Senior Seminar (Ecol 4950)
Emerging environmental issues and ecological perspectives
Syllabus and course guidelines Draft 12/19/14

Instructors:

- Dr. Amy Rosemond (rosemond@uga.edu)
- Dr. Craig Osenberg (Osenberg@uga.edu)

Course objectives:

- Promote discussion about the roles of ecological approaches, theory and information in development of solutions to environmental problems.
- Develop discussion and discussion-leading skills.
- Develop knowledge base of current environmental problems.
- Make connections between environmental problems, ecological research and research needs and solutions.
- Apply skills and knowledge developed as an ecology major.
- Stimulate ideas for future work and involvement in ecological and environmental fields.

Proposed format:

- 10 weeks, 75 min class meeting (3:30-4:45 pm W). Each week focuses on an environmental topic with assigned reading (usually 1 paper/week). Prior to class, all students will critically read the assigned reading. Discussion leaders (a primary and a support discussant) will meet with instructors prior to each class to plan their strategy. Other students will write a 'reading response' to help them prepare for class. During class, discussion leaders will give a synopsis of the issues, both with respect to the relevant ecological theory and the societal issue, and then facilitate a group discussion around these subjects. Other students will come to class with prepared points for discussion. Each discussion will end with a synthesis by the discussion leaders identifying future ecological research needs as well as actions that could be recommended based on current ecological knowledge. Each student will co-lead 2 discussions during the semester (as either the lead or supporting discussion leader).

Week	*Topic*	*Reading*	*Primary discussion leader*	*Supporting discussant*
Week 1 (Jan. 7)	Philosophical approaches to environmental problems and ecology	Levin 2010 + Capra and Luisi (2014): Intro (pp 1-18) & Ch 17(pp 362-393)	Rosemond	Osenberg
Week 2 (Jan. 14)	Ocean acidification	Kroeker et al (2010)	Osenberg	NA
Week 3 (Jan. 21)	Emerging pathogens (Ebola)	TBD: Drake et al (2015) or Pigott et al. (2014), or Lewnard et al. (2014)	TBA	TBA
Week 4 (Jan. 28)	The phosphorus challenge	Cordell and White (2011)	TBA	TBA
Week 5 (Feb. 4)	Loss of predators	Estes et al. (2011)	TBA	TBA

Week 6 (Feb. 11)	Marine conservation	Edgar et al. (2014)	TBA	TBA
Week 7 (Feb. 18)	Energy and water	Gleick & Palaniappan (2010) + Ch. 1 Fishman (2011)	TBA	TBA
Week 8 (Feb. 25)	GMOs (Bt and monarchs)	Losey et al. (1999) & Scriber (2001); and one of the following 6 follow-up papers in PNAS (Zangerl, Stanley-Horn, Sears, Pleasants, Oberhauser, Hellmich)	TBA	TBA
Week 9 (Mar. 4)	Water quality / eutrophication	Smith and Schindler (2009)	TBA	TBA
Spring Break (Mar. 11)	NA	NA	--	--
Week 10 (Mar. 18)	Tipping points	Scheffer et al. (2012)	TBA	TBA

Rosemond away: Jan 21
Osenberg away: Feb 18, Mar 4

'Reading responses' – this is a critical part of class! You are asked to prepare a 'reading response' to be turned in each class meeting. You are responsible for reading the assigned paper(s) before class and providing a typed short assessment of the paper with the following information, which is your 'reading response'. Reading responses should consist of two paragraphs with additional bulleted discussion points:

1. Paragraph 1. Briefly describe the background/important questions being addressed in the paper. What is the overall context/problem? What hypotheses were tested or concepts that were developed? What approach(es) was/were used? What conclusions were reached?
2. Paragraph 2. What did you learn? What new insights were provided? What approaches would have been more effective?
3. Bulleted: What questions and ideas did the reading stimulate? What are the critical issues that need to be tackled next on this subject? What remains unresolved? What would you include in a research agenda to resolve some issues? What are the consequences of not resolving this issue/question?

Please bring a hard copy of your reading response to class to refer to in discussion. Maintain electronic copies of your responses for your records. These will be read, graded (0-10 pts) and commented on and returned to you.

Grading:

Discussion lead: 10%
Discussion co-lead: 10%
Reading responses: 70%
Overall class participation: 10%

Attendance, access to materials and office hours

Class: Meets in Ecology room 117 (Seminar room) in the Ecology Building on Wednesdays 3:30-4:45 pm (January 7-March 18). Attendance to all classes is mandatory and will only be excused under extreme circumstances (e.g., illness with written documentation).

Readings: PDFs of assigned papers/book chapters are posted on e Learning Commons (eLC).

Office hours: By appointment. Emails will be responded to within 24 hours.

Academic Honesty

UGA's Honor Code:
"I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at http://ovpi.uga.edu/academic-honesty-at-uga Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Most relevant for this course is that all your assignments must be written in your own words. Plagiarism is a very serious violation.