

BSC 1050 – Biology and Environment - Fall 2014



Instructor: Dr. John F. Weishampel (pronounced "WHY - sample?"), Professor of Biology
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Office Hours: It will be best to e-mail or call me to set a formal appointment. I am usually available during official drop-in office hours (i.e., Mon, Wed, & Fri 9:30 - 10:30 AM) to answer any questions. If these times do not work for you, we can try to arrange another time.

Class Web Site: Accessible through the <http://webcourses.ucf.edu> or through your <http://my.ucf.edu> account. Lecture notes, review questions, midterm answers, grades, relevant internet sites and additional readings are posted at this site. Usually most of the PowerPoint slides will be available the day (sometimes night) before class. If this is your first time taking a web-assisted course go to: <http://learn.ucf.edu/> to help you logon and familiarize you with the system.

Lecture Meeting Times: Mondays, Wednesdays, and Fridays, 8:30 - 9:20 PM Business Administration BA Room 119. Audio recording of lectures is permitted.

Course Description: The course is an introduction to the environmental sciences that stresses a scientific approach toward understanding the nature and scope of contemporary problems in relation to natural systems. It outlines the interactions of biological, physical, chemical, geological, and sociological principles that define natural and anthropogenic ecological change.

Course Purpose: To investigate environmental science and environmental systems in the context of real places, real people, real problems and real data.

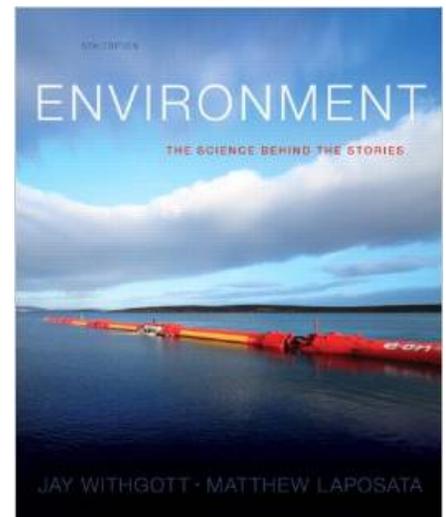
Learning Objectives:

Upon successful completion of this course students will be able to:

1. Describe the structure and function of significant environmental systems.
2. Use scientific reasoning to identify and understand environmental problems
3. Critically evaluate arguments regarding environmental issues.
4. See the impact your choices and actions have on the environment.
5. Propose and evaluate potential solutions to environmental problems.

Text: The text is recommended. If you want to follow topics along in a more traditional manner, you should obtain, i.e., buy, rent, borrow, share, an eBook or hardcopy version of the 2014 textbook: *Environment: The Science Behind the Stories* (5th Ed) by J. Withgott & M. Laposata (Pearson). There will hopefully be a copy of this edition on 2-hour library reserve. The previous editions are pretty consistent and much cheaper.

Additional readings, activities, videos, etc. will be posted on-line at the class web site. Some of these will also be resources for exam questions.



Lecture Schedule *

	<u>Date</u>	<u>Lecture Topic</u>	<u>Associated Textbook Reading</u>
1	Mon. 8/18	Course Introduction	
<u>Setting the Stage</u>			
2	Wed. 8/20	Tragedy of the Commons	Chpt 1
3	Fri. 8/22	Easter Island	Chpt 1
4	Mon. 8/25	Your Ecological Footprint	Chpt 1
<u>Broad Components of Environmental Science</u>			
5	Wed. 8/27	How Science Works	Chpt 1
6	Fri. 8/29	History of Environmental Science	Chpt 6
	Mon. 9/1	Labor Day – NO CLASS	
7	Wed. 9/3	Environmental Ethics	Chpt 6
8	Fri. 9/5	Environmental Economics	Chpt 6
9	Mon. 9/8	Environmental Policy	Chpt 7
	Wed. 9/10	Midterm 1	
<u>The Science of the Environment</u>			
10	Fri. 9/12	Chemistry	Chpt 2
11	Mon. 9/15	Energy	Chpt 2
12	Wed. 9/17	Life	Chpt 2
13	Fri. 9/19	Evolution/Speciation	Chpt 3
14	Mon. 9/22	Populations	Chpt 3
15 [#]	Wed. 9/24	Communities	Chpt 4
	Fri. 9/26	NO CLASS – Instructor on NSF Panel	
16	Mon. 9/29	Systems Ecology	Chpt 5
17	Wed. 10/1	Biogeochemistry	Chpt 5
	Fri. 10/1	Midterm 2	
<u>Environmental Problems</u>			
18	Mon. 10/6	Human Population Growth I	Chpt 8
19	Wed. 10/8	Human Population Growth II	Chpt 8

20	Fri. 10/10	Agriculture I	Chpt 9
21	Mon. 10/13	Agriculture II	Chpt 10
22	Wed. 10/15	Ecotoxicology	Chpt 14
23	Fri. 10/17	Atmospheric Pollution	Chpt 17
24	Mon. 10/20	Global Climate Change I	Chpt 18
25	Wed. 10/22	Global Climate Change II	Chpt 18
	Fri. 10/22	Midterm 3	
<u>Environmental Systems and Dynamics</u>			
26	Mon. 10/27	Biodiversity	Chpt 11
27	Wed. 10/29	Biological Conservation	Chpt 11
	Fri. 10/31	NO CLASS - Instructor on Fulbright Panel	
28	Mon. 11/3	Ocean Systems	Chpt 16
29	Wed. 11/5	Freshwater Systems	Chpt 15
30	Fri. 11/7	Freshwater and Marine Conservation	Chpt 15
31	Mon. 11/10	Terrestrial Systems/Land Use	Chpts 12 & 23
32	Wed. 11/12	Urbanization	Chpt 13
33	Fri. 11/14	Environmental Health	Chpt 14
	Mon. 11/17	Midterm 4	
<u>Moving Towards Solutions</u>			
34	Wed. 11/19	Waste Management	Chpt 22
35	Fri. 11/21	Non-Renewable Energy	Chpts 19, 20, & 23
36	Mon. 11/24	Renewable Energy	Chpt 21
37	Wed. 11/26	Consumerism	
	Fri. 11/28	Thanksgiving Break – NO CLASS	
38	Mon. 12/1	Sustainability / Review	Chpt 24
	Wed. 12/3 7:00 – 9:50 AM	FINAL EXAM (BA 119)	

*The dates of these topics and exams serve as a guideline and are subject to change.

#Instructor away, an asynchronous video lecture will be provided on-line (no need to come to BA 119).

Student Responsibilities:

Etiquette - Students should show proper classroom etiquette. Students should show up to class on time. If arriving reasonably late (<5 minutes), students should enter the lecture room quietly and sit in the back. If arriving unreasonably late (>5 minutes), students should not enter the room. Students who need to leave the lecture room early should not come that day. Students should not disrupt other students (or the instructor) in class by talking unless instructed to do so by the instructor.

Readings - In a very rough manner, textbook readings are designed to coincide with and supplement the lecture component of the course. The order of reading assignments are listed above. The nature of the course is somewhat non-linear so certain concepts and chapters are revisited with a different emphasis. In addition to textbook readings there will be additional readings, activities, that can be accessed through the website.

Clickers - You **will** need to bring your **i>clicker 2** (personal response system) each day (for both lectures and exams). Participation grades will reflect clicker responses. Clickers will be used for in-class quizzes, opinion polls, on-the-fly knowledge assessments, attendance. Forgetting your clicker will result in a 0 for participation for the day (or worse 0 for a midterm). Beginning Mon. 8/25, you will have two participation graces. So if: your batteries run low, you forgot your clicker, your car did not start, you are sick, etc. a couple of times, there is no need to contact me.

Midterms and Final Exam - There will be four in-class lecture midterms, covering material that roughly occurs at even intervals of the course. The lowest midterm grade will be dropped. Thus, if you are unable to make one due to whatever, don't sweat it. But if you have to miss two, that could cause trouble. A make-up will require a doctor's or other exceptional excuse. The final exam will be more comprehensive (with an emphasis on the material covered after the last midterm) and mandatory. These will be **i>clicker 2** tests. Though primarily multiple choice, exam questions typically involve more than a regurgitation of lecture notes or definitions. Questions often require analyses of new (but related) information or the synthesis of ideas. These are derived from lectures, readings, and information on the class website. Lecture material will be emphasized, followed by web distributed material then textbook readings. Exams are designed to make you think and function as additional learning experiences.

Beginning of Semester Activity - Faculty are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the **NEP Survey I** which is available on Webcourses by the end of the first week of classes or as soon as possible after adding the course, but no later than August 18th. Failure to do so may result in a delay in the disbursement of your financial aid.

Performance Evaluation:

Class Participation = 10%

4 Midterms (3 x 22.5%, lowest grade is dropped) = 67.5%

Final Exam = 22.5%

Total = 100%

Your grade will be based on the following scale: 90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; 0-60 = F

As always, UCF Students are expected to follow the **Golden Rule**: <http://www.goldenrule.sdes.ucf.edu/>
and

THE UCF CREED

Integrity, scholarship, community, creativity, and excellence are the core values that guide our conduct, performance, and decisions.

Integrity

I will practice and defend academic and personal honesty.

Scholarship

I will cherish and honor learning as a fundamental purpose of my membership in the UCF community.

Community

I will promote an open and supportive campus environment by respecting the rights and contributions of every individual.

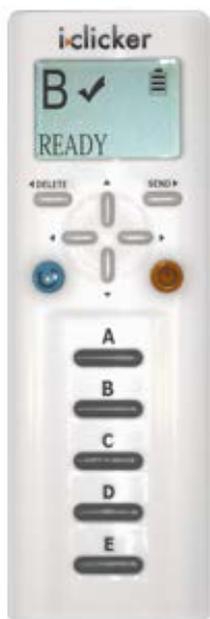
Creativity

I will use my talents to enrich the human experience.

Excellence

I will strive toward the highest standards of performance in any endeavor I undertake.

Your i>clicker 2



If your clicker does not look like this, **you have the wrong clicker!**

You can rent this, buy this, share this (with someone who is not taking the class).

As we will be using it for your midterms and final exam, this is the only option. It is the only i>clicker model that permits self-paced testing.

Registering your i>clicker 2 In order to link your serial number (which is on the back of the i>clicker) to your name and student ID, you need to register your clicker for this class. This should be done via the i>clicker Webcourses link. It does not cost anything – Yay!