ECOL 3500: GENERAL ECOLOGY
UNIVERSITY OF GEORGIA
SPRING 2022

Meeting Times: Tue/Thur 2:20- 3:35pm Chemistry Auditorium (Room #400)

Instructors:

Dr. Jeb Byers
Odum School of Ecology, Rm 194B
jebyers@uga.edu
Office Hours: Tues. 1:30-2:15pm
Or by appointment

Dr. Scott Connelly
Odum School of Ecology, Rm 20
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Office Hours: by appointment

*(Please contact us through the above email addesses, and **not** the eLC system discussion board)*

Course Overview and Objectives:

This course investigates the physical and biological factors affecting the distribution, abundance, and adaptations of organisms, and is designed to give you an appreciation of the complexity and simplicity of natural systems. By the end of this course, you should have a better understanding of system structure and function at the levels of organisms, populations, communities, and ecosystems. You should be able to think in both a reductionist and holistic capacity, and utilize these perspectives to examine novel ecological situations. The ecological background presented in this course will provide you with the tools to evaluate environmental problems confronting society, and understand how to conserve and/or manage systems for future generations. This course emphasizes critical thinking skills and the scientific method as a way to introduce facts into an arena which information and sound logic are sometimes lacking. We will examine current environmental issues, both within Georgia and globally, to reinforce the relevance of the material being studied. This course is also designed to prepare you for more advanced courses in ecology, such as population and community ecology, behavioral ecology, limnology, and systems ecology.

ECOL3500 is a 3-credit hour course, with a required 1-credit laboratory component. However, the Laboratory portion is a stand-alone course, and grading is entirely independent between courses. Although topics in Lecture and Laboratory will overlap, please refer all questions pertaining to the Laboratory component to your TA. In the event that you are not successful in resolving any Laboratory concerns with your TA, please reach out to Dr. Kait Farrell (kfarrell@uga.edu).

Prerequisites:

[BIOL 1104 or BIOL 1108-1108L or (PBIO 1220 and PBIO 1220L)] and [(CHEM 1211 and CHEM 1211L) or (CHEM 1311H and CHEM 1311L)]. MATH 2250 highly recommended.

Text and Additional Materials:

Krebs, C. J. 2008. *Ecology: The Experimental Analysis of Distribution and Abundance* (6^{th} edition). Benjamin Cummings, Boston, MA. The text is required.

We will provide partial copies of all PowerPoint lectures on eLC.

The PowerPoint lectures may include material in the text and additional material covered in class. The PowerPoint handouts are intended to reduce the amount of note taking required during lectures; *they are not intended to replace the need to attend class, as additional material will be presented during lectures.*

Additionally, students will be required to read several news articles throughout the semester. These papers will be uploaded to eLC, and announced in class. Each article has been chosen because of its relevance to current events. You will be expected to have read and understood the main points in each article. Although it will not be possible (due to time constraints) to discuss each paper during class, *several questions on each exam may be related to these readings.*

Important class information and updates will be posted on UGA eLearning Commons (www.elc.uga.edu).

Attendance:
Attendance in lecture is strongly encouraged as material covered and emphasized in class will be the basis for the homework assignments and exams.

Face coverings are recommended for all individuals, whether vaccinated or not, while inside campus facilities. Faculty strongly encourage, but cannot require, students to wear face coverings to help limit the spread of COVID-19 amongst fellow students, faculty, staff and the local community. While instructors will be informed about positive COVID-19 incidence in their classes through DawgCheck, students in the same classroom may not be made aware of any potential close contact except through contact tracing (which will be completed by the Department of Public Health). Use of face coverings will help ensure students' own health and safety.

Late Policy & Electronics:
If you find that you have severe conflicts with turning an assignment in on time, contact Dr. Connelly or Dr. Byers (for lecture assignments) to discuss the situation before the assignment is due. Otherwise, assignments must be turned in on time. The use of computers, cell phones, tablets etc., during class time must be directly related to class activities.

Course Grading:
Your evaluation will be based on:

Four exams (150 points each)	600* points
Homework assignments (100 points):	100 points
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	700 points total

Homework assignments: There will be a number of homework exercises assigned during the semester. These will be posted on eLC, and your responses will be uploaded to eLC. These assignments will be designed to reinforce your understanding of topics presented in the class, and it will be in your interest to complete them to the best of your ability. Late assignments will not be accepted.

Exams: Three in-class exams will be administered prior to the final exam. The exams may be a combination of multiple choice, short answer, and short essay. Questions will be written to assess your ability to synthesize material presented in class, including any videos and assigned readings. The fourth exam, the final, is not comprehensive, and will only cover material presented after the 3rd exam.

Make-up exams will **not be allowed** for any exam, except possibly for the very rare instance where a student experiences **serious** and on-going personal illness or immediate family emergency on the date of the exam and also meets each of the following requirements: 1) Student must notify the instructor of the reason for their absence prior to the exam, 2) Student must provide official documentation of serious personal illness or immediate family emergency within 2 days of the exam date, 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 will not be identical to the class exam, and may be entirely essay based. Except for these rare, documented instances, **make-up exams are not an option.**

Any grading dispute must be addressed within **one week** from the date that the relevant exam grade is posted on eLC. The plus/minus grading system will be used, according to UGA policy. This course grading will strictly follow this plus/minus grading scale, **with no rounding**:
A = 93-100, A- = 90- <93, B+ = 87- <90, B = 83- <87, B- = 80- <83, C+ = 77- <80, C = 73- <77, C-= 70- <73, D = 60- <70, F = <60

Academic Integrity:
UGA students are bound by an academic honor code that details rights and responsibilities for students. You should be aware that this code provides serious sanctions for academic dishonesty (including, but not limited to, plagiarism and cheating). We expect that you will follow the honor code. If you have any questions about the honor code or about what constitutes plagiarism or cheating, please either check your UGA Student Handbook, also available on-line at http://www.uga.edu/honesty/ahs/ahs.htm, or speak with the course instructors.

Accommodations for Students with Disabilities:
If you have an identified disability and will need accommodations, you should first contact The Disability Resource Center (DRC) (https://drc.uga.edu/; 542-8719). They will discuss the UGA process and work with you to access supportive services. If you have a learning disability, the University will require you to provide supportive documentation and will develop an approved accommodation sheet for you. Accommodations cannot be provided until the accommodation sheet is established and we have met to discuss its applicability to this course. Accommodations cannot be provided retroactively. All conversations will be strictly confidential.

Summary of Important Dates to Remember:

Event	Date(s)
Add/Drop	Jan 10 - 14
Martin Luther King Jr. Day – No Classes	Jan 17, Monday
Exam #1	Feb 8, Tuesday
Exam #2	Mar 1, Tuesday
Spring Break	Mar 7 -11, Monday-Friday
Withdrawal Deadline	Mar 24, Thursday
Exam #3	Mar 31, Thursday
Reading Day	May 4, Wednesday
Final Exam	May 10, Tuesday 3:30-4:45pm

Lecture Schedule (subject to changes that will be announced as necessary)

Week	Topic
1: Jan 11	Introduction; Distributions/Range Limitation
2: Jan 18	Experimentation, Population Growth
3: Jan 25	Population Growth and Regulation
4: Feb 1	Population Growth
5: Feb 8	Two-species Interactions, Predator-Prey
First Exam: Feb 8	
6: Feb 15	Predator-Prey Interactions
7: Feb 22	Predator-Prey Interactions, Competition
8: Mar 1	Competition, Mutualism/Parasitism
Second Exam: Mar 1	
Mar 7-11-----**Spring Break: No Classes this week**	
9: Mar 15	Communities: Introduction to Biodiversity
10: Mar 22	Community: Changes Over Time
11: Mar 29	Ecosystems: Functional Dynamics
Third Exam: Mar 31	
12: Apr 5	Ecosystems: Primary Production
13. Apr 12	Ecosystems: Secondary Production
14. Apr 19	Ecosystem: Nutrient Cycling/Human Impact
15. Apr 26	Ecosystem: Global Change
16. May 3	Ecosystem: Global Change
Final Exam: May 10, Tuesday 3:30-4:45pm	