ECOL 3530 Conservation Biology (CRN 42569)
Fall 2022

Time: 3 hours per week. Tuesdays and Thursdays 2:20 - 3:35 pm

Place: Ecology Seminar Room (room 117)

Instructors:	Richard Hall, Ph.D.	rjhall@uga.edu
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Teaching Assistant:	Carlos Molinero Sampedro	Carlos.molinero@uga.edu

Prerequisites: BIOL 1104 or (BIOL 1108 and BIOL 1108L)

Overview
This 3 credit-hour course is an introduction to the rapidly expanding field of conservation biology. We will cover the foundational principles of conservation biology, and use case studies to illustrate these principles in practice. The goals of the course are as follows:

(i) To understand what biodiversity is, how it is measured and valued, and how biodiversity changes through time via speciation and extinction.
(ii) To recognize the principal current threats to biodiversity, and how these threats are mitigated.
(iii) To understand the practice and complexity of preserving biodiversity and ecosystem function through a multi-disciplinary lens and applied case studies.
(iv) To be familiar with how species are monitored, and actions taken to maintain the viability of threatened populations.

Readings
Some classes have accompanying readings from the scientific literature to be read before the class period; these form the basis of in-class paper discussions, quizzes and homeworks. Required readings will be announced in the prior class period and uploaded to eLC.

Attendance and illness-related absence
To achieve the highest grades in this class, regular in-person attendance is expected. Attendance is assessed by quizzes in each module, based on the lecture or reading material, together comprising 20% of your final grade. In the event that you display COVID-like symptoms, we ask you to stay home, get tested, and email the class TA in advance of the class so arrangements can be made to make up any missed quizzes. If you do test positive, stay at home for 5 days following this result - do not attend class during this period even if you feel OK. For serious illnesses or other crises that result in you missing multiple classes, we will ask you to contact the TA and instructor(s) for the classes you have missed. Note that we may need to ask you to provide proof of the emergency (such as a doctor's note) to the class TA.

Evaluation
Grades will be based on class participation (20%; based on unannounced in-class quizzes), individual coursework (30%), three mid-term exams (30%), and a group project (20%). ***If you do not complete the in-class or pre-class activities, it will be very difficult for you to do well in this class.***

The mid-term exam dates are set (Sept. 15/ Oct. 18/ Nov. 22). Students can miss any one of the three exams for any reason without any penalty. If a student completes all three exams, the lowest exam score will be dropped. Make-up exams will only be allowed in a rare instance where a student experiences very serious and on-going personal illness or an immediate family emergency on the date of the exam and who meet all of the following requirements: 1) Student must notify the TA of the reason for their absence prior to the

exam, 2) Student must provide official documentation of serious personal illness or immediate family emergency, and 3) If the documentation is confirmed, the make-up exam will be taken at the earliest possible date following the scheduled exam. The exam may differ from the class exam, and may be entirely essay based.

Your grade for the group projects will be based on a combination of individual contributions to the project and the overall group score. Each group will create a presentation to be delivered to the class in the last week of class. Projects will be graded on the basis of delivery, content, quality and clarity of the accompanying slides. As part of your individual contribution score, and instead of a final exam, everyone will write a short reflection based on the group presentations. This reflection is due in eLC by the end of the day on **Friday December 9th**.

The plus/minus grading system will be used, according to UGA policy. This course grading will strictly follow this plus/minus grading scale: A = 93-100, A- = 90-92.9, B+ = 87-89.9, B = 83-86.9, B- = 80-82.9, C+ = 77-79.9, C = 73-76.9, C-= 70-72.9, D = 60-69.9, F = <60. ***We are providing opportunities to enhance your grade (i.e., dropped exam score). Therefore, all grades are final and cannot be rounded up at the end of the semester.***

Honors option: Honors students wishing to pursue an honors option can write a term paper based on a book or collection of scientific papers on a topical issue in conservation biology. The topic and the readings must be agreed with an instructor ***prior to the midterm break***. Papers are due by the last class period of the semester.

Office hours
Office hours are scheduled by appointment only. Please contact instructors or the class TA with questions relating to material from their modules at the email addresses listed above.

Accommodations
Please contact Dr. Hall if you require special accommodations due to learning disabilities, religious practices, physical or medical needs.

General Notes
(i) All academic work must meet the standards contained in the University's Academic Honesty Policy. Students must follow the UGA Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others", and are responsible for informing themselves about those standards before performing any academic work. Please familiarize yourselves with the guidelines on academic honesty found here: http://honesty.uga.edu/
(ii) The course syllabus is a general plan for the course; deviations announced to the class by the instructors may be necessary. Changes to the class schedule will be announced in class and on eLC announcements, and an updated schedule uploaded to eLC. ***Make sure you receive notifications of eLC announcements to your email.***

Mental Health and Wellness Resources
• If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit https://sco.uga.edu/. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
• UGA has resources for students seeking mental health services (www.uhs.uga.edu/bewelluga/bewelluga) or crisis support (www.uhs.uga.edu/info/emergencies).
• If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (https://www.uhs.uga.edu/bewelluga/bewelluga) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.

Class schedule

Th 8/18	Introductions; course outline and logistics, coursework	**RH & SC**
Module 1. Intro to Conservation Biology, Biodiversity and Extinction		
Tu 8/23	History of Conservation Biology	Connelly
Th 8/25	What is biodiversity? Measuring biodiversity	Connelly
Tu 8/30	Speciation	Connelly
Th 9/1	The extinction crisis and extinction risk	Connelly
Tu 9/6	Environmental Economics	Connelly
Th 9/8	Amphibian declines: Central America case study	Connelly
Tu 9/13	Exam prep	Connelly
Th 9/15	**FIRST MIDTERM EXAM**	Connelly
Module 2. Conserving small populations and threats to biodiversity		
Tu 9/20	Conservation Genetics	Hall
Th 9/22	Problems with small populations	Hall
Tu 9/27	Global Climate Change	Hall
Th 9/29	Overexploitation	Hall
Tu 10/4	Habitat loss and fragmentation	Hall
Th 10/6	Invasive species	Hall
Tu 10/11	Infectious Diseases and Conservation	Hall
Th 10/13	Exam prep	Hall
Tu 10/18	**SECOND MIDTERM EXAM**	Hall
Module 3. Conservation in practice		
Th 10/20	Plant conservation (?)	Hall
Tu 10/25	Aquatic invasive species	Connelly
Th 10/27	Conserving biodiversity & protected areas	Connelly
Tu 11/1	Introduction to group projects	Hall
Th 11/3	Estimating current and future population sizes	Hall
Tu 11/8	Captive breeding and release strategies	Connelly
Th 11/10	Captive breeding debate	Connelly
Tu 11/15	Ecological Restoration	Hall
Th 11/17	Exam prep	RH & SC
Tu 11/22	**THIRD MIDTERM EXAM**	
Th 11/24	**NO CLASS - THANKSGIVING**	
Tu 11/29	Group presentations part 1	RH & SC?
Th 12/1	Group presentations part 2	RH & SC?
	Individual reflection due by end of day Friday December 9th	