BIO 307 BIODIVERSITY & CONSERVATION BIOLOGY LAB

SPRING 2010 M 1:00-4:00 PM SC 106 & MILLER 22

The diversity of life, so numerous that we have yet to identify most of them, is the greatest wonder of the planet.

E.O. Wilson

Professor: John A. Cigliano, Ph.D.
Office: SC119
Office Phone: 610.606.4666 X3702
Email: jaciglia@cedarcrest.edu
Office Hours: Wednesdays 9:00-10:00AM, 1:00-2:00PM
Prerequisites: BIO 235 Ecology, Evolution, & Genetics
Credits: 3.0

Course Description: The laboratory supports and is integrated with the lecture and is designed to provide a deeper understanding and practical application of the fundamental principles and applications of conservation biology. The laboratory will employ video, group exercises, and computer modeling to accomplish these aims.

Course Goals: The laboratory will provide each student with

1. an appreciation of the full extent of the threats to biodiversity
2. a deeper understanding of the principles of conservation biology and how these principles are connected and synergistic
3. an understanding how to apply these principles to achieve the goals of conservation biology: the maintenance and restoration of biodiversity.

Course Outcomes & Assessment: Upon completion of the course, students will

1. demonstrate critical analysis skills through the analysis and interpretation of videos and modeling studies. Assessment: computer modeling exercises and written reports.
2. demonstrate effective communication skills, both through the written word and oral presentation, through written reports of modeling studies and discussion. Assessment: computer modeling exercises and written reports.
3. demonstrate the ability to engage in critical analysis of the interpretation of results from computer modeling studies and of videos. Assessment: computer modeling exercises and written reports.
4. demonstrate technological competency through the use of computers to generate ecological models. **Assessment**: computer modeling exercises and written reports.

Required Text: None

Class Attendance: Regular attendance is **MANDATORY**, as well as arriving to lab on time. Your final grade will be reduced 10% for each missed lab.

Assignments: All assignments are due by the start of lab of the following week. **The grades for an assignment turned in late will be lowered by 10 pts for each day the assignment is late.** No assignment will be accepted after it has been returned to the rest of the class.

> **NOTE**: All assignments are to be submitted by email as a MS Word attachment, unless otherwise noted. All students are required to use their Cedar Crest College email account. I will not accept attachments or respond to emails from non-Cedar Crest.

Extra-credit: There will be ***NO*** extra-credit assignments given. All students are expected to put maximum effort into scheduled assignments. If you are having difficulty, see me and we will schedule one-on-one tutoring sessions.

Student Responsibilities:

1. A **TYPED** report will be required for each laboratory exercise. **WHILE THE LAB EXERCISES WILL BE A GROUP EFFORT, EACH STUDENT WILL BE REQUIRED TO SUBMIT HER OWN REPORT**. **(100%)**

2. Lab attendance is mandatory. Your final grade will be reduced by 10% for each lab missed unless a valid, documented excuse is provided. And you will still be required to conduct the exercise and submit the report.

Grades

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
Average %	≥93	90 - 92.9	87- 89.9	83 - 86.9	80 - 82.9	77- 79.9	73 - 76.9	70 - 72.9	67- 69.9	63 - 66.9	<63

Honor Code

I fully support the Cedar Crest College Honor Code and the Classroom Protocol code as stated in the Student's Guide Book (Section A.I).

Plagiarism

Plagiarism is a serious offense. In academia, few offenses are considered more serious. As such, I fully support the College's policy on plagiarism. Please see the Student's Guide (Section A.I) for a definition of plagiarism and the College's policy on plagiarism. Students who are 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

Students with documented disabilities who may need academic accommodations should discuss these needs with their professors during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the Advising Center.

LAB SCHEDULE

25 January	Lab 1: Introduction, What is Biodiversity? A Comparison of Spider Communities.
1 February	Lab 2: Why is Biodiversity Important? Using the IUCN Red List to Assess Importance **(Miller 22)**
8 February	Lab 3: Threats to Biodiversity: Local versus Global Perspectives **(Miller 22)**
15 February	Lab 4: Conservation Genetics-Population Genetics: Diversity within versus among populations
22 February	Lab 5: Conservation Genetics-Inbreeding, Fluctuating Asymmetry, and Captive Breeding Exercise Solution
1 March	Lab 6: Park size and species diversity: lessons from islands **(Miller 22)**
8 March	**Spring Break**
15 March	Lab 7: Grizzly bears: the problems of small populations **(Miller 22)**
22 March	Lab 8: Ecological Consequences of Extinction
29 March	Lab 9: Parrots and Palms (Miller 22)
6 April (Monday Schedule)	Lab 10: Marine Protected Areas: A simulation **(Miller 22)**
12 April	Lab 10: Continued **(Miller 22)**
19 April	Research Presentations **(Miller 22)**
26 April	Research Presentations **(Miller 22)**
3 May	**CONSERVATION MOVIE MARATHON**

NOTE: THE ABOVE SCHEDULE MAY BE CHANGED TO ALLOW FOR COORDINATION BETWEEN LECTURE AND LAB. I WILL ANNOUNCE ANY CHANGES TO THE SCHEDULE A WEEK IN ADVANCE.