

BIOL 375 Conservation Biology
WF 10-11:25am

FALL 2009
Prereq. R120:101&102

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Office Hours: MW 1:30-2:30

Introduction and Syllabus

Conservation Biology is a relatively new discipline that seeks to develop the scientific and technical means for the protection, maintenance, and restoration of life on this planet - its species as well as its ecological and evolutionary processes. In order to be successful, conservation scientists must investigate the unique biotic and abiotic needs of individual species, the mechanisms that structure ecological communities and ecosystems as well as the resistance and resiliency of species and communities to different kinds of disturbance. In addition to understanding the underlying ecology of species, communities and ecosystems, conservation scientists must help inform policy makers regarding which species and ecosystems are the most valuable and deserving of protection. In addition, they must prescribe how best to conserve and monitor these areas within the context of their ecology, specific threats and economic or political limitations. Needless to say, this is a tall order considering action must be taken despite limited and imperfect information.

This course will give students an overview of this emerging discipline including the scientific methods employed, the theory behind conservation techniques and strategies as well as the complexities involved in attempts to influence and implement conservation oriented policies. In addition to lectures, students will be expected to participate in discussions on various controversial topics throughout the semester. Outside readings for these discussions will be provided and each student will get a chance to lead a discussion on a topic of their choice.

GRADES

1 Midterm Exam (100 points)
1 Final Exam (100 points)
3 Quizzes (25 points each)
1 Discussion (25 points)
Class participation +/- 5%

TEXT

1. Primack, Richard B. 2006. *Essentials of Conservation Biology* (4th Edition). Sinauer Associates.

Additional Readings: TBA. We will be having a number of in-class discussions on various topics throughout the semester. Papers related to these will be posted on the course website prior to the scheduled discussion.

Tentative Lecture Syllabus

Day	Date	Topic	Schedule & Reading Assignments
W	9/2	What is Conservation Biology? What is Biological Diversity?	Chapter 1 & 2
F	9/4	Where is the World's Biological Diversity Found?	Chapter 3
W	9/9	Patterns of Biodiversity	Quiz 1; Chapter 3 cont'd
F	9/11	Ecological Economics & Direct Economic Values	Chapter 4
W	9/16	<i>Ethics vs. Economics</i>	Discussion
F	9/18	Indirect Economic Values & Ethical Values	Chapter 5 & 6
W	9/23	Extinction	Chapter 7
F	9/25	Vulnerability to Extinction	Chapter 8
W	9/30	<i>What caused the late Pleistocene Extinctions and why does it matter?</i>	Quiz 2; Discussion
F	10/2	Habitat Destruction & Fragmentation	Chapter 9
W	10/7	Degradation and Global Climate Change	Chapter 9 cont'd
F	10/9	Overexploitation, Invasive Species and Disease	Chapter 10
W	10/14	<i>Genetically Modified Organisms: bane or savior?</i>	Discussion
F	10/16		Midterm Exam
W	10/21	Problems of Small Populations	Chapter 11
F	10/23	Applied Population Biology	Chapter 12
W	10/28	<i>Gene banks and breeding programs</i>	Discussion
F	10/30	Establishing New Populations	Chapter 13
W	11/4	Ex Situ Conservation Strategies	Chapter 14
F	11/6	Establishing Protected Areas	Chapter 15
W	11/11	<i>Taxonomic Bias in Conservation</i>	Quiz 3; Discussion
F	11/13	Designing Networks of Protected Areas	Chapter 16
W	11/18	Managing Protected Areas	Chapter 17
F	11/20	Outside Protected Areas	Chapter 18
W	11/25	<i>International Politics and Conservation</i>	Discussion
F	11/27	Thanksgiving (no class)	
W	12/2	Restoration Ecology	Chapter 19
F	12/4	Conservation & Sustainable Development: Local	Chapter 20
W	12/9	Conservation & Sustainable Development: Global	Chapter 21 & 22
	*TBA	Final Exam	

*The final exam WILL be held during the regular final exam period. DO NOT make arrangements to leave town prior to this, as taking the exam early will NOT be an option.

Class Policies

Attendance. I expect you to attend lecture. It will be very difficult for anyone to do well in this class without attending lecture on a regular basis. Regardless of whether you are in class or not, however, you are responsible for everything which is discussed in lecture, everything which is assigned as class reading, and any handouts which are given in class. You are expected to make your own arrangements for access to class notes or handouts that you missed. As a study aid, I will post the lecture slides by the end of each week. Keep in mind that the slides only form an outline for the material covered in class and are therefore not a good substitute for class attendance. If you choose to use a laptop for taking notes during class, please refrain from checking e-mail or browsing the Internet – if you are caught doing so, I will ask you to put your computer away immediately.

Make up exams, quizzes and late assignments. Make up exams and quizzes will be possible only with a doctor's or a dean's letter or with prior approval. If you have a serious reason for missing an exam, you must call me BEFORE the scheduled exam period to notify me that you cannot take the exam. You are then responsible for arranging with me to make up the test or quiz within two days. Late assignments will be accepted, but penalized 10% of the points available for each 24-hour interval that they are late. E-mailed assignments will be accepted, but at your own risk – i.e., if the file I receive is corrupted or unreadable, it will be counted as late.

Academic dishonesty. I will have zero tolerance for academic dishonesty, including plagiarism or cheating. Instances of dishonesty will be punished by a zero on the assignment and consultation with the office of the Dean of Students to determine if further action is required.

Office hours. I will be in my office in Colton during office hours (unless otherwise noted) and will be happy to meet with students who have questions or concerns. I am happy to answer questions via e-mail during these times. However, if you e-mail me outside of these times, I cannot guarantee how quickly I will be able to respond. Please be patient and you will get a response.