will collaborate on “Readiness Assurance Tests” (RATs), Application Exercises, and serve as each others’ editors on written assignments. At multiple points in the semester you will provide and receive qualitative feedback from your teammates.

Reading Material

This course requires that students engage in readings and other media outside of class. Students are required to purchase one text that is available at the UNC Charlotte bookstore:

- Randolph, John. *Environmental Land Use Planning and Management*. Island Press, 2012.

Course Schedule

		Topic	Required Reading	Due in Class
Jan	9	Introduction to Environmental Planning, Team-Based Learning, and Concise and Stinging-Real Writing.		
	16	The Evolution of Environmental Management and Planning	Ch1, Randolph	Due [1/15 on Moodle]: Stage 1, Writing Assignment 1
	23	Environmental Planning for Sustainability	Ch2, Randolph	Due [1/22 on Moodle]: Stage 2, Writing Assignment 1
	30	Plan Making for the Environment	specific excerpts of Ch3 & 4, Randolph	Due [1/29 on Moodle]: Stage 3, Writing Assignment 1
Feb	6	Environmental Data and Geospatial Analysis	Ch5, Randolph	Due [2/5 on Moodle]: Stage 4, Writing Assignment 1
	13	Water and Land Use	Ch7, Randolph	Due [2/12 on Moodle] Stage 1, Writing Assignment 2.
	20	Water and Land Use	Team-based application exercise.	Due [2/23 on Moodle]: First Final Draft , Writing Assignment 1
	27	Watershed Analysis	Urban Ecosystem Analysis-Mecklenburg County (Posted to Moodle)	
March	6	No Class. Spring Break.		
	13	Energy, Air Quality, and Climate Change	Ch12, Randolph	Due [3/12 on Moodle] Stage 2, Writing Assignment 2. Watershed runoff analysis
	20	Integration Methods and Synthesis Metrics	Ch14, Randolph	
	27	Butterfly Highway Field Trip	Miller-Rushing et al. (2012)	
April	3	No Class. "Spring Recess"		
	10	No Class.		

	17	Community Smart Growth Management	Ch 16, Randolph	Second Final Draft Deadline. Writing Assignment 1.
	24	Smart Growth continued	Ch 17, Randolph	
May	1	Revision Day (Final Exam time)		Preliminary Draft of Writing Assignment II due in class.
	6			Final Deadline of Writing Assignment II. Due on Moodle.

Evaluation

Readiness Assurance Tests (RATs), 25% of final grade. RATs are 10-question quizzes that take place at the beginning of most class sessions. RATs test basic knowledge of the required readings and can be easily passed if you complete the readings and make use of the reading guides provided by the instructor. You will take each RAT as an individual (iRAT) and re-take the identical RAT with your team (tRAT). iRATs will be worth between 50 and 75 percent of your final RAT grade. We will decide the exact proportion as a class.

RAT Appeals Process

Teams have 24 hours to appeal answers marked incorrect on their RATs. Appeals must express a specific concern with a question on the RAT, and offer evidence (e.g. a page number and quotation in a required reading) that a different answer was equally or more appropriate. Appeals can also be issued if a RAT question was poorly worded or somehow misleading. Such an appeal must explain why the particular question was misleading, and where it ‘led’ your team. Appeals must follow these instructions precisely:

- Submit an appeal as a single e-mail to the instructor within 24 hours of the completion of the class session (i.e. before Saturday 4:45pm).
- The e-mail must have the subject line “RAT APPEAL, GEOG3215, <TEAM NAME>, DD/MM/YYYY”.
- Team members will only receive credit for the appeal if their e-mail address is copied to the e-mail.
- Teams may appeal more than one question per class session, but can only make 5 total appeals in the semester.

Application Exercises, 10% of final grade

Application exercises are team-based challenges that require you to apply knowledge from lecture and readings to a specific problem. They take place in-class. These challenges require analytical and critical thinking, and will likely involve negotiation amongst members of your group. They are designed to simulate the types of decision-making scenarios you will encounter in a professional planning setting. Some application exercises will require your team to bring supplies to class (e.g. scissors and glue sticks).

Writing Assignments I & II, 65% of final grade.

Writing is a major component of this class. Fifty percent of your grade will be based on two pieces of written work. Each will be 5-single-spaced pages in length. We will spend a significant portion of our time in class reviewing each others writing and working toward creating professional, polished, and “stinging real” essays—that is, essays that captivate your reader’s attention, forcing them to peer into their own experiences and beliefs. Each writing assignment will follow very specific guidelines and will be completed in phases as an entire class.

Writing Assignment I requires that you exam a contemporary environmental dilemma through the eyes of an historical debate between ‘preservationists’ and ‘conservationists’. Drawing from readings provided in class and news media that you access on your own, you will construct an analogy about environmental dilemmas in the past and environmental dilemmas today.

Writing Assignment II requires that you draw from existing spatial data in a specific Mecklenburg County watershed to propose changes in environmental and land use policy. You will, in short, be creating a watershed conservation plan that combines the skills you have gained through the semester.

* Writing Assignment I has a “**First Final Draft**” deadline and a “**Second Final Draft**” deadline at the end of the semester. After submitting the first final draft you will receive a preliminary grade on each writing assignment. You have the power to improve this grade, however, by scheduling an appointment with the Writing Resource Center (<http://writing.uncc.edu/writing-resources-center/schedule-appointment>), revising your paper and re-submitting. I will average the grade from your two drafts for your final grade on writing assignment I.

Attendance

No official role will be taken in this class, however every class session offers specific opportunities for participation that cannot be made-up in other classes. If, for example, you miss a class with an iRAT, you cannot make up these points. If you miss a class with a team exercise, your team members in class are responsible for deciding whether or not you will receive credit for that exercise on that day. It is therefore as important for you to communicate with your team about absences as it is to communicate with the instructor.

You will not be penalized for missing in-class assignments if you provide timely evidence of illness or family emergency. Other obligations that require you to miss class will be evaluated on a case-by-case basis, but such obligations should be discussed with the

instructor as early in the semester as possible. Last-minute or retroactive excused absences will not be considered.

Outside of class, and office hours

You are welcome to consult the instructor outside of class, at anytime over e-mail. I will do my best to reply to your e-mails immediately but I handle a lot of e-mail, so if you have not received a reply within 48-hours, please send a follow-up message.

You are also welcome to visit me during office hours.

- Tuesday 1:00-2:30PM or by appointment, room 425 McEniry. If you'd like to schedule an appointment, please e-mail me[rboyer1@uncc.edu] with three half-hour time slots that work for you.

University Policies

Academic Integrity Students are responsible for knowing and following The Code of Student Academic Integrity and The Code of Student Responsibility. These can be found at <http://www.legal.uncc.edu/policies/ps-105.html> and <http://www.legal.uncc.edu/policies/ps-104.html> respectively. Standards of academic integrity will be enforced in this course. *Questions regarding the policies and enforcement of the policies should be addressed to me during class or during office hours.*

Accommodations UNCC abides by interpretations of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 that stipulates no student shall be denied the benefits of an education "solely by reason of a handicap." Disabilities covered by law include, but are not limited to, learning disabilities, hearing, sight or mobility impairments, and other health related impairments. This course will gladly provide accommodations for students with documented needs. If you feel you need an accommodation, please contact the Office of Disability Services, Fretwell 230, Phone 704-687-4355 for the necessary evaluation and documentation.

Diversity The University of North Carolina at Charlotte is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, sexual orientation, age or disability. In keeping with this commitment, UNC Charlotte actively seeks to promote diversity in its educational environment through its recruitment, enrollment and hiring practices.