

# Biology 305: Biological Conservation (4cr)

HYBRID/FALL 2020

Monday 3:00-5:50 (in-class small group meetings in ISC 107)  
& Wednesday 4-4:50 (online)

**Instructor:** Kristina Hannam, Ph.D. (she/her/hers)

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Office Hours: Wednesdays 4-5pm\*\*; Mondays 10-11am; Tuesdays 9:30-11am and by appointment (email to request an appointment); Wednesday hours are for this course ONLY appointment)

**Text:** Cardinale, Primack, & Murdock 2020 Conservation Biology,

1st ed. Sinauer Associates, Sunderland, MA.

Plus additional readings 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.
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 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.

## Pandemic Learning Objectives

I hope you will join me in adopting these additional learning objectives. This semester will be a big opportunity for learning for all of us, and to be as successful as we can be, let's commit to each other:

1. To be patient and kind with ourselves and each other as we navigate these new ways of learning.
2. To embrace the opportunity to learn in new ways and grow as life-long learners.
3. To do our best, knowing that our best may look different than it has in other semesters.
4. To communicate openly and clearly about our expectations, concerns, and goals.

5. To be flexible. We are in unfamiliar and uncertain times. We're all a bit anxious. Circumstances will likely change over the course of the semester. Let's work together to make this the best class possible, knowing that this may be a moving target.

-credit to @MikkiBrock for sharing a draft of these objectives

## About hybrid/online learning:

This may be the first full course that you have taken with such a significant online component, and there are major differences between this and the usual face-to-face courses you are used to. Keep in mind that whether a course is online or face-to-face, you should expect to be doing approximately 3 hours of work a week for every credit hour earned. For this course, that means 12 hours of work per week. In a face-to-face course 3 -4 of the 12 hours per week would be spent in the classroom listening to lecture, in discussion, and small group work. The other 9 hours would be spent doing homework and out-of-class project work, reading the assigned readings and studying. That same 12 hours in this online course will be spent on similar sorts of work, but in somewhat different proportions, modes, and almost all scheduled by you.

Being in an hybrid/online course gives you more control about the timing of your focus on course material, but be prepared for the workload and be prepared to be more responsible for your own learning. Online learning in many ways more closely mimics the kind of self-motivated learning that you will do when you leave college, so think of this as training for the the rest of your life. While you have more flexibility about when you focus on course material, you should strongly consider creating a weekly schedule for your work (pace yourself!), and I strong recommend logging into the course Canvas page daily to see updates and comments from your instructor and classmates.

College policies for in-person/hybrid classes in which a participant tests positive for COVID-19 The college relies on contact tracing provided by the Livingston County Department of Health. In cases where DOH contact tracing identifies that an individual who has tested positive for COVID-19 has been present during in-person sessions of a class during the period when they may have been contagious, that class will be moved entirely online. The Provost's Office, in primary consultation with the Livingston County Department of Health and through additional consultation with the instructor, Health and Counseling, and Human Resources, will determine if/when in-person instruction may resume.

## Course Design

This course is divided into 2 main modules, each associated with an exam. There are also Canvas Modules associated with the major course projects/assignments for the semester that each last longer than the individual 6-week modules. You will find the course modules labeled on Canvas. Each module focuses on 3-4 topics, and for each topic there will be readings, online lectures, activities and assignments. The class will meet in small cohorts on Mondays for 60-75min sessions, and online via Zoom on Wednesdays. To complete a module, and move on to the next module, you must complete the reading/problem quizzes for that module.

## Grading:

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

Oral Exams & Online Reading Quizzes .....	35%
Case Studies,Class Participation, Sit-Spot & Article Discussions .....	25%
GVC Service Learning 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.**

## Oral Exams & Reading Quizzes (35% of grade)

Oral Exams: There will be two oral exams over the course of the semester. Exams will cover material from the textbook and the online lectures, as well as questions about any journal articles, case studies/problem sets or guest speakers from class. Exams are *not* cumulative per se, though there is a great deal of connection among topics in the course so certain themes may apply to questions on more than one exam.

For each oral exam, students will be provided with a pool of 10-20 exam questions at least one week before the exam is due. At that time, students will sign up for an individual Zoom appointment with Dr. Hannam on the Exam date. Students will answer 3 randomly chosen questions in the Zoom meeting with Dr. Hannam (lasting no more than 12 minutes). The rubric for grading exam questions will be available on the course Canvas site.

Reading Quizzes: On each Sunday indicated in the syllabus, there will be a reading quiz on the textbook chapters assigned for the previous week. Quizzes will have 5-10 multiple choice questions for each chapter assigned, plus optionally 1-2 questions (short answer or multiple choice) on case studies/presentations/discussions from the previous week (see next paragraph). The quiz will be open textbook and open note. Each quiz will be open from 12:01am until 11:59pm on Sunday, you will have one opportunity to take each quiz, and you will have 10 minutes to complete the quiz once you have opened it. Your lowest single quiz grade will be dropped.

## 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).

## Class Online Discussions

Article Discussions: We will have weekly article discussions over the course of the semester during each module. During each 6 week module, you must fully participate in at least 4 of the article discussions to receive full credit for this assignment. The dates and articles that will be discussed are listed briefly in the syllabus and on the Canvas page. Journal Article discussions will be held on the course Canvas discussion board in assigned groups. The rubric for participation and for grading the discussion are posted on the course Canvas page.

**\*\*Students should expect to see questions about these articles on the exams.\*\***

## Class Participation

10points/week – based on contribution to journal article discussions & my assessment of your engagement in the class activities and case studies.

## Service Learning Project

One credit of this 4 credit course is based on a service-learning project that the class will complete in support of the local land trust. This project will involve completion of background readings, collection of data and materials, design and writing of the final materials, and presentation of a final report to the class and the GVC. Successful completion of this project will require excellent teamwork (as evaluated by Dr. Hannam and your peers), and satisfaction of our client, the land trust.

## Research Proposal

A 8-10 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 via Canvas. **\*\*A Student MUST pass the proposal assignment in order to pass the class and receive credit for this class \*\***

## Late work and Make-up work

In the Canvas Dropboxes for most assignments you will find that the due date/time may be different than the closing date/time. That means it is possible to submit late work (after the due date/time) up until the closing date/time. Late work is typically penalized -10% for each day (24hours) late, and the penalty may be assessed proportionally by time.

If you believe you have a valid excuse (illness or other extenuating circumstance) for late work, or need make-up work, you must contact Dr. Hannam as soon as possible, and before the end date of the module in which the work is due. Dr. Hannam will work with each student individually to determine the best solution to the missed deadline.

## Communication with the Instructor

The best way to communicate with Dr. Hannam is via Canvas course contact (Canvas inbox or Canvas class discussion question board). The second best way is via Geneseo email ([hannam@geneseo.edu](mailto:hannam@geneseo.edu)). Dr. Hannam will make every effort to respond to messages sent to her during the workday by 6pm the same day. However, be aware that Dr. Hannam checks messages 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. And Dr. Hannam typically takes one day/week off from work (usually Saturdays), and checks email on weekends only sporadically.

## 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 \ Office of Disability Services ([tbuggieh@geneseo.edu](mailto: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.

## 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 course work; 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.

## Copyright Notice

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## Semester Schedule:

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

### Module 1

Week 1-6 (Aug 31- Oct 5): Protected Areas, Biodiversity, Management and Restoration

Textbook Chapters 1, 2, 14, 15, 5, 6

Important Dates:

Guest Speakers on Wednesdays: Sept 2, Sept 9, Sept 16, and Tuesday, Sept 22

Case Studies on Sept 23, Sept 28

In-class work on Service Learning Project: Sept 14, Sept 21

Oral Exam Questions out to students Oct 5

Oral Exam via Zoom Oct 12

### Module 2

Week 7-11 (Oct 6-Nov 18) Threats to Biodiversity & Causes of Extinction

Textbook Chapters 3, 4, 7, 8, 9, 10, 11, 12

Important Dates:

Work on Service Learning Project: Oct 7, Oct 19, Oct 26 Presentation to GVC Oct 28

Nature Journals set #1 due Oct 12, Reflection Due Oct 16

Case Studies Oct 21, Nov 2

Research Proposal Topic Due Oct 23

Nature Journals set #2 due Nov 18, Reflection Due Nov 20

Oral Exam Questions out to students Nov 11

Oral Exam via Zoom Nov 18

### Module 3

Research Proposal Annotated Bibliography due Nov 23

Draft Research Proposal Due Nov 30

Review Panels Dec 7 & Dec 9

Final Research Proposals Due Dec 15.