Biology 111
Environmental Science
Fall 2007
T.R. Wade

"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. According to G. Tyler Miller, Jr., the author of your textbook, it is a study of how the earth works, how we affect the earth's life-support systems (environment), and how we deal with environmental problems. 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 on the biosphere. Students will be confronted by new thoughts and ideas as we wrestle with various environmental issues and hopefully learn how to live more sustainably on this earth.

According to one environmental educator, the goals of environmental education are illustrated in several basic questions:

-What do I know about the place where I live?
-How am I connected to the earth and other living things?
- What is my responsibility as a human being?

Text: Environmental Science, Miller, 11th edition

Learnlink Class Conference: Be sure to add the icon to your desktop and check our conference regularly. I usually send an update on the readings and topics for the next weeks' lecture sometime on Friday.

Blackboard Website : Bio 111 also has a blackboard site that will be helpful to you for lecture, lab and research resources. You might even see yourself ☺ I'll let you know when it is available for use. From Oxford's home page type in: classes.emory.edu (Hint: do not type the www) Login with your opus user ID and password.

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

Proposed Lecture Schedule

Date		Topic	Chapter
Aug.	30	No Child Left Inside	
Sept	4	Your Ecological Footprint….how bad is it???	1
	6	Science as a way of Knowing /Tragedy of the Commons	p.19-p.22

	11	Ecosystems: Interactions and Connections	3
	13	Energy: Gotta have it!	p. 29-34, Chpt. 3
	18	Nutrient Cycles	3
	20	Human Population Dynamics	7 (p.128-140)
	25	Population Growth Rates and Predictions	7(p.128-140)
	27	**Test I (Includes lecture and laboratory material.)**	
Oct.	2	What is a species? How did they evolve?	4
	4	Evidence for Evolution	4
	9	**Fall Break**	
	11	Biodiversity: Threats, Protection and Policies	9
	16	Biodiversity: Conservation and Restoration World Food Day	9
	18	Ecosystem Approach	
	23	Food Supply: Resources and Availability Agricultural Impact	10
	25	**Test II (Includes lecture and laboratory material.)**	
Oct.	30	Water Resources	11
Nov.	1	Everybody lives downstream of somebody	
	6	Water: The Human Impact	11
	8	The Chattahoochee: a case in point	
	13	Air Quality	15
	15	Secondary Pollutants	
	20	**TEST III (Includes lecture and laboratory material.)**	
	22	**Thanksgiving Holidays**	
	27	Global Climate Change	16
	39	Ozone Thinning	
Dec.	4	Power: Today's Issues	13
	6	Energy: Choices for the future	13
	11	Waste: Throw it Where?	17

FINAL EXAM – Mon., Dec. 17, 2007 - 2:00-5:00 (Test 4 and Cumulative Section)

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

Proposed Lab Schedule

Sept.	6	Scientific Investigation - EXCEL
	13	Terrestrial Investigation – Oxhouse Science Center
	20	Rock Outcrop – Davison Arabia Mt. – Dekalb County
	27	Introduction to Wetlands
Oct.	4	Wetland Investigation
	11	Stream Study: Data collection
	18	Stream Study: Sorting, results and conclusions
	25	Waste Water Treatment Plant
Nov.	1	Water Reclamation in the Industrial Setting
	8	Logging Case Study: Methods
	15	Logging Case Study: Data, Results & Discussion
	22	Thanksgiving Break
	29	Invasives in the Hearn Forest
Dec.	6	TBA

Lab schedule is subject to change based on any number of uncontrollable factors (the blooming of flowers, trees dropping their leaves, hurricane rains, etc.)

Lab/Writing Assignments: Students will be submitting various types of writing including lab reports, critiques, position papers, etc.

Evaluation:

Tests	300 points
Lab/Writing Assignments	100-150 points
Final Exam	about 150 points
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*Total Points	550- 600 points

*Total points may vary based on possible changes in certain assignments over the semester. Grades are assigned on a plus-minus scale.

Office Hours: Wed./Fri. 9:00 a.m. – 11:30 a.m. or by appointment (4-8395) OR you can always just come look for me but remember I might be scurrying around the labs or out in the greenhouse. Check with Ms. Budensiek before you give up and leave Pierce.

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, writing assignments, lab reports, research papers, etc.) submitted. There will be times when you may work in a group to collect data but the writing assignments will be on your own after that point. If you have any questions about how the honor code applies to any tests or assignments please ask me!!!

Absences: The absence policy is outlined in a separate handout. Unexcused absences or a failure to follow the procedures outlined in that handout will result in a reduction of your grade. Penalties are stiff so pay close attention to the handout. Additionally, tardiness is rude to other students and to the professor and will result in a decreased grade.

Cell Phones: They must be turned off if brought into class or lab. They must be left at the front of the classroom in your book-bag during tests.