

Biology 388: Biological Conservation (4cr)

Monday/Wednesday 4-5:15 ISC 137

and Thursdays 1-1:50 ISC

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Office Hours: Mondays 10:30-11:30, Tuesdays & Thursdays 4-5:15, and by appointment

Text: Primack, R.B. 2010 Essentials of Conservation Biology,

5th ed. Sinauer Associates, Sunderland, MA.

**Plus additional readings from the primary literature posted on MyCourses

Learning Outcomes:

Upon completion of this course students will:

1. Describe the source and spatial distribution of biodiversity, the human threats to biodiversity and how these interact with population/community dynamics to enhance the threat of extinction.
2. Explain the theories/ideas that underlie selected current conservation and management practices in North America and around the world, and recognize the complexity that different social/cultural priorities add to conservation issues
3. Apply understanding of threats to biodiversity and conservation theory to develop a conservation plan to selected problems in case studies.
4. Summarize and critically analyze a journal article describing a study from the current primary literature in Conservation Biology, and guide a class-wide discussion evaluating the study.
5. Evaluate and critique articles from the primary literature by developing questions and actively participating in evaluations of selected articles in class.
6. Create a written research proposal by identifying a question or problem, selecting appropriate background sources, and developing appropriate tests or management plans. Students will also critically evaluate the proposals of other students.
7. Cooperate with classmates and/or students from other disciplines in an applied conservation project at an off-campus site. Students will participate in collection of field data, analysis and report preparation. Students should expect to work independently or in small groups, and engage in professional interaction with and reporting to representatives of conservation organizations (eg. DEC, NY State Parks, Land Trusts).

**NOTE this course does NOT count for laboratory credit toward the Biology B.S. or B.A.

Semester Schedule:

Date	Topic	Assignments
8/26	Introduction to Conservation Biology	
8/28	Invasive Species/Restoration Ecology & our field project	
8/29	Describing Biological Diversity	
9/2	LABOR DAY – NO CLASSES	
9/4	Describing Diversity and the species concept	
9/5	Field Project Assignment Meetings	

9/9	Valuing Diversity
9/11	Field Site Visit 4 :00-6 :30
9/12	Field Visit Equivalency Time
9/16	Valuing Diversity
9/18	Extinction
9/19	Journal Article Discussion -1 QUIZ/TAKEHOME – Ch 1-7
9/23	Habitat Destruction & Fragmentation
9/25	Case Study
9/26	Journal Article Discussion -2 TAKEHOME DUE
9/30	Invasive Species
10/2	Overexploitation, Disease, Climate Change
10/3	Journal Article Discussion -3
10/7	Case Study
10/09	Problems of Small Populations
10/10	Field Data Collection/Management
10/14	FALL BREAK – NO CLASSES
10/16	Small Populations & Applied Pop. Biol
10/17	Journal Article Discussion -4 PROPOSAL TOPIC DUE QUIZ/TAKEHOME – Ch 8-11
10/21	Applied Population Biology
10/23	Case Study
10/24	GIS Lab TAKEHOME DUE
10/28	Establishing New Populations
10/30	CASE STUDY
10/31	Journal Article Discussion -5
11/4	Protected Areas
11/6	Guest Speaker PROPOSAL ANNOTATED BIBLIOGRAPHY & OUTLINE DUE
11/7	Journal Article Discussion -6
11/11	Protected Areas
11/13	Conservation Outside Protected Areas
11/14	Journal Article Discussion -7
11/18	Conservation Outside Protected Areas
11/20	Journal Article Discussion -8
11/21	Case Study PROPOSAL DRAFT DUE

11/25	Case Study - REVIEW PANEL ASSIGNMENTS
11/26	THANKSGIVING BREAK – NO CLASS
11/27	THANKSGIVING DAY – NO CLASS
12/2	Journal Article Discussion -9
	QUIZ/TAKEHOME – Ch 12-18
12/4	**PROPOSAL PANEL REVIEWS**
12/5	**PROPOSAL PANEL REVIEWS**
12/9	Journal Article Discussion -10
	TAKEHOME DUE
12/16	3:30-6:30 FINAL EXAM PERIOD

Grading:

Your grade in this course will be based on the following exams and assignments:

Chapter Quizzes & Take Home Exams	20%
Case Studies & Fieldwork Assignments	30%
Class Participation	15%
Journal Article Presentation	10%
Proposal	25%
<hr/> Total	<hr/> 100%

Final grades will be according to the following point distribution: >92%, A; 90-92%, A-; 87-89%, B+; 83-86%, B; 80-82%, B-; 77-79%, C+; 73-77%, C; 70-72%, C-; 60-69%, D; <60%, E. Under most circumstances, there will be no adjustment to your grades or the grading scale.

Quizzes/Exams

Students will be taking online chapter quizzes on the information in chapters in the textbook. The quizzes will be posted on MyCourses, students will have a 24hour time block to log in and take the quiz. Each quiz will be short answer questions for which reference to material from the textbook will be required for full credit. Quizzes will typically be 2-3 questions/chapter, and there will be a time limit and only one log-in per quiz for each student.

Take Home exams will involve longer essay-length answers to conservation challenge questions. Take home exams will be handed out and submitted online. Students will have one week between the opening of the exam questions online and the submission due date for the essays. All take home questions are open note, open textbook and open online source, but MUST be completed individually without discussion/consultation with classmates, and must be appropriately cited.

Case Studies & Field Work Assignments

Students may work individually or in groups during the semester on case studies (see semester schedule) and other in-class work and assignments. The instructor will announce details for each assignment. Some of these case studies and assignments may require work outside of class. Group members may have the opportunity to anonymously grade each other on preparation/participation/contribution to the projects, and

individual Group Work/Case Study grades will be adjusted to reflect each individual's contribution to the final product.

One credit of this 4 credit course is based on a field work/service-learning project that the class will complete in cooperation with students from GEOG 331: Field Biogeography. This project will involve completion of background readings/questions, collection of data in the field, analysis of data and write-up of a final report in teams of three students made up of students from both classes.

Journal Articles & Presentation

Each student will be responsible for giving an oral presentation on a current journal article (published 2000 or later) from the primary literature. Some suggested articles will be listed on the course website. Students are not required to use suggested articles, but all presentation articles must be chosen and submitted to the instructor for approval no later than September 19th. Additional details of this assignment will be provided in class. All students are expected to contribute to discussions of articles, even in the weeks when they are not presenting. Participation in journal discussions will weigh heavily in calculation of class participation grades (see below).

Research Proposal

A ~15 page paper will be required from each student in the course. The paper will be based on the student's reading and analysis and synthesis of the primary literature and development of a research proposal. The proposal may be on any topic within the field of conservation biology. The term paper assignment has multiple components with due dates throughout the semester – please pay attention to these dates on the syllabus. Additional guidelines for the paper will be distributed in class. **A Student MUST pass the proposal assignment in order to pass the class and receive credit for this class **

Class Participation

10points/discussion or activity day – based on contribution to journal article discussions & my assessment of your engagement in the class activities. If you do not offer any verbal contributions to the class discussions, you will not get class participation credit for the discussion.

Accommodations

SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities. Accommodations will also be made for medical conditions related to pregnancy or parenting. Students should contact Dean Buggie-Hunt in the Office of Disability Services (tbuggieh@geneseo.edu or [585-245-5112](tel:585-245-5112)) and their faculty to discuss needed accommodations as early as possible in the semester.

Academic Dishonesty

SUNY-Geneseo's policies on academic dishonesty are summarized in the Code of Student Conduct found in the Geneseo Undergraduate Bulletin online. Plagiarism and other forms of academic cheating are prohibited and may result in a zero on an assignment or exam. Plagiarism and cheating will be reported first to the departmental office, and may be referred to the Campus Judicial Council. Repeated incidents will result in failure of the course. Exams and term papers will be checked for plagiarism. If you have any questions about what constitutes academic dishonesty please contact the instructor.

Plagiarism

Plagiarism is very serious. If you plagiarize, you will be prosecuted. No excuses. No second chances -- even if you had planned to graduate. Plagiarism doesn't just happen accidentally. You are responsible for determining how to properly cite. If you are unsure or have questions, refer to Milne library's links for citations (under "Research Help"). If you still need assistance, ask your instructor or a librarian.

Students sometimes think that citations are necessary only when using material that is a direct quote. This is not true. A citation is necessary any time you include any information or idea that is not yours (i.e., directly or indirectly derived from someone else's thinking or writing). Any non-original idea that you fail to cite is plagiarized. Plagiarism is intellectual stealing and the consequences of plagiarism are substantial. In order not to be accused of plagiarism, all a student needs to do is properly cite sources.

For the purpose of this policy, plagiarism shall be considered to be deliberate representation of someone else's words or ideas as one's own or the deliberate arrangement of someone else's material(s) as one's own.

Any one of the following constitutes plagiarism:

- (1) Direct quotation without appropriate punctuation and citation of source,
- (2) Paraphrase of expression or thought without proper attribution;
- (3) Dependence upon a source for a plan, organization or argument without appropriate citation.

Plagiarism will certainly result in failure on the assignment and depending on the severity of the offense, may result in failing the course, and/or academic probation or expulsion. Keep in mind that plagiarism constitutes more than directly quoting someone else's sentences word for word without properly citing. It also includes borrowing or paraphrasing ideas as well. No matter how small the infraction, the department chairperson, and the student will be provided with a written report of the violation, any penalty imposed and any counseling provided. This will be done in order to insure that any pattern of misconduct is documented. As a result, you may face disciplinary action from the College.