

Biology 111
Environmental Science
Fall 2004
T.R. Wade
Proposed Lecture Schedule

Date	Topic	Chapter
Aug. 26	Science as a way of Knowing: Scientific Method	3
		(3-1, 3-5, 3-7 & 3-8)
31	Ecosystem Structure/ Tragedy of the Commons	1/4
Sept. 2	Ecosystem Function	4
7	Ecological Pyramids	4
9	Biogeochemical cycles: H ₂ O, Carbon	
14	Biogeochemical cycles: nitrogen & phosphorus	4
16	Sustainability, Natural capital, Ecosystem Services	
21	What is a species? How did they evolve?	5
23	Test I (Includes lecture and laboratory material.)	
28	Evidence for Evolution	5
30	Biodiversity and Endangered Species	5/18
Oct. 5	Exotic and Indicator Species	7
7	Keystone Species and their Ecosystems	7
	Debate #1	
12	Fall Break	
14	Population Dynamics and Interactions	8
19	Population Cycles	8
21	Test II (Includes lecture and laboratory material.)	
26	Human Population: Dynamics and Distributions	11
28	Water Resources	14
Nov. 2	The Chattahoochee: Sediment, sewage and pathogens	14
4	The Chattahoochee: Pesticides and POPs	10/16
	Debate #2	
9	Atmospheric Resources and Pollution	12
11	Global Climate Change: evidence and causes	13
16	Ozone Thinning and the Montreal Protocol	13
18	TEST III (Includes lecture and laboratory material.)	

23	Energy: Choices for the future	20
25	Thanksgiving Holidays	No Lab
30	Frankenfoods (GMOs)	16
	Debate #3	
Dec. 2	Catch-up	
7	Wrap-up Day	

FINAL EXAM – Tues., Dec. 15, 2004 - 2:00-5:00 (Test 4 and Cumulative Section)

Goals: “A mind, once stretched by a new idea, never regains its original dimensions.”
Oliver Wendell Holmes

Environmental Science is an interdisciplinary study combining thoughts from many areas including biology, chemistry, geology, economics, politics, ethics, etc. In this course students begin with a study of natural ecological systems and principles in order to understand the interconnected complex workings of our world. Students then apply these ecological principles to local and global environmental problems as we study the human impact. Students will be stretched by many new thoughts and ideas as we wrestle with various environmental issues, ultimately becoming better stewards of our earth.

Text: Environmental Science, Miller, 10th edition

Lecture: Pierce 101, 10:00 a.m. - Tuesday/Thursday

Laboratory: Pierce 101, 2:30 - 5:30 Thursday

Evaluation:

Tests	300 points
Lab Assignments, Critiques and other Writing	
Assignments	150 points
Final Exam	150 points

*Total Points	600 points

*Total points may vary based on possible changes in certain assignments over the semester but the test will count for half the final grade and the exam and writing assignments will each count for a forth of the final grade. Grades are assigned on a plus-minus scale.

HONOR CODE: The Honor Code of Oxford College applies to all work submitted for credit in this course. All such work will be pledged to be yours and yours alone. This is the case when you place your name on any work (tests, papers, lab reports, etc.) submitted.

Office Hours: Wed./Fri. 9:00 a.m. – 11:30 a.m. or by appointment (4-8395)

Proposed Lab Schedule

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Lab meets 2:30-5:30 Thursday afternoons in Pierce 101. There is no Lab Manual, handouts will be given for various labs.

Aug.	26	First Week – no lab
Sept.	2	Scientific Investigation - EXCEL
	9	Terrestrial Investigation – Oxhouse Science Center
	16	Rock Outcrop – Davison Arabia Mt. – Dekalb County
	23	Pond Simulation
	30	Introduction to Wetlands
Oct.	7	Wetland Investigation
	14	Stream Assessment – Data Collection
	21	Stream Assessment – Results and Discussion
	28	Waste Water Treatment Plant
Nov.	4	Garbology Lab
	11	Logging Case Study – Methods
	18	Logging Case Study – Data, Results & Discussion
	25	Thanksgiving
Dec.	2	TBA

Lab schedule is subject to change based on any number of uncontrollable factors.