

# **Biology 305: Conservation Biology**

## **Tuesday/Thursday 1:30-2:45**

### **ISC 137**

**Instructor:** Kristina Hannam, Ph.D.

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Office Hours: Mondays 2:30-5:00, Tuesdays 9:30-10:30

**Text:** Primack, R.B. 2010 Essentials of Conservation Biology,  
5<sup>th</sup> ed. Sinauer Associates, Sunderland, MA.

\*\*Plus additional readings from the primary literature

#### **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.

#### **Semester Schedule (Topics & Order subject to change):**

<b>Date</b>	<b>Topic</b>	<b>Assignments</b>
1/17	Introduction to Conservation Biology	
1/19	Local Conservation - the GVC	Chapter 15
1/24	Field Trip to Indian Fort site	Chapter 15/16
1/26	Protected Areas	Chapter 16
1/31	<b>Journal Article Discussion</b> –Dr. Hannam	
2/2	Biodiversity – patterns, threats & trends	Chapters 2&3
2/7	Valuing Diversity	Chapters 4-6
2/9	Valuing Diversity	Chapters 4-6
2/14	Extinction	Chapter 7
2/16	Extinction Case	Chapter 8

2/21	<b>Journal Article Discussion</b>	
2/23	Conservation Threats	Chapter 8 <b>GVC Draft Due</b>
2/28	Habitat Destruction & Fragmentation	Chapter 9
3/1	Habitat Fragmentation Case	<b>Research Proposal Topic DUE</b> Chapter 9
3/6	Invasives & Overexploitation	Chapter 10
3/8	<b>Journal Article Discussion</b>	
3/13	SPRING BREAK	
3/15	SPRING BREAK	
3/20	Problems of Small Populations	Chapter 11
3/22	<b>Journal Article Discussion</b>	
3/27	Problems of Small Populations	Chapter 11 <b>Proposal Annotated Bibliography &amp; Outline due</b>
3/29	PVA	Chapter 12
4/3	Establishing New Populations	Chapters 13&14
4/5	<b>Journal Article Discussion</b>	
4/10	Protected Areas	Chapter 17 <b>Proposal Drafts Due</b>
4/12	Conservation Outside Protected Areas	Chapter 18
4/17	GREAT DAY – NO CLASS	
4/19	<b>***PROPOSAL REVIEW PANEL MEETINGS***</b>	
4/24	Restoration of Damaged Ecosystems	Chapter 19
4/26	International Conservation	Chapter 20/21
5/1	Taking a Stand & Wrap-up	
5/7	12-3PM FINAL EXAM Period	
	<b>**FINAL DRAFT OF PROPOSAL DUE**</b>	

### Grading:

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

GVC Project	20%
Case Studies/Assignments/Quizzes	25%
Class Participation	20%
Journal Article Presentation	10%
<u>Proposal</u>	<u>25%</u>
Total	100%

## **GVC Project**

Students working in groups will contribute to a service learning project for the local land trust. Details will be given in class. Students will earn the grade earned by their group, but that grade may be modified based on peer-evaluations of the quantity and quality of the work contributed by each individual.

## **Case Studies & Assignments & Quizzes**

Students will be placed in groups during the semester to work on case studies (see semester schedule – though this may be adjusted) and other in-class work and assignments. 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. In addition, online discussions or quizzes based on the assigned readings may be assigned periodically, and students will be expected to contribute regularly and thoughtfully to the discussions via the course page on MyCourses.

## **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 approved by the instructor no later than Feb 15th. 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 – contributions to class discussion will count heavily toward individual participation grades.

## **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 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 as a seminar course fulfilling the departmental writing requirement\*\***

## **Class Participation**

10points/discussion or activity – 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.

## **Academic Dishonesty**

SUNY-Geneseo's policies on academic dishonesty are summarized in the Code of Student Conduct found in the Geneseo 2006-2008 Undergraduate Bulletin. Plagiarism and other forms of academic cheating are prohibited and may result in a zero on an assignment or exam. Repeated incidents will result in failure of the course. Exams and term papers will be checked for plagiarism. One tool available to detect plagiarism is Turnitin.com . 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 administration.