

Conservation Biology (ECOL 3500)

Fall 2020

Course description Introduction to the foundational principles of modern conservation biology. Investigation of how biological diversity changes across time and space, threats to biodiversity, and how biodiversity can be managed using cross-disciplinary approaches and illustrated with applied case studies.

When & Where?

- TTh 11:10 am
- <https://zoom.us/j/97670299752>

Instructor JP Schmidt (jps@uga.edu), office hours by appointment, please e-mail to schedule a Zoom meeting

Course Details

Credit

3 hours

Pre-requisites

BIOL 1104 or (BIOL 1108 & BIOL 1108L)

Required materials

Principles of Conservation Biology 3rd Edition Groom, Meffe, Carroll
Additional readings will be made available on eLC or via online links

Course format

Recorded lectures, Zoom flipped class

Course objectives

To understand what biodiversity is, and how it changes through speciation and extinction.
To understand how biodiversity is measured and valued, and the principal current threats to biodiversity. To understand the practice and complexity of preserving biodiversity through applied case studies.

Attendance Students are expected to attend all Zoom meetings at the scheduled class time – **having read the assigned reading and watched the assigned lecture.**

Grading The plus/minus grading system will be used, according to UGA policy. Grades will be assigned following 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. Grades **will not be rounded** (ex. 92.99 will receive an A-, while 93.00 will receive an A).

Your grade in this course will be composed of the **following items**:

1. Class participation	10.0%
2. Daily questions from readings and lecture (Reading assignment)	15.0%
3. 3 mid-term exams	37.5%
4. Final paper	12.5%
5. Final presentation	12.5%
6. Final exam	12.5%

Class participation – I expect all students to participate in class discussions of the readings and recorded lectures. I recognize that some students find it easier to contribute than others, but all students should prepare for class and to contribute questions if only via the text box. Also, **please** ask questions of a general nature (either on the material or on course management) in the chat box on eLC called ECOL 3530 Questions.

Homework

Daily **Reading assignment**: 2 questions on the reading/lecture assigned for each class must be turned in on eLC by 10 am on the day of each class. These will be used for Q&A during class and to grade participation. These will be graded for clarity, topical importance and difficulty.

Final paper and presentation

Presentation – 10 minute powerpoint presentation to the class graded on organization, accuracy, command of the topic, and delivery.

Paper – 5 page summary paper to an audience of your choice (scientific, legislators, general public, high school students, etc.).

Exams

3 mid-term exams, and a concise final exam covering new material and some cumulative material.

Mid-term and final exams will be mostly short essay questions and administered online, through eLC. All exams will be 'open book', meaning that students can use notes and the textbook for reference. Students will be given a 3-hr window to start the exam, but once an exam is started, it will need to be finished within 50 minutes.

Questions will be written to assess your ability to synthesize material presented in class, including any videos and assigned readings. Like most biology courses, exams in this class will test you beyond memorization of terms. I want to ensure that you understand ecological principles and processes. Therefore, exams will have scenarios which you have never specifically learned about but should be able to reason through based on the information we discussed in class.

Preparing for exams

In each powerpoint, I list 'synthesis questions' on the last slide to help you identify and ensure you understand key concepts.

At the end of each Groom et al. chapter are study questions. Use these questions to check your grasp of the material.

To ensure deeper understanding of course material, I suggest finding a team of classmates to study with (in a responsible and physically distant manner!) and discuss concepts.

Make-up policy Students may miss any one of the three mid-term exams for any reason (sickness, travel, transportation issues, death in the family, etc.) without any penalty. In the event that a student completes all three mid-term exams, the lowest mid-term exam score will be dropped. The same policy applies to reading and homework assignments. In this case, the lowest 2 homework assignments will be dropped, and students can miss 1 reading assignment.

Important Dates

Add/Drop	Aug 14 – 20
Exam 1	Tuesday, Sept 22
Withdrawal Deadline	Monday, Oct 21
Exam 2	Thursday, Oct 22
Exam 3	Tuesday, Dec 1
Classes End	Wednesday, Dec 9
Final paper due	Thursday, Dec 10
Reading Day	Thursday, Dec 10
Final Exam	Tuesday, Dec 15, 12:00 - 3:00 pm

Topical outline/Tentative schedule

Date	Day	Topic	Recorded lecture	Reading*
20-Aug	Th	Introduction & overview	L1-Introduction	Chap. 1
25-Aug	T	Biodiversity patterns	L2-Biodiversity patterns	Chap. 2
27-Aug	Th	Threats to biodiversity	L3-Threats to biodiversity	Chap. 3
1-Sep	T	Plant biodiversity	L4-Plant biodiversity in Georgia	TBA
3-Sep	Th	Biodiversity & ecosystem function	L5-Biodiversity, ecosystem function	TBA
8-Sep	T	Conservation values & ethics	L6-Conservation values, ethics	Chap. 4
10-Sep	Th	Shifting baselines	L7-Shifting baselines	TBA
15-Sep	T	Ecological economics & conservation	L8-Ecological economics, conservation	Chap. 5
17-Sep	Th	Cobenefits	L10-Cobenefits	TBA
22-Sep	T	Exam 1		
24-Sep	Th	Habitat degradation & loss	L11-Habitat degradation, loss	Chap. 6
29-Sep	T	Habitat fragmentation	L12-Habitat fragmentation	Chap. 7
1-Oct	Th	Overexploitation	L13-Overexploitation	Chap. 8
6-Oct	T	Species invasions	L14-Species invasions	Chap. 9
8-Oct	Th	Not all bad?	L15-Invasives controversy	TBA
13-Oct	T	Biological impacts of climate change	L16-Biological impacts, climate change	Chap. 10
15-Oct	Th	Conservation genetics	L17-Conservation genetics	Chap. 11
20-Oct	T	Landscape approaches to conservation	L18-Conservation, landscape	Chap. 12
22-Oct	Th	Exam 2		
27-Oct	T	Returning historic disturbance regimes	L20-Controlled burning	TBA
29-Oct	Th	Ecosystem approaches to conservation	L21-Ecosystem, conservation	Chap. 13
3-Nov	T	Protected areas design	L22-Protected areas design	Chap. 14
5-Nov	Th	Ecosystem & population restoration	L23-Ecosystem, population restoration	Chap. 15
10-Nov	T	Coastal resilience	L24-Coastal resilience	TBA
12-Nov	Th	Sustainable development	L25-Sustainable development	Chap. 16
17-Nov	T	Forest conservation	L26-Forest conservation	Freakonomics
19-Nov	Th	Conservation science & policy	L27-Conservation science & policy	Chap. 17
24-Nov	T	21st century conservation challenges	L28-Conservation challenges	Chap. 18
26-Nov	Th	Thanksgiving		
1-Dec	T	Exam 3		
3-Dec	Th	Student presentations		
8-Dec	T			

*Chapters from *Groom et al. 3rd edition*

University Honor Code & Academic Honesty

As a University of Georgia student, you have agreed to abide by the UGA academic honesty policy, “A Culture of Honesty”, and the Student Honor Code (“*I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others.*”). All academic work must meet the standards described in “A Culture of Honesty” found at: <http://honesty.uga.edu>.

You are responsible for informing yourself about the university’s standards before performing any academic work. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Please ask if you have questions related to course assignments and the academic honesty policy. Any form of possible academic dishonesty will be reported to the UGA Office of the Vice President for Instruction.

Accommodations for Disabilities

If you require a disability-required accommodation, it is essential that you register with the Disability Resource Center (Clark Howell Hall; <https://drc.uga.edu>; 706-542-8719 [voice]; 706-542-8778 [TTY]) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations. Please note that accommodations cannot be provided retroactively.

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 several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://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.
- Additional resources can be accessed through the UGA App.

FERPA Notice

The Federal Family Educational Rights and Privacy Act (FERPA) grants students certain information privacy rights. For details, please visit <https://apps.reg.uga.edu/FERPA>.

Syllabus Disclaimer

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Coronavirus Information for Students

Face Coverings: Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at <https://drc.uga.edu/>.

DawgCheck: Please perform a quick symptom check each weekday on DawgCheck—on the UGA app or website—whether you feel sick or not. It will help health providers monitor the health situation on campus: <https://dawgcheck.uga.edu/>

What do I do if I have symptoms? Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see <https://www.uhs.uga.edu/info/emergencies>.

What do I do if I am notified that I have been exposed? Students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 14 days consistent with Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at sco@uga.edu, to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.

How do I get a test? Students who are demonstrating symptoms of COVID-19 should call the University Health Center. UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162. UGA will also be recruiting asymptomatic students to participate in surveillance tests. Students living in residence halls, Greek housing and off-campus apartment complexes are encouraged to participate.

What do I do if I test positive? Any student with a positive COVID-19 test is **required** to report the test in DawgCheck and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.