

Cedar Crest College
Biology 315

Spring 2009
Seminar 2-3 credits

CASE STUDIES IN CONSERVATION BIOLOGY

Seminar: Tuesdays and Thursdays 9:30-10:45am, SC 106

Instructor: Dr. Amy Faivre
Phone: 610-606-4666 x3580
Email: aefavre@cedarcrest.edu

Office: SC 119A/119
Office Hours:
Thursdays 4-5pm,
or by appointment

Prerequisites: BIO 234 Ecology; BIO 307 Biodiversity and Conservation Biology (recommended). This course is required for BCB seniors to complete the major.

Required Text: Jacobson, S.K. 1999. Communication Skills for Conservation Professionals. Island Press: Washington, D.C. 351pp.

Other course readings will be handed out in class. Some reading assignments will involve reading web pages and PDF files that you are welcome to print out for yourself.

Other Required Materials: A 3-ring binder with blank or lined sheets of paper is recommended so that you can keep your readings organized with your notes from class and your discussion questions.

Course Description:

This course will be taught in a seminar style and involve a review and discussion of readings, issues and examples in biodiversity and conservation biology. Students will work independently and in small groups to critique species recovery plans, create materials that would be informative to the public regarding conservation issues, and debate the design of a park/preserve. Students taking the course for 3, rather than 2 credits, will also participate in service-learning projects involving an environmental issue in the local community and educating the public about a conservation issue.

Course Objectives and Outcomes:

The objective of this course is to review and consider from several angles, case studies and examples from some of the following topics in conservation biology: restoration ecology, design of nature preserves, wildlife management, non-native, invasive species threats, endangered species and their recovery plans, measuring biodiversity and ecotourism. Several course projects will provide experiences in reviewing and critiquing endangered species recovery plans and designing materials to educate the public. The service-learning projects will provide an opportunity to contribute to a local conservation project and to do public outreach. With these experiences the course is designed for the students to achieve the listed outcomes assessed in the following manner:

Outcome (1.) Have the ability to approach an issue in conservation biology from several different sides in order to design a solution that maximizes the cooperation of those involved while improving the health of the environment.

Assessment of Outcome (1.) Assigned readings will often be case studies or conservation reports familiarizing the reader with the many sides and limitations faced by those trying to design the most conservation-friendly approach. Accompanying the readings will be discussion questions to help shape the in-class commentary. Students also will participate in a role-playing exercise where they will have to defend different positions with which they may not personally agree. This exercise will be observed and graded.

Outcome (2.) Gain experience in designing educational materials for the general public to inform them of issues in conservation biology.

Assessment of Outcome (2.) After reviewing examples of educational materials that are used for younger children, young adults, and older adults, students will be asked to design their own educational tools to convey conservation messages to the public. These projects will be graded.

Outcome (3.) Become familiar with and be able to assess the types of data and reports conservation biologists who work for local, state and the federal government generate.

Assessment of Outcome (3.) After discussing the Endangered Species Act, students will give a presentation where they review and critique a U.S. Fish and Wildlife Recovery Plan; this assignment will be graded.

Outcome (4.) For students participating in the service-learning component of the course, they will contribute to and complete one section of a larger community-based research project. This will give them a sense of what it is like to collect data in the field and how to communicate the results to several other groups who are part of the larger project. The other service-learning project involves designing conservation educational materials and will be presented to the public – students will have an opportunity to observe first hand the success of their educational tools, as well as provide service in the form of educating the community to a particular environmental issue.

Assessment of Outcome (4.) Students will gather data and combine it with information collected by other groups to provide a useful project to the community. This project will be graded on completeness, usefulness and clarity in transferring the data from one group of contributors to another. The second project will be presented to members of the class and the community. Students will assess the success of their project and will be graded on the content of the project and their assessment of it.

Student Assessment (Assignments and Grading):

Final Course Grade: Final grades will be calculated as follows:

93.0-100% A		90.0-92.9% A-	87.0-89.9% B+	83.0-86.9% B	80.0-82.9% B-
77.0-79.9% C+	73.0-76.9% C	70.0-72.9% C-	67.0-69.9% D+	60.0-66.9% D	<60.0% F

Seminar – 2 Credits, Service Learning 1 Credit (260 or 385 points)

Due Date	Assignment	Points
2/12 – 2/26	Presentation of USFWS Recovery Plan	50
3/3	Proposal of Earth Day Educational Project	10
3/19	State Organizations List	10
4/2	Park Design Debate	50
4/16	Educational Pamphlet	50
4/23	Earth Day Educational Project to be Presented to the Class	40
All Semester	Participation in Class/Completion of Discussion Questions	50
4/24 (Friday afternoon)	Presentation of Earth Day Project as part of Cedar Crest College Earth Day Events and Assessment of Their Use	50 (Service Learning)
4/30, All Semester	Data Collection, Delivery and Explanation of Group Project	75 (Service Learning)
Total Points for 2 Credit Seminar		260
Total Points for 3 Credit Seminar and Service Learning		385

Seminar – We will be discussing many important ideas, issues and concepts from your reading assignments, previous courses, and personal experiences. Participation and questions are **strongly encouraged; in fact so much so that there is a formal grade associated with the discussion questions. Discussion questions will be handed out with most readings and each student will be specifically assigned 1-2 questions for which she is responsible. You are encouraged to complete all of the questions.** You are expected to do the readings and the questions before coming to class and to contribute. However, I will not be collecting your answers to the discussion questions.

Service Learning – The service-learning component of this course will be graded on participation, communication of data to other members of the class and to the community. Details of these projects will be given in class.

Date*	Topic	Reading to be done after class**
1-20	Course Overview	PA River Otters (1986 Serfass, Rymon, Hassinger)
1-22	Classifying Species	PA River Otters (PA Game Commission)/Measuring Genetic Diversity
1-27	Endangered Species	Politics/Economics of ESA
1-29	Endangered Species Act	US Fish and Wildlife Web Site/ Sample Recovery Plan
2-3	ESA and Recovery Plans	Wolves, Grizzlies, Wolverines (2001 Carroll, Noss, Schumaker, Paquet) <i>and</i> Wolf Reintroduction (Paquet et al. 2001)
2-5	Wildlife Management	Gray Wolf Reintroduction in Yellowstone – Appendix, Jacobson 1999/Updates 2008

2-10	Communicating Wildlife Management	Student-Assigned Readings
2-12	Student Presentations	Student-Assigned Readings
2-17	Student Presentations	Student-Assigned Readings
2-19	Student Presentations	Student-Assigned Readings
2-24	Student Presentations	Readings from “Restoring Diversity” 1996 Falk, Millar, and Olwell
2-26	Student Presentation/ Restoration Ecology	Readings from “Restoring Diversity” 1996 Falk, Millar, and Olwell
3-3	Restoration Ecology Proposal for Earth Day Project Due	
3-5 <i>No Class</i>	Dr. Faivre will be out of town – no class, but prepare the readings for the class after spring break.	Readings from “Drafting a Conservation Blueprint” 2003 Groves
3/9-3/13	Spring Break – No Classes	
3-17	The Nature Conservancy and its Philosophy/Organization	State Organizations List – Web Search
3-19	How are state government conservation agencies organized in your state? State Organization List	Halvorson and Davis 1996
3-24	National Park to Nature Preserve Design	Halvorson and Davis 1996
3-26	National Park to Nature Preserve Design	Student Research
3-31	Group Work/Questions – in class	Student Research
4-2	Park Design Debate	Non-native, Invasive Species Readings
4-7	Review and Discuss Debate / Non-native, Invasive Species	Non-native, Invasive Species Readings
4-9	Non-native, Invasive Species	Chap. 1 Jacobson 1999
4-14	Value of Communication	Chap. 5 Jacobson 1999
4-16	Educating the Public Educational Pamphlet Due	Primack 2002 Essentials of Cons. Bio and Groom, Meffe, Carroll 2005 Principles of Conservation Biology
4-21	Species Diversity- A Global Perspective	
4-23	Earth Day Projects Due – Class Review of Projects	Ecotourism and Development Mendelsohn 1997
4-24 (Friday)	Presentation and Assessment of Earth Day Projects	
4-28	Ecotourism: Pros and Cons	Chap. 6 Jacobson 1999
4-30	Delivering the Conservation Message Through Education Review of Service-Learning Project	
5-1	(No Class – Friday Schedule)	

* Dates for reading assignments are subject to change if we find that we want to spend more or less time on certain topics. I will clearly announce any changes to the reading assignments.

** Photocopies of most reading assignments will be given in class.

Course Policies and Student Responsibilities:

Attendance and Makeup:

Regular attendance is expected, as is the completion of all assignments. You are responsible for the materials covered in this course and are invited to ask questions to clarify any confusion with the subject matter.

*****If you miss an in-class, group project or presentation, it can only be made up if you notify me prior to the project/presentation day or on the day of the project/presentation and have a valid, documented excuse. Otherwise you will receive a "0" for this project/presentation. For excused absences, you have 1 week (i.e., if the project/presentation is on a Wednesday, you have until the following Wednesday to make up the project/presentation). To make up the presentation, you will give it to me at a scheduled time during that make-up week. Making up a group project will involve a written assignment reflecting what you missed in class.

For every day an assignment is late, the original grade for that assignment will be reduced by 5% (i.e., if an assignment is 2 days late, the grade for that assignment will be 10% less than the grade it would have earned if it had been handed in on the original due date).

Extra-credit Policy: No extra credit assignments will be given. If you are having difficulty in the course, please see me for extra help.

Honor Code

We will follow the rules of the Cedar Crest College Honor Code and the Classroom Protocol code as stated in the Student's Guide Book (Section A., p. 5-7).

Plagiarism

We will follow the College's policy on plagiarism. Please see the Student's Guide (Section A.I., pp. 5-7) for a definition of plagiarism and the College's policy on plagiarism. As stated by the handbook: Anyone who is found to have committed plagiarism will be required to redo the assignment or will get an F for that assignment, based on the severity of the offense. Under certain situations, those who have committed plagiarism may be suspended or expelled from the College. All cases will be reported to the Provost.

College Accommodations Policy

Anyone with documented disabilities who may need academic accommodations should discuss these needs with me during the first two weeks of class. Anyone with disabilities who wishes to request accommodations should contact the Advising Center (x3484).