Biology 305: Biological Conservation (4cr)
Monday 3:00-5:30/Wednesday 4-4:50 ISC 137
FALL 2019

Instructor: Kristina Hannam, Ph.D. (she/her/hers)
Office: 259 ISC
Phone: x5790    Email: hannam@geneseo.edu
Office Hours: Mondays 10-11:30; Tuesdays 9:30-11 and by appointment (email to request appointment)

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 (GEOG) 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 local 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:
The following schedule is not set in stone. Dates/topics may shift, but you can assume that Exam dates WILL NOT CHANGE.

Date........................Topic----------------------------------------------------------------Assignments
8/26 ........................Introduction to Conservation Biology & the course --------Chapter 1 & Posted Readings
8/28 ........................Novel Ecosystems & our field project ---------------------Posted Reading
9/2 ..........................LABOR DAY – NO CLASSES

9/4 ..........................Restoration Ecology & Oak Openings ..........................Chapter 19 & Posted Readings

9/9 ..........................Field Site Visit and Orientation ..........................ROP-Posted Readings & Field Guide

9/11 ..........................Managing Protected Areas ..........................Chapter 17

9/13 ..........................**Field Guide DUE to Dr. Hannam**

9/16 ..........................Field Site Data Collection ..........................Chapter 6 & Posted Reading

9/18 ..........................Establishing Protected Areas ..........................Chapter 15 & Journal Article Discussion

9/23 ..........................Field Site Data Collection

9/25 ..........................ROP Data Work

9/27 ..........................**Rain Date for Field Data Collection**

9/30 ..........................Biodiversity & Where it is Found ..........................Chapters 2-3

10/2 ..........................EXAM 1

10/7 ..........................Biodiversity Loss/Extinction ..........................Chapters 7-8

10/9 ..........................ROP DATA WORK

10/14 ..........................FALL BREAK

10/16 ..........................Invasive Species/Overexploitation/Disease ..........................Chapters 9-10 Journal Discussion


10/23 ..........................Applied Population Biology + Journal Discussion ..........................Chapters 11-12

10/28 ..........................Establishing New Populations

10/30 ..........................ROP-Final Project Due - PRESENTATIONS ..........................ROP-Final Project Due

11/4 ..........................Protected Areas + Journal Discussion ..........................Chapters 15 & 16

11/6 ..........................Protected Areas ..........................Chapters 15 & 16

11/11 ..........................Protected Areas/Proposal Work

11/13 ..........................EXAM 2
11/18 ..................Protected Areas + Journal Discussion
**11/18 ..................ANNOTATED BIBLIOGRAPHY DUE**

11/20 ..................Guest Speaker: Ben Gajewski – GENESEE VALLEY CONSERVANCY

11/25 ..................REVIEW PANEL ASSIGNMENTS --------------------------PROPOSAL DRAFT DUE

11/27 ..................THANKSGIVING BREAK-NO CLASS

12/2 ..................**PROPOSAL PANEL REVIEWS**

12/4 ..................**PROPOSAL PANEL REVIEWS**

12/9 ..................Course Wrap-up & Final Case Study

12/12 ..................12:00-3:00 -----------------------------------------------FINAL EXAM PERIOD
                      FINAL PROPOSAL DUE

Grading:

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

Exams.......................................................................................................................35%
Visual Abstract, Case Studies, Class Participation & Journal Article Presentation ....25%
ROP Fieldwork Assignments...................................................................................20%
Research Proposal ...................................................................................................20%
Total .......................................................................................................................100%

Final grades will be assigned according to the following distribution: >93%, A; 90-93%, 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.

Don’t be fooled, this is a reading & writing-intensive course that requires a lot of work both in and out of class.

Exams

There will be 2 exams given during the semester (see schedule above for dates). Exams will be made up of an in-class portion and a take home portion. The in-class portion of the exam will be multiple choice/matching and short answer. Take home questions on exams will involve longer essay-length questions to conservation challenge questions/problems. Most of the questions will be based on readings from the textbook, in-class case studies, class discussions/lecture, and assigned journal articles. Take home questions will be handed out and submitted online. Students will have one week between the opening of the take home exam questions online and the submission due date for those questions. 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 in-text and in a reference page.

Case Studies

Students will work individually or in groups (as assigned by the instructor) 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. Each of
these case studies will have a short written assignment that must be handed in (usually online). All will be graded for completeness (0 for not turned in, 5 for incomplete or low-quality, or 10 for high quality & complete), and 3 will be graded more closely (on a 1-10 scale).

**Journal Articles & Presentation**

Each student will work with a partner to give a BRIEF oral presentation on a current journal article from the primary literature, and lead a 20 minute class discussion about the article and related conservation issues. 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).

**Class Participation**

10 points/week – based on contribution to journal article discussions & my assessment of your engagement in the class activities and case studies. If you do not offer any quality Journal Discussion verbal contributions to the class discussions, you will not get class participation credit for the discussion.

**ROP Field Work Assignments**

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, guided discussions with your fieldwork team, several visits to the field site for orientation to the problem and collection of data, analysis of data, presentation of a final report to both classes and a concluding essay.

**Research Proposal**

A ~12-15 page research proposal will be required from each student in the course. The paper will be based on the student’s reading, 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**

**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) 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.
Communication with the Instructor
The best way to communicate with Dr. Hannam is directly, face-to-face during office hours. If this is not possible, email via Geneseo email (hannam@geneseo.edu) is the second most favored means of communication. Dr. Hannam will make every effort to respond to emails sent to her during the workday by 6pm the same day. However, be aware that Dr. Hannam receives emails in batches 2-3 times/day, so may not respond immediately even during the workday. Emails sent after 5pm may not be answered until the following workday depending on Dr. Hannam’s schedule outside of work.

Taking Care of Your Mental Health
The Biology major is demanding, and as your instructor I try to keep in mind that mine is not the only course you are taking, and that most of you also have other demands on your time and attention in addition to your coursework. Juggling your many responsibilities can have an impact on your mental health. With this in mind, I realize that diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal academic performance. The source of symptoms might be strictly related to your coursework; if so, please make an appointment to speak with me one-on-one. I realize problems with relationships, family worries, loss, or a personal struggle or crisis can also contribute to decreased academic performance.

SUNY Geneseo provides mental health services to support the academic success of students. Counseling Services, a part of the Lauderdale Center for Student Health & Counseling, offers free, confidential psychological services to help you manage personal challenges that may threaten your well-being and success here in college.

In the event I suspect you need additional support, I will express my concerns and the reasons for them, and remind you of resources (e.g., Counseling Services, Career Services, Dean of Students, etc.) that might be helpful to you. It is not my intention to know the details of what might be bothering you, but simply to let you know I am concerned and that help, if needed, is available.

Getting help is a smart and courageous thing to do -- for yourself and for those who care about you.

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