

# Bio 301M: Ecology, Evolution, and Society (Spring 2009)

MWF 9-10am in PAR 201

**Prof: Dr. Stuart Reichler**

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Th 9-10am, F 10-11am, or by appt.

<b>Date</b>	<b>Class Subject</b>	<b>Relevant Textbook Chapter(s)</b>
Jan 21	Introduction and Philosophy of Science	1
23	Strong Inference	(article on webpage)
26, 28, 30, Feb 2, 4, 6	Genes and Evolution	3, 4, 7, 8, 11-18, 24-27
9, 11	Nature and Nurture	51
<b>Feb 13</b>	<b>Exam 1</b>	
16, 18	Nature and Nurture	51
20, 23, 25, 27, Mar 2, 4	Ecology	50-55
<b>Mar 6</b>	<b>Exam 2</b>	
9, 11, 13	Ecology	50-55
<i>Mar 16-20</i>	<i>Spring Break</i>	
23, 25, 27, 30, Apr 1, 3, 6	Environmentalism	50-55
<b>April 8</b>	<b>Exam 3</b>	
10, 13, 15, 17, 20, 22, 24, 27, 29, May 1, 4	Environmentalism	50-55
<b>May 6</b>	<b>Exam 4</b>	
May 8	Review for Final Exam (last day of class)	
<b>May 19, 9am-noon</b>	<b>Final Exam</b>	

**2/16** is the last day to drop w/o academic penalty, and **3/30** is the last day to drop with a Q.

While a very broad outline of topics is presented above, I will define more specific lecture topics based on our progress. We will not cover everything in every textbook chapter related to these topics. You can look at the related chapters to get a preview of the broad topics, and more specific readings will be posted on the class webpage a few days before each lecture.

The class **webpage** is: [www.bio.utexas.edu/courses/stuart/class.html](http://www.bio.utexas.edu/courses/stuart/class.html)

**Course Description:** Important and life altering decisions about biology and the environment (global warming, wilderness protection, overpopulation, genetically altered organisms, etc) are being and will be made. Informed and rational decisions can only be made with an understanding of the underlying biological principles. I hope this class will help provide you with the necessary information.

Instead of only looking at generalized information in a textbook, we will learn about contemporary topics by studying journal articles. I hope this will lead to a dynamic and useful learning experience. The drawback is that there will not be an easy source of information outside of class.

**Lecture:** MWF 9-10am in PAR 201. Most of the test material will come from information presented in lecture and the articles we study. Instead of asking you to regurgitate what we look at in lecture, I want you to be able to use what you are learning to come up with new information. I recommend that you take good notes and/or record the lectures. The easiest way to learn and perform well in my class is to attend the lectures and discussion sessions. A few days before each lecture, I will post on the class webpage relevant textbook sections and/or articles that we will be covering.

**Discussion Sessions:** The discussion sessions serve as an opportunity to review the information presented in class and to ask questions in a small class setting. At each discussion session there will be a short quiz that will allow you to test your mastery of the material prior to taking the exams. Discussions are not mandatory, but students who attend and participate in discussion sessions will be awarded up to 2 points to their final course grade. You may attend whichever discussion session per week that best suits your schedule. The discussion times are:

M 12-1pm in ECJ 1.214  
W 12-1pm in ECJ 1.214

Discussions will start 1/26. There will not be discussions on: 2/16-18, 3/9-11, and 5/6.

**Grading, Exams, and Homework:** I find that much of the time grades discourage learning. I have designed the assignments in this class to encourage you to learn and participate in the class. I hope that the assignments will serve to help you learn and provide useful feedback on your progress.

The semester will be graded on a maximum of 100 points earned from the exams with up to 6 bonus points added to your exam average.

There will be five exams, four mid-terms and a cumulative final. The 50 minute mid-term exams will be during class on 2/13, 3/6, 4/8, and 5/6. Each mid-term exam will include only the information presented since the previous exam. The final will be cumulative and is optional. If you take the final exam, this grade will replace a previous exam grade. If you miss an exam, contact Stuart as soon as possible. Each test will be equally weighted, and therefore worth 25% of your final grade.

**\*The exams will be short answer and essay.** There will be no multiple-choice questions.\*

My teaching and testing style emphasizes the ability to understand and use the information presented in class; therefore, at each exam you will be allowed to bring **ONE** 8.5 X 11 inch sheet of paper with whatever information you want written on it. In this way I want to minimize your dependence on memorization and encourage you to think critically about biology. See the webpage for sample test questions from previous semesters and answer keys after this semester exams have been returned.

Bonus points can be received for attending discussion sections, up to 2 points. Also, two bonus assignments consisting of short papers will be posted on the class webpage during the semester. Each bonus assignment can be worth up to 2 points. The bonus assignments will be posted on the class website. You can earn up to 6 bonus points that will be added to your overall course grade.

**Textbook:** The textbook is not required. Questions on the exams will be based on material from lecture. Lectures will use information from "Biological Science" 3<sup>rd</sup> ed. ©2008 by Freeman and supplement it with articles from current scientific journals. I will post my lecture slides on the webpage after class. Handouts and links to articles will be available on the webpage: [www.bio.utexas.edu/courses/stuart/class.html](http://www.bio.utexas.edu/courses/stuart/class.html).