

ECOL 4950: SENIOR SEMINAR (1 h credit)
Fall 2009 Syllabus

Seminar: Mondays, 3:35 – 4:25 p.m. 117 Ecology Bldg.
Instructors: Dr. Jacqueline E. Mohan (Office: 708 BioSci; jmohan@uga.edu)
Dr. Richard Shefferson (Office: 364 BioSci; dormancy@uga.edu)

Course Objective

To explore specific ecological issues relevant to today’s society, and to evaluate and critique current scientific thought and effort, as well as media’s coverage of scientific topics.

In this course students will focus on:

- (1) Formulating informed opinions about ecological issues relevant to society and how such issues are treated in the scientific literature and popular media, and
- (2) Developing oral communication and presentation skills.

Grading Policy

Final grades will be composed of the following elements:

- 35% class participation (discussion of assigned readings)
- 30% class oral presentations (journal articles you’ve selected)
- 30% your own final presentation
- 5% your review of other students’ final presentations

Grade bands

A	at or above 93.4%	C+	77.7 – 79.9%
A-	90 - 93.3%	C	73.4 – 77.6%
B+	87.7 - 89.9%	C-	70 – 73.3%
B	83.4 – 87.6%	D	60 – 69.9%
B-	80 – 83.3%	F	less than 60%

Late assignment policy

5% from final grade for each piece of work

Missed class policy

Unless permission is obtained in advance and/or appropriate paperwork received (e.g., doctor’s note), 10% from final grade for every missed class beyond one.

Office hours & contact policy

Office hours by appointment only. The primary means of out-of-class contact should be *via* email (jmohan@uga.edu and dormancy@uga.edu ; please put “ECOL 4950” in the subject heading).

Oral presentations – Critiques of recently-published (~2006-2009) scientific journal articles

Oral presentations will consist of critiques of recent scientific journal articles that have been self-selected by students. Students should select articles that sound interesting to them (*i.e.*, the title sounds relevant, the authors are thought to be really good scientists; the topic sounds cool, etc.). After reading the article, students should present their analyses of the paper based on:

- the **OBJECTIVES** of the work,
- the **GENERAL APPROACH**,
- **METHODS** (did they go about the research in a reasonable way?),
- **DATA ANALYSIS & INTERPRETATION** (what did you think of the analyses? were the interpretations sensible?), and
- **OVERALL QUALITY** of the work (including clarity of the writing).

Oral presentations are not intended to be formal PowerPoint productions. Rather, students remain seated while they explain & critique the scientific article they selected. First, present the title and the authors and what journal & volume the article appeared in. Then, explain what the overall goals of the paper were and state any specific objectives. Next, explain how the research was done, how the data were analyzed (this may be brief or longer, depending on the work), and what interpretations were drawn from the results. Along the way, present any positive or negative opinions you have about the work, particularly regarding the methods, analyses, and interpretations. Do you agree with the final conclusions of the paper?

*Note: This will likely form one of the most efficient ways to spread ecological knowledge among the group. I will certainly be taking notes on each of the papers, and I recommend that you do as well. Perhaps your classmates found a work that you totally want to read yourself? It is also very appropriate to ask Presenters questions about the paper (and Presenters, it's OK if you don't know all the answers – this is a shared learning experience, not an exam).

Final presentations

Final presentations are due by 12 noon on **Nov. 16, 2009**. The topic for each presentation will be agreed upon by Drs. Mohan and Shefferson and the student (see the class schedule). Final presentations will consist of an individual, PowerPoint-based presentation. Each student will have 8 minutes to present and 2 minutes to answer questions. Presentations that exceed the allotted time may be penalized. Presentations should be uploaded on the Ecology Seminar Room computer by noon Nov. 16.

For your final project, chose an ecological topic you find exciting – it may be an extension of a topic covered in class, or an issue we've not yet discussed such as infectious diseases, environmental equity, extinction, impacts of drought on ecology and agriculture, etc. Find and read approximately 3-6 good, preferably recent (2006-2009), papers on this topic. Present to the class the problem, question, or issue; a synapses of each paper including the merits & deficits of each; and your own conclusions, ideas, and opinions.

Official University Policy

The course syllabus is a general plan for the course; deviations announced to the class by the instructors may be necessary.

All academic work must meet the standards contained in *A Culture of Honesty*. Students are responsible for informing themselves about those standards before performing any academic work.

Course Schedule

Date	Class	Topic	Assignments
Aug. 17	1	Introduction – Experience, Expectations, 5-Year Plan Class discussion: The importance of peer-reviewed literature in science	a) Discussion & photo-op b) Read Bush and Silman 2007 AND one of the articles they cite in the paper as a reason to investigate Amazonian land use history for the Aug. 24 class
Aug. 24	2	Class discussion: Amazonia – Forest Pristine or Old Agricultural Fields?	a) Read Nach 2007, Tilman et al. 2006, and Laurance 2007 for Aug. 31
Aug. 31	3	Class discussion: The Good, the Bad, and the Ugly Regarding Biofuels	a) Read Mohan <i>et al.</i> 2006, Schnitzer <i>et al.</i> 2008, Mohan <i>et al.</i> 2008 for Sept. 14 class
Sept. 7		LABOR DAY! NO CLASS	Think of a title for your Final Presentation <i>due Sept. 14</i>
Sept. 14	4	Class discussion: How Useful are Controlled experiments in ecology?	Turn in: Proposed title for Final Project
Sept. 21	5	FIELD TRIP TO WHITEHALL FOREST CLIMATE WARMING EXPERIMENT	a) Read Invasive Species papers, TBA for Sept. 28 class b) Project: compose a 200 word summary of your Final Project due Sept. 28
Sept. 28	6	Class Presentations: Recent scientific journal articles	a) Find a recent (published 2006-2008) scientific journal article to critically present Oct. 5
Oct. 5 (Mohan gone)	7	Class discussion: Invasive Species	a) Read Global & National chapters of U.S. Climate Change Science Report (2009) for Oct. 12 , available online at: http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf (pages 13 and 27). Whitehouse Press Release (June 2009) video available at: http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts .
Oct. 12	8	COLUMBUS DAY Class discussion: Climate Change – Global and National Projections	a) Read over recent Letters and Opinion pieces in Athens Banner-Herald (will be e-mailed to you) and the Southeast chapter of the U.S. Climate Change report (page 111)
Oct. 19	9	Class discussion: Climate Change – Focus on the Southeastern U.S. and watch video	a) Find a recent (published 2006-09) scientific journal article to critically present Nov. 2
Oct. 26		NO CLASS – work on Final Presentations	
Nov. 2	10	Class Presentations: Recent scientific journal articles	a) Readings for Nov. 9 TBA
Nov. 9	11	Class Discussion: Evolution and Climate Change	a) <i>Prepare Final Presentations due Nov. 16</i>
Nov. 16	12	Final Presentations DUE BY 12 p.m. TODAY!	<i>Review presentations</i>
Nov. 23		THANKSGIVING BREAK – NO CLASS	<i>no assignments</i>
Nov. 30	13	Final Presentations	<i>Review presentations</i>
Dec. 7	14	Final Presentations, Course wrap-up	<i>Review presentations</i>