IS 363 – Living Ecologically **Fall 2010**

Time and Location: T R 9:30 to 10:45AM, Peck 2304

Instructors:
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Goals and Objectives of this Course:
1. To form in our classroom a community of inquiry
2. To see ourselves as citizens of local, national and global communities which share with plants, animals and other living things the common resources of the biosphere
3. To understand basic aspects of ecology
4. To understand the ways in which the environment can be affected by the activities of human societies

Texts:
G. Tyler Miller, *Sustaining the Earth: an Integrated Approach.* 7th edition
Daniel G. Bates, *Human Adaptive Strategies*: *Ecology Culture and Politics* 3rd edition
Coulson, J, D.H. Whitfield and A. Preston, *Keeping Things Whole: Readings in Environmental Science*

Ground Rules for this Course
1. Assignments:

		Percent of Final Grade
a.	Exam 1	15
b.	Exam 2	15
c.	Exam 3	15
d.	Final	20
e.	Team Presentation	20
f.	Presentation Paper	10
g.	Attendance	5
	Total	100

A= 90-100 pts
B= 80-89.9 pts
C= 70-79.9 pts
D = 60-60.9 pts
F < 60 pts

2. Make-up exams will be permitted only on the basis of illness and/or emergencies that can be verified. A student who finds it necessary to miss a scheduled exam must contact Dr. Brugam or Dr. Holt within 24 hours of the missed exam.
3. Students are expected to attend class. Attendance is 5% of the final grade. Your attendance grade will be pro-rated according to the number of lectures you are present. An attendance roster will be circulated during class. Exams will cover not only assigned readings, but also material from lectures, films, student presentation and class discussions.
4. Incompletes will not be given.
5. Students caught cheating on any assignment, plagiarizing on any assignment, or

falsifying attendance sheets will receive an F for the course and will be reported to the offices of the Dean of the College of Arts and Sciences and the Provost of the University.

Students with Disabilities:
Please notify either Dr. Brugam or Dr. Holt during the first week of class concerning any academic accommodations you will need if you have a documented disability and an ID CARD from Disability Support Services. If you must take an exam at DSS, *you must present a DSS Test Release Form to Dr. Holt during the class period **prior** to the exam.*

Student Presentations:
All class members will choose a topic for a presentation within the first 2 weeks of class. Each presentation group will contain 4 students. You must meet and work with the other students in your group in order to do this presentation. **A list of topics with schedule is included with this syllabus: please have your topic chosen by Sept. 2.**
The presentation will be given using PowerPoint and will be 12 minutes in length. Presenters will be expected to lead a class discussion on their topic, and each presentation should conclude with 3 questions for class consideration. The presentation must be made available to the instructors in electronic format so that it can be posted on Blackboard. Presentations are worth 20 points.
Each student will also turn in a typed three page paper on his or her part of the presentation topic with bibliography attached. "A" papers will have at least 5 sources, all of which should be published in print – course textbooks do not count towards your five sources. Papers with fewer than three sources published in print will receive an automatic F. Allowable search systems available through Lovejoy Library include Scopus (science literature), Newspaper Source (newspapers), and GreenFile (human impacts on the environment). These search systems are available on the Lovejoy Library website under "E-Resources A to Z" (see http://siue.libguides.com/az). If you need help with these search systems, see the science librarian's tutorial for biology students on how to search Library databases on the course Blackboard site (http://siue.libguides.com/biology). You must provide complete citations for your sources using a standard academic style such as MLA (http://en.wikipedia.org/wiki/The_MLA_Style_Manual) or the parenthetical reference style (http://en.wikipedia.org/wiki/Parenthetical_referencing). If you do not follow a consistent scholarly referencing style, points will be deducted from your paper. Please consult the SIUE Writing Center if you don't remember how to give a citation. On the day of the presentation, your paper must be submitted to us in **hard copy** and **also electronically through SafeAssign** on Blackboard. Our goal is to return the papers to you in 1 to 2 weeks. The paper is worth an additional 10 points.
Grades will be based on information content and quality of the presentation and paper; a sample evaluation sheet for each is attached to this syllabus.

Submitting a SafeAssignment:

1. Complete your assignment and save the file in an acceptable format as defined by your instructor and SafeAssign.

2. Navigate to the section of your Blackboard course where the SafeAssignment has been created by your instructor (i.e. Assignments, Course Materials, etc.)
3. Click the **>>View/Complete** link.
4. Once the SafeAssignment page opens (click on the image for a larger view), add **Comments** if necessary or required.
5. Click the **Browse** button in the File to Attach area to locate and select the file on your local or external drive.
6. Click the **Submit** button. If this is a final rather than draft version the paper will be submitted to the Institutional Database.

Information on how to submit to SafeAssign is found at:
http://www.siue.edu/its/bb/safeassign.shtml

Blackboard:
Blackboard is a web-based computer program that allows you to communicate with your instructors. It is located at www.blackboard.siue.edu. PowerPoints from faculty lectures and student presentations will be posted on Blackboard as downloadable PDF handouts. You will be able to download handouts of all lectures before class so that you can follow along with your instructors. Student presentations will be posted on Blackboard after they are given. Student grades will also be listed on Blackboard. The instructors will establish a moderated discussion board on Blackboard to encourage out of class discussions about the lectures and presentations.

24-Aug	Introduction to the course (Brugam & Holt)	Miller Ch. 1
26-Aug	Science and ecology (Brugam)	Miller Ch. 2
31-Aug	More about ecology (Brugam)	Miller Ch. 2
2-Sept	Anthropology and ecology (Holt)	Bates Ch. 1-2
7-Sept	Gathering and hunting (Holt) Student Presentation (SP): Why protect endangered species?	Bates Ch. 3
9-Sept	Horticulture (Holt) SP: What about endangered cultures?	Bates Ch. 4
14-Sept	Pastoralism (Holt) SP: Meat production and consumption	Bates Ch. 5
16-Sept	Agriculture (Holt) SP: The farm chemical hazard	Bates Ch. 6
21-Sept	**First Exam**	
23-Sept	Energy (Brugam) SP: Genetically modified organisms	Miller Ch. 10

28-Sept	Population (Brugam/Holt) SP: Alternative energy sources	Miller Ch. 4 Keeping Things Whole pp. 145-164
30-Sept	Biogeography of our region (Brugam) SP: Fuel efficiency standards for cars	
5-Oct	Problem chemicals (Brugam) SP: Coal mining in Illinois	Miller Ch. 11
7-Oct	Chemical contamination (Brugam) SP: Superfund	Miller Ch. 11
12-Oct	Video: Rachel Carson's Silent Spring	
14-Oct	Industrialization and urbanization (Holt) SP: Suburban sprawl	Bates Ch. 7
19-Oct	**Second Exam**	
21-Oct	Food production and hunger (Brugam/Holt) SP: Environmental racism	
26-Oct	Video: Affluenza	
28-Oct	Globalization (Holt) SP: Environmentalism in developing countries	Bates Ch. 8
2-Nov	Air pollution (Brugam) SP: Ozone pollution in St. Louis	Miller Ch. 12
4-Nov	Global warming (Brugam) SP: Ethanol as motor fuel	Miller Ch. 12
9-Nov	Water pollution (Brugam) SP: Oil spills	Miller Ch. 9
11-Nov	Video: My Father's Garden	
16-Nov	Cultural sustainability (Holt) and natural capital (Brugam) SP: Organic agriculture	
18-Nov	**Third Exam**	
23-Nov 25-Nov	Thanksgiving break Happy Thanksgiving!	
30-Nov	Solid Waste SP: Sustainable homes and communities	Miller 13
2-Dec	Progress and Collapse (Holt) SP: Voluntary simplicity	

7-Dec	Ecological economics (Dr. Robert Blain)	
9-Dec	Our future (Brugam/Holt)	Keeping Things Whole pp. 129-143

Final Exam: Wednesday Dec. 15 from 8:00 to 9:40 AM

Student Presentation Groups:

Group 1: Why protect Endangered Species? - Sept 7
The Endangered Species Act requires the listing of species that are in danger of extinction in the U.S. and protects these species. There is strong criticism of the Act. Should we protect endangered species? Why or why not?

Group 2: Why protect traditional cultures? – Sept 9
What is the future of "traditional" cultures, such as those of hunter-gatherers and horticulturalists? Can indigenous people maintain a subsistence-based economy in a market-based world? Do indigenous rights take priority over the "greater good" (typically economic interests) of the nation states in which indigenous groups exist? Consider solutions such as reservations and "environmental tourism." Are these solutions sustainable - environmentally, culturally, and economically?

Group 3: Meat production and consumption – Sept 14
The "meat market" today is international. Where does the meat we eat come from, and how is it raised? Are these methods of meat production good for the environment? Can traditional farmers/pastoralists compete in today's market? How does the amount of meat we eat in the U.S. compare to rates of meat consumption in other parts of the world? How do higher rates of meat consumption impact the environment and human health?

Group 4: The Farm Chemical Hazard – Sept 16
Farming is a hazardous occupation because of exposure to chemicals. What are the dangers to farmers, their families, and the rest of the population caused by farm chemicals? Consider chemicals commonly used in Illinois, such as atrazine and roundup. These chemicals are also arguably bad for the environment. What is the possible relationship between chemical fertilizers used in Illinois and the "dead zone" in the Gulf of Mexico?

Group 5: Genetically Modified Organisms – Sept 23
We can enhance production of many agricultural and forestry crops by rebuilding their genetics using a technique that is sometimes called "genetic engineering." Some people object to manipulation of the genetics of other organisms. What are the pros and cons of genetic manipulation? Do we now grow genetically modified crops in Illinois?

Group 6: Alternative Energy Sources - Sept 28
We could solve energy problems by using alternative sources of energy to supply electricity. Are any of the alternative energy sources feasible now? What would be the cost relative to other means of producing electricity? Are there hidden environmental costs that we do not think about now?

Group 7: Fuel Efficiency Requirements for Autos – Sept 30
We all agree that we would be better off if the nation used less oil. Oil is a finite resource which will be used up. The Federal government has proposed fuel efficiency standards for cars. What is the current status of these standards? What are Corporate Average Fuel Economy (CAFÉ) standards? Present the arguments for and against fuel economy standards. What is the latest word about CAFÉ standards?

Group 8: Coal Mining in Illinois – Oct 5
Strip mining (also called surface mining) for coal has had a variable history in Illinois. What is the current status of strip mining? What techniques are used to minimize environmental damage? What is the cost of these techniques? What about long wall mining? What is it and what are its environmental problems?

Group 9: The Superfund Act – Oct 7
The Superfund is a program that the U.S. government developed to clean up hazardous waste sites. What is the current status of the program? What are its successes and failures? Be sure to consider Times Beach, Missouri, as one case study.

Group 10: Suburban sprawl - Oct 14
Suburban sprawl destroys natural habitat and agricultural land at the same time that it erodes our cities. What is the history of suburban sprawl in the United States? What role did the automobile and oil industries play in this evolution? Discuss the pros and cons of suburbia. Are the suburbs environmentally sustainable?

Group 11: Environmental racism - Oct 21
The term "environmental racism" is used to refer to environmental policies which discriminate against people of color. An example would be putting a landfill next to a poor minority neighborhood rather than next to a wealthier white neighborhood. However, even in this example, it is clear that differential wealth, not just skin color, plays a role in such decisions. Discuss such policies not just within the United States, but also how our policies affect other parts of the world. Also discuss efforts to reform discriminatory policies.

Group 12: Environmentalism in developing countries – Oct 28
As the western world industrialized, pollution levels rose to heights never before seen in the world. In more recent decades, western nations have used some of the enormous wealth gained through industrialization to attempt to clean up and prevent pollution; the EPA is just one example. Now, nations like Mexico, China, and India are industrializing, and pollution is of course one result. *Should developing countries be held to environmental standards*, or should they be allowed to pursue wealth without environmental restrictions, as the United States, Canada, and European nations once did? *Please check with us if you're not sure what a developing country is.*

Group 13: Ozone pollution in St. Louis – Nov 2
Ozone is a significant air pollutant in St. Louis. What is it? What is the current status of control in St. Louis? How does that control impact everyone in our class? Be sure to have the latest ozone data for St. Louis. Has the situation in St. Louis improved? Please do *not* discuss ozone depletion in the stratosphere, which is a totally unrelated problem.

Group 14: Ethanol as Motor Fuel – Nov 4
There has been a suggestion that ethanol could be substituted for gasoline as motor fuel. Currently, that is not very economical. Most Illinois fuel is 10% ethanol. How good would ethanol be as a fuel? Would it really save oil? After all, oil is used to make fertilizer and to till the crop. Note that the University now has the Corn-to-Ethanol Pilot plant on campus to study ways to bring down the cost of ethanol production. Are there better sources of ethanol than corn? Check out articles in *Audubon* (August 2004 issue) and *National Geographic* (2008?). Some ecologists claim that fuel ethanol is catastrophic for the environment. Why do you think that might be true?

Group 15: Oil spills – Nov 9
The Gulf oil spill has gotten a lot of attention this summer. What are the impacts of this spill so far? What impacts are predicted for the future? This is not the first bad oil spill to hit the U.S. – what short and long term impacts resulted from the Exxon Valdez spill? This is not even the only bad oil spill in the U.S. this summer – what's happening with the oil spill in Michigan? Consider other bad oil spills around the world, such as the one in Australia's Great Barrier Reef last spring, or chronic oil spillage in the Amazon rain forest and Niger Delta. Is there really any safe and clean way to get oil out of the ground? Is there really any safe and clean way to transport oil?

Group 16: Organic agriculture – Nov 16
What is organic agriculture? Is it the future of farming? Consider both environmental and cultural sustainability as you think about this. Also be sure to compare both the costs and yields of organic agriculture vs. "conventional" agriculture.

Group 17: Sustainable Homes and Communities – Nov 30
"Green" construction is an important way to reduce humanity's ecological footprint. How can we change houses, house construction, and community organization to make our lives more sustainable?

Group 18: Voluntary simplicity – Dec 2
Voluntary simplicity might be defined as a lifestyle – living simply and within our means to preserve the environment, at the same time preserving our sanity and our souls. Discuss the history of the voluntary simplicity movement and the pros and cons of this lifestyle choice in the commercial world in which we live. Can we make a difference by reducing the materialism in our lives? Is voluntary simplicity the cure for "affluenza"? Can we raise children in the United States in voluntary simplicity, or does rampant commercialism make that impossible?

SAMPLE EVALUATION SHEET

IS 363 Presentation Evaluation

Presenter: _____
Topic: _____

	No…..……Somewhat ……Yes…		
Was presentation well organized and clear?	0	2.5	5
Did presenter appear knowledgeable about topic?	0	2.5	5
Did presenter answer questions satisfactorily?	0	2.5	5
Did visual aids complement the presentation?	0	2.5	5

Comments/suggestions:_____
_____
_____
_____

IS 363 Paper Evaluation

Student: _____
Topic: _____

	No…….....Yes	
Was the paper well organized, clear, and grammatical?	0	2.5
Was the information correct?	0	2.5
Did you have at least 5 sources which were published in print?	0	2.5
Were citations complete and in standard academic style?	0	2.5

Comments/suggestions:_____
_____
_____
_____