



### Schedule for ABIO 390, Fall 2008

Date		Chapter
Aug. 22	Introduction	1
Aug. 25	Ecosystems and Energy	3
Aug. 27	Sustainability and Biogeochemical Cycles	3
Aug. 29	Succession and Biomes	5 & 7
Sep. 1	<b>Holiday</b>	
Sep. 3	Species Interactions	7
Sep. 5	Invasive Species and Extinctions	11
Sep. 8	Invasive Species and Extinctions	11
Sep. 10	<b>Exam 1</b>	
Sep. 12	Aquatic Ecosystems	6
Sep. 15	Aquatic Ecosystems	6 & 14
Sep. 17	Water Resources	6 & 14
Sep. 19	Water Quality	21
Sep. 22	Water Quality	21
Sep. 24	Population Dynamics	8
Sep. 26	Human Populations and Resource Use	9
Sep. 29	Urbanization	23
Oct. 1	<b>Exam 2</b>	
Oct. 3	Toxicology	18
Oct. 6	Toxicology and Risk Assessment	18
Oct. 8	Atmosphere and Ozone	18
Oct. 10	<b>Fall Break</b>	
Oct. 13	Local Air Pollution	19
Oct. 15	Local Air Pollution and Indoor Air Pollutants	19
Oct. 17	Global Warming	20
Oct. 20	Non-renewable Energy Resources	16
Oct. 22	Nuclear Power	16
Oct. 24	Radiation and Nuclear Weapons Legacy	in-class material
Oct. 27	<b>Exam 3</b>	
Oct. 29	Toxic Metals: Lead and Mercury	22 (pp.540-543)
Oct. 31	Toxic Metals: Cadmium and Arsenic	in-class material
Nov. 3	Petroleum Hydrocarbons and Asbestos	in-class material
Nov. 5	Endocrine Disruption and PCBs	18 (pp.426-428)
Nov. 7	Endocrine Disruption and PCBs	18 (pp.426-428)
Nov. 10	Dioxin and Pharmaceuticals & Personal Care Products	in-class material
Nov. 12	Pesticides	13
Nov. 14	Genetically Modified Crops	13
Nov. 17	<b>Exam 4</b>	
Nov. 19	No class today	
Nov. 21	Food Production	13
Nov. 24	Food-borne Illness	in-class material
Nov. 26	<b>Thanksgiving Holiday</b>	
Nov. 28	<b>Thanksgiving Holiday</b>	
Dec. 1	Infectious Disease and the Environment	18
Dec. 3	Infectious Disease and the Environment	18
Dec. 5	Solid and Hazardous Waste	22
	<b>Comprehensive Final Exam: Dec. 10 at 8:00 am</b>	

**CHANGES:** The instructor reserves the right to make changes in the lecture or laboratory schedule, the number of quizzes and exams given, and the contents of each exam as deemed necessary.

**RESEARCH AND ACTIVISM PROJECT:** Students are to identify one environmental problem with a direct impact on them, and then take action. This problem could be an on-campus problem, a local issue, or even a national / international issue. **On-campus and local issues are preferred.** Students are to submit a brief research paper that provides background on the issue and explains how it impacts humans. This paper should be 1 to 2 typed pages (1.5-spaced) and should include at least 3 references from periodicals and /or published books. **Website references are not acceptable.** The “action” portion of this project will include a letter to either the editor of the *Pacer Times* (for on-campus problems), the editor of the *Aiken Standard* or *Augusta Chronicle* (for local problems), or a letter to a legislator or other political leader. Once letters are graded and edited by the instructor, they will be returned to the student for revision and mailing (actual mailing of the letter will be the student’s choice). Students are strongly encouraged to explore ideas with the instructor and to bring up questions regarding this project during class. Students are also cautioned to be on their guard against plagiarism when preparing this paper and letter. The final version should be submitted in hardcopy and electronic format no later than November 24 at 5:00 pm. Ten points will be deducted for each day after November 24.

**ELECTRONIC DEVICES:** Plan to be out of touch and to have your cell phone stored out of sight during lecture and lab time. This includes leaving the room to answer silent rings or using the phone for text messages.

**COMPUTER USE AND EMAIL:** All laboratory reports will require the use of a computer. You must be able to log on to the USCA computer system in order to accomplish these laboratory exercises. If you do not know how to sign on to the USCA computer system, you should contact the CSD HELP desk as soon as possible. In addition, lecture outlines and any additional materials (handouts, extra figures, bonus quizzes, etc.) will be provided for students on Blackboard. Students are urged to print necessary materials prior to class time. Blackboard can be accessed through VIP (<http://vip.sc.edu>). Refer to the Blackboard help menus for information on accessing and using Blackboard. Blackboard login difficulties should be brought to the attention of USC Columbia Computer Services.

All official email communications, including class announcements, are made to USCA email accounts. Students should check their USCA email account on a regular basis and use this account for communication with the instructor. In order to protect the privacy of the student, the instructor will not reply to emails sent from non-USCA accounts (e.g., Hotmail, Yahoo, etc.).

**DISABILITY STATEMENT:** If you have a physical, psychological, and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation.

## Lab Schedule for ABIO 390, Fall 2008

Date	Topic
Aug. 26	The State of the Planet and Your Ecological Footprint
Sept. 2	Using Indicator Organisms to Determine Pollutant Effects (thermal)
Sept. 9	Using Indicator Organisms to Determine Pollutant Effects (pharmaceutical)
Sept. 16	Using Statistics to Analyze Data
Sept. 23	Tour Horse Creek Wastewater Treatment Facility
Sept 30	Risk Assessment and/or Water Quality
Oct. 7	Fall break
Oct. 14	Risk Assessment and/or Water Quality Reports and Prep for Oral Reports
Oct. 21	Oral Reports on Alternative Energies*
Oct. 28	Oral Debates on Election Issues**
Nov. 4	Election Day
Nov. 11	Air Pollution from Your Car
Nov. 18	Identification of Indoor Air Pollutants on USCA
Nov. 25	Thanksgiving
Dec. 2	Final Lab Reports

**Laboratory Grading:** The final lab grade makes up 33% of the total for the course and will be based on the following:

7 Laboratory Exercises and Reports	225
Oral presentation / debate	80
<u>Audience participation during presentations and debates</u>	<u>20</u>
	325 total pts. available

The laboratory periods of October 21 and 28 are reserved for student oral presentations. Each student will work with a partner and will be assigned a topic to present during one of the following dates listed below. Research on the project is expected to be from the library and online. Wikipedia is not acceptable as a resource, but links found in Wikipedia might be.

**\*October 21. Oral Reports on Energy Technology.** This session will be dedicated to reports on alternative energy technologies and on the energy policies of the main presidential candidates. Each pair of students will present a 10 minute PowerPoint presentation. Both presenters should contribute to the oral presentation, either by presenting the material or by answering questions from other students. Students in the audience are all expected to participate by asking questions of the presenters. Everyone - presenters and audience members - will receive a grade. An electronic copy of the PowerPoint file should be submitted to instructor via email on the day of the presentation. The last slide should include a list of references.

**\*\*October 28. Oral Debates on Environmental Issues.** This session will feature four topics, each with two viewpoints. Students will present these topics in pairs, but with each presenting a different viewpoint (Pro or Con). This should include a PowerPoint presentation of at least 10 minutes per team. Each team member should be able to explain their position and then be able to defend it if challenged or questioned by members of the audience. All students in the audience are expected to participate, either by adding their own opinion or by asking questions. For this assignment, remember that it is not always easy to defend an opposing viewpoint, but an important part of critical thinking is to understand that the opposing viewpoint often has valid components too. Everyone - presenters and audience members - will receive a grade. An electronic copy of the PowerPoint presentation should be submitted to the instructor via email. An electronic copy of the PowerPoint file should be submitted to instructor via email on the day of the presentation. The last slide should include a list of references.