ENVS 131—**Introduction to Environmental Studies**
Oxford College of Emory University, Spring 2019

COURSE INFO

- Instructor: Dr. Melissa Hage, melissa.hage@emory.edu, Room OSB 224, 770-784-8345
- Lecture: Tuesday and Thursday 1:00 – 2:15 pm; Room OSB 223
- Book: The Environment and You, 2nd edition, Christensen and Leege
- Lab: Wednesday 2:00 – 5:00 pm; Room OSB 223

OFFICE HOURS

- Tuesdays 2:30 – 3:30 pm and Wednesdays 10:00 – 11:00 am
- By appointment or chance. I am usually in my office from 8:30 am – 5:00 pm, except for when I am teaching classes or attending meetings.

OVERVIEW

The environment impacts our way of life in many aspects (e.g., food and fiber production, resources for building shelter and infrastructure, water supplies, etc.). Adverse impacts to this environment affect the well-being of humans and other living organisms. Therefore, it is essential that students (majors and non-majors alike) understand natural environmental systems, physical and social causes of environmental problems, and strategies to mitigate or manage these issues.

This course provides the basic scientific knowledge and understanding of how our world works from an environmental perspective. It provides a framework of knowledge into which additional information can be readily integrated over a lifetime of continued learning. Topics covered include, but are not limited to, general issues on the environment, basic principles of ecology and ecosystem function, human population growth, production and distribution of food, water resources and management, water pollution, hazardous chemicals, air pollution and climate change, biodiversity and its conservation, energy resources, and sustainability.

OVERARCHING STUDENT LEARNING OBJECTIVES

The two **overarching goals** of this course are:

1) to peak your curiosity about the Earth they inhabit, gain knowledge about the natural world, and to share that curiosity and knowledge with others. You should be able to observe the world around you, marvel at what you see, and understand the processes at work.

2) to impart to you a relevance of scientific knowledge and processes so that you can become more critical thinkers and better decision-makers – economically, politically, socially, and personally.

At the completion of this course, you will be able to:

- ***Discuss*** the major themes in environmental science
- ***Understand*** the natural world and the human impact on its processes, and how those impacts can be mitigated
- ***Observe*** the natural world, generate questions, and evaluate evidence
- ***Develop*** field techniques and ***analyze*** real-world data

- ***Evaluate*** ongoing environmental issues through the lens of sustainability
- ***Communicate*** scientific information both verbally and in writing

GRADING AND ASSESSMENT

	%
Exams (3 x 12%)	36
Lab	18
Lab Practicum Exam	7
Final Project	12
In-Class Quizzes	8
In-Class Activities and Participation	7
Pre-Class Quizzes	6
Homework Assignments	6
Total	100

Letter Grade	Percent Equivalent
A	94-100
A-	90-93
B+	87-89
B	84-86

Letter Grade	Percent Equivalent
B-	80-83
C+	77-79
C	74-76
C-	70-73

Letter Grade	Percent Equivalent
D+	67-69
D	60-66
F	0-59

*Note: I do not curve grades. I also do not ***give*** grades. **Your final grade in this class will be based on what you have earned. If you do not pass lab, you will fail the course.**

** I am more than happy to discuss your overall grade or a grade you earned on a specific assignment. However, **I will not do so via email**. If you would like to discuss your grade, please come and see me in person during office hours or make an appointment.

COURSE POLICIES

Grading policies: Grades are assigned on a straight scale (not curved). In the case of grades near the cutoff, good attendance, class participation, and improvement over the course of the semester can have a (+) marginal effect on your final grade. Poor attendance and class participation can likewise have a (-) marginal effect. Students wishing to appeal grading on assignments must do so within 1 week of receiving the graded work.

Weekly Readings: Class periods will be spent reviewing, discussing, and illustrating concepts presented in the assigned book readings and video. This will go more smoothly if you read the assigned materials before class meets on the assigned date.

Pre-class quizzes: Lecturing about terminology is no fun for me or you! In order to introduce you to topics we will be working on in class, there will be a short Canvas quiz based upon the designated reading and/or video prior to many of the classes. These quizzes will allow us to spend class time working through more complex concepts.

- You may submit as many attempts for each pre-class quiz as you would like, and your grade on each quiz will be the average of all attempts.
- All pre-class quizzes are due by 12:30 pm on class days.

- There will be no make-ups for missed quizzes, however, the lowest 2 grades will be dropped.

In-Class Activities and Participation: You are encouraged to actively participate in class discussions in order to enhance and facilitate student dialogue and learning. I invited you to share your experiences, perspectives, questions, and analysis of text, reading materials and assignments. Please don't just be a spectator! That being said, you are all adults and capable of making the decision about whether you chose to come to class or not. Thus, attendance will not be taken in the traditional way. There will be in-class activities designed to check for preparation and understanding, generate discussion, encourage participation, and deepen comprehension of the course material. Simply showing up to class and just sitting there will not get you full participation points for the day.

- For some of these activities, full points will be awarded for completion. For other activities, points will be awarded based on correctness. Some activities will be completed in class; other activities will need to be finished outside of class.
- There will be no make-ups for missed activities; however, the lowest 2 grades will be dropped at the end of the semester.
- There are no excused absences for lecture. The dropping of the 2 lowest activities grades act as your missing class freebies and can be used for any reason (illness, studying, travel, athletic event, family emergency, wild monkeys breaking into your dorm, etc.). Any additional missed classes will count as zeros for those days' activities.

How to Participate

- Answer and ask questions (quality over quantity)
- If you tend to be a less vocal participant in classroom discussions, send your thoughts or questions to me via email, talk to me after class, etc.
- Participation also involves "active" listening, including eye contact, nodding, smiling, raising eyebrows, taking notes, etc.
- Texting, sleeping, talking while I am talking, and being generally disruptive during class meetings will **NOT** earn you participation points.

In-class quizzes: Cooperative quizzes will be administered throughout the semester to check for content understanding and to ensure you are engaging in *distributive studying*.

- Part 1: You will independently take the quiz
- Part 2 (optional): You can re-take a similar quiz, but will work in a group (not the exact same questions, but on the same material)
- Your final score is 75% from Part 1 and 25% from Part 2.
- If you choose not to complete the group quiz or if your grade on Part 1 is higher than Part 2, only your grade from Part 1 will count. Bottom line: taking the cooperative quiz will not negatively affect your quiz grade.
- Some quizzes will be announced, others will not, and quizzes cannot be made up. I will drop the lowest quiz grade to help offset possible extenuating circumstances, such as illness or absence due to an athletic competition.
- Quizzes are administered at the start of class. Late arrivals will not be given additional time and cannot take Part 1 if Part 2 has already or is about to begin.

Late Assignments: If an assignment is due in class, it will be due at the start of class. If it is turned in at the end of class, it is considered late. Most Canvas assignments will be due at 12:30 pm. Assignments will be accepted up to 1 week past the due date. Scores on late assignments will be penalized 10% each day they are late, including weekend days. So, if an assignment is due in class on a Tuesday at 1:00 pm and you turn it in between Tuesday at 1:01 pm and Wednesday at 1:00 pm, you will lose 10%. *After 1 week, the grade becomes a zero*.

Exams: There are 3 exams. Each exam will cover the topics preceding the exam. These are not cumulative, however, keep in mind that we will be building upon prior knowledge and that you will need to utilize that knowledge on subsequent exams. There will be no make-up of exams without a legitimate excuse discussed prior to the exam. Students are cautioned that any excuse for missing an exam will come under sever scrutiny and the instructor will make the final decision regarding whether or not a missed exam is acceptable. **All exam and due date conflicts must be resolved within the first two weeks of the semester.**

Final Project: Environmental Controversies - Students will find a partner in class and investigate a disputed environmental science issue that is most interesting and meaningful to both students. You and your partner will take opposite sides of the debate for your specific topic. Additional details will be provided on Canvas.

Technology Use:

- During class, cell phones must be silenced and put away/out of sight, unless given specific instructions to use them. I understand that time-to-time there may be an emergency/extenuating circumstance that may require you to have your cellphone visible. In these events, please discuss with me. *Cell phones cannot be used as a calculator on any quizzes or exams*.
- You will not be allowed to take pictures of the board or screen. You will learn and retain the material significantly better if you write/draw things down yourself.
- If you would like to take notes on your personal laptop/tablet in class, you must come and talk to me first. Studies have shown that students retain material better if they manually write, rather than type class notes. Additionally, hand writing notes allows for the use of sketches, which is very important in science, and requires some processing of the information in order to decide what is important to write in your notes. Class PowerPoint Presentations will be provided to you after class via Canvas. Use of laptops to surf the web, login to Facebook, Skype or other networking/chat during class is unprofessional and unacceptable and will result in the loss of the privilege to use a laptop during class.

Academic Integrity: Student-professor relationships are built on trust. For example, students must trust that professors have made appropriate decisions about the structure and content of the courses they teach, and professors must trust that the assignments students turn in are their own. Acts that violate this trust undermine the educational process. The Oxford College of Emory University Honor Code (http://oxford.emory.edu/catalog/regulations/honor-code.html) defines various forms of Honor Code violations and you should make yourself familiar with these. In this call, all examinations and assignments that are turned in for a grade falls under the regulations of the Honor Code and must represent the students' own work. Your signature on your work attests to your upholding the Honor Code.

Policy regarding students with disabilities: The Office of Accessibility Services (OAS) works with students who have disabilities to provide reasonable accommodations. In order to receive consideration for reasonable accommodations, students must contact OAS and complete the registration process.

Faculty may not provide disability accommodations until an accommodation letter has been processed; accommodations are not retroactive. Students registered with OAS who receives a letter outlining specific academic accommodations are strongly encouraged to coordinate a meeting time with their professor to discuss a protocol to implement the accommodations as needed throughout the semester. This meeting should occur as early in the semester as possible. Contact OAS for more information at (770) 784-4690 or oas_oxford@emory.edu. Additional information available at: http://equityandinclusion.emory.edu/access/students/index.html.

Religious Holidays: Instructors are encouraged, not required, to accommodate students' academic needs related to religious holidays. Please make every effort to negotiate your religious holiday needs within the first two weeks of the semester; waiting longer may compromise your instructor's ability to extend satisfactory arrangements. If you need guidance negotiating your needs related to a religious holiday, the College Chaplain, Rev. Lyn Pace, ppace@emory.edu, Candler Hall 202, is willing and available to help. Rev. Pace is not tasked with excusing students from classes or writing excuses for students to take to their professors. Emory's official list of religious holidays may be found at http://www.religiouslife.emory.edu/faith_traditions/holidays.html

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LAB SESSIONS

Introduction to Environmental Studies is a field-based observational science, and as such, laboratory sessions provide an excellent opportunity to learn environmental concepts and methods through applied activities. Labs are meant to supplement lecture material – to give opportunities for you apply new knowledge. You will work in research teams. Most of the labs will take place outside – expect to be outside even if conditions are uncomfortable and dress appropriately (layers, rain jackets, etc.). Being in the field can also be uncertain – although lab is scheduled to end at 5:00 pm, keep in mind that traffic and other unforeseen events can delay that time and plan any Wednesday evening meetings accordingly.

Just as assignments are meant to be a dialogue, the entire lab period is also meant for interactions – between you and your research team, between you and I, and between all of us and our environment. Take time to sit and observe your surroundings when possible.

Laboratory Absences:

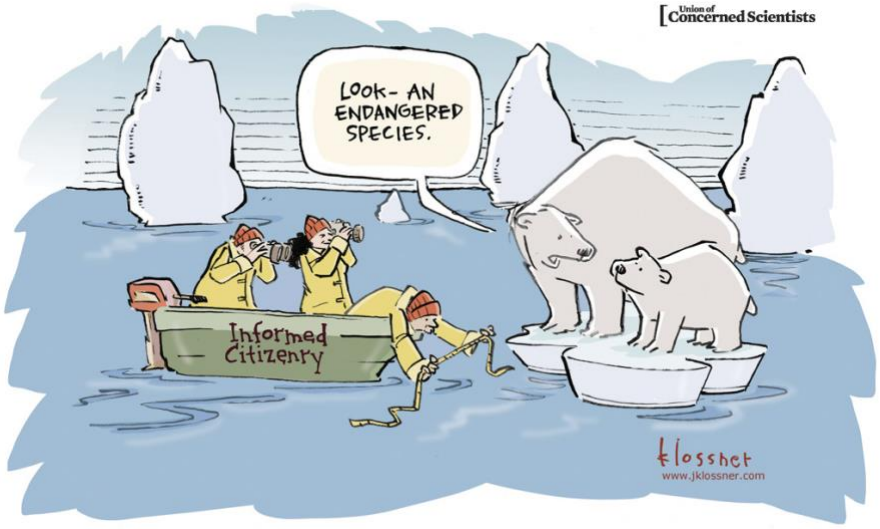
- On rare occasions, illness, family emergencies and certain school-sponsored events may make it necessary for a student to miss a lab session.
- You must notify me BEFORE the day of the absence in all but the most extreme emergencies. In all cases, I will make the final decision regarding whether or not an absence is acceptable.
- You are allowed one excused absence for the semester. The lab activity must be made up within 1 week if possible (depending on the ability to re-setup the lab). Otherwise, the lab grade will be dropped from you grade.
- An unexcused absence from lab results in a 0 for that lab.
- Two unexcused lab absences will result in the failure of the course.

SYLLABUS OF LECTURE AND LAB TOPICS

Class #	Date	Lecture Topic	Reading	Due/Quiz
UNIT 1 – INTRODUCTION TO ENVIRONMENTAL SCIENCE				
1	T - Jan. 15	Welcome and Course Overview		
Lab 1	W - Jan. 16	*No Lab*		
2	Th - Jan. 17	Systems Thinking and the Scientific Method	p. 20 - 23	
3	T - Jan. 22	Sustainability and Tragedy of the Commons	p. 7 - 9, 17 - 19; 24 - 25; Hardin 1968	Tragedy of the Commons Reflection
Lab 2	W - Jan. 23	*Lab: Scientific Investigation*		
UNIT 2 – THE NATURAL WORLD				
4	Th - Jan. 24	The Growth of Populations; Evolution and Natural Selection	p. 104 – 117	Pre-Class Quiz #1
5	T - Jan. 29	Communities and Ecosystems	p. 11 - 16; 154 - 168	Pre-Class Quiz #2
Lab 3	W - Jan. 30	*Lab: Intro to the Piedmont Forest*		
6	Th - Jan. 31	The Carbon Cycle; Community Change	p. 170 - 179	In-Class Quiz #1 Pre-Class Quiz #3
7	T - Feb. 5	Biomes and Biodiversity	Biomes video; p. 228 - 242	Pre-Class Quiz #4
Lab 4	W - Feb. 6	*Lab: Terrestrial Investigation*		
8	Th - Feb. 7	Conserving Biodiversity	p. 243 - 257	Pre-Class Quiz #5 In-Class Quiz #2
9	T - Feb. 12	***EXAM 1***		Project Proposals
Lab 5	W - Feb. 13	*Carter Center*		
UNIT 3 – HUMAN INTERACTIONS WITH THE NATURAL WORLD				
10	Th - Feb. 14	Human Population Growth	p. 124 - 128; 131 - 136; 140 - 147	Pre-Class Quiz #6
11	T - Feb. 19	Water	p. 338 - 341; 344 – 350	Pre-Class Quiz #7 In-Class Quiz #3
Lab 6	W – Feb. 20	*Lab: Wetland Investigation*		
12	Th – Feb. 21	Water	p. 351 - 361	Pre-Class Quiz #8
13	T - Feb. 26	Water	TBD	Envs. Leadership Proposal
Lab 7	W - Feb. 27	*Lab: Stream Assessment I*		
14	Th - Feb. 28	Agriculture and Ecology of Food	p. 381 - 386; 390 - 392	Pre-Class Quiz #9 In-Class Quiz #4
15	T - Mar. 5	Agriculture and Ecology of Food	p. 402 - 411	Pre-Class Quiz #10
Lab 8	W - Mar. 6	*Lab: Stream Assessment II*		
16	Th - Mar. 7	Agriculture and Ecology of Food	TBD	In-Class Quiz #5
SPRING BREAK March 12-14				
17	T - Mar. 19	Waste Management	p. 556 - 563	Pre-Class Quiz #11 Project Check-In #1
Lab 9	W - Mar. 20	*Lab: Soils I*		
18	Th - Mar. 21	Waste Management	p. 564 - 570	Pre-Class Quiz #12
19	T - Mar. 26	Waste Management	TBD	In-Class Quiz #6
Lab 10	W - Mar. 27	*Lab: Soils II*		

20	Th - Mar. 28	***EXAM 2***		
21	T - Apr. 2	Nonrenewable Energy	p. 454; 459 - 462	Pre-Class Quiz #13 Energy Usage
Lab 11	W - Apr. 3	*Lab: Introduction to Granite Outcrops*		
22	Th - Apr. 4	Nonrenewable Energy	p. 463 – 473	Pre-Class Quiz #14
23	T - Apr. 9	Renewable Energy	p. 480 - 485	Pre-Class Quiz #15 In-Class Quiz #7
Lab 12	W - Apr. 10	*Lab: Investigation*		
24	Th - Apr. 11	Renewable Energy	p. 486 - 501	Pre-Class Quiz #16 Project Check-In #2
25	T - Apr. 16	Renewable Energy	TBD	
Lab 13	W - Apr. 17	*Lab: Practicum Exam*		
26	Th - Apr. 18	Climate Change	p. 270 -282	Pre-Class Quiz #17 In-Class Quiz #8
27	T - Apr. 23	Climate Change	p. 283 - 286; 290 - 301	Pre-Class Quiz #18 Climate Change Fact or Fiction
Lab 14	W - Apr. 24	Final Presentations		
28	Th - Apr. 25	Climate Change	TBD	In-Class Quiz #9 Final Project and Paper
	M – May 6	***EXAM 3*** 2 – 5 pm		

**** This is an ambitious schedule subject to change during the semester.** Updated syllabi will be posted to Canvas and an email will be sent out when changes have been made.
** **Not all homework assignments are listed here.** You may have additional homework assignments given throughout the semester.



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