COLORADO STATE UNIVERSITY

Ecology – LIFE 320 – Spring 2024
Course Syllabus

Course Information
Course Time: Tuesday and Thursday from 8:00 am to 9:15 am
Course Location: Glover 130
Course Credits: 3

Instructor: Dan Preston (he/him/his)
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Office Hours Location: Wagar 240
Office Hours: Thurs, 9:30 to 10:30 am

TA: Alyssa Graziano (she/her/hers)
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Office Hours Location: Wagar 006
Office Hours: Tues, 9:30 am – 10:30 am

Course Description
Ecology is the study of how organisms interact with one another and the environment. It is an interdisciplinary field that connects the physical and biological sciences. Some of our course content will draw from adjacent fields including meteorology, geology, chemistry, physics, physiology, behavior, evolutionary biology, ecosystem science, and mathematics. Our course is rooted in understanding processes at different scales of ecological organization including individual organisms, populations, communities, and whole ecosystems. This course is meant to provide a general overview of foundational ecological concepts, rather than a deep dive into any one subfield of ecology.

Course Learning Outcomes
By the end of the course, you will be able to:
1) Discuss, examine, and evaluate concepts in ecology, including (but not limited to) the physical environment, climate change, aquatic and terrestrial ecosystem characteristics, evolutionary ecology, behavior, population dynamics, species interactions, community structure, ecosystem processes, conservation biology, and ecosystem management.
2) Draw connections between concepts at differing levels of ecology organization, from organisms to ecosystems.
3) Understand and explore basic mathematical models representing ecological processes.
4) Enhance basic skills in data analysis and scientific writing while producing an ecological research report.

Canvas
We will utilize Canvas extensively to post materials and to turn in assignments. Course materials will not be printed and provided to students in class. You are encouraged to download and print any materials from the Canvas course website that you desire.

Course Schedule
The course schedule is posted to Canvas in a separate document. The schedule may change, in which case students will be notified in class about any changes.

Lectures
Most course periods will include lectures to convey concepts. The course is being taught fully 'in-person', meaning you are expected to attend lecture times each week. iClicker questions will be used as a mechanism to encourage course participation and

attendance in class (more on iClicker questions below). Lecture slides will be posted to Canvas in the form of PDFs, which can be used for note-taking during class or for studying. Echo360 recordings of the lectures will also be available on Canvas, but are not meant to serve as a substitute for attending course periods. Note that some of our class time may be spent on discussions, assignments, and other learning formats that may not translate well to the Echo360 recordings.

Readings and Other Media

The textbook for this course is: _Ecology_ by William D. Bowman and Sally D. Hacker. You can use either the 5th or 6th edition. The eBook is available via Day One Access, with a link on Canvas. The cost for access to the eBook is about $60. If you prefer, you can opt out of the eBook and purchase a print copy instead. Most lectures will be accompanied by readings from the textbook. The relevant chapters for each lecture are listed in the Course Schedule on Canvas. It is recommended that you read the relevant book content prior to the lecture. I have three copies of the text that I am happy to loan out to students for use on campus in 2 hour blocks, at anytime. Please get in touch if you are having trouble accessing the textbook. Other readings or relevant media will be made available on Canvas as a PDF or via a posted link.
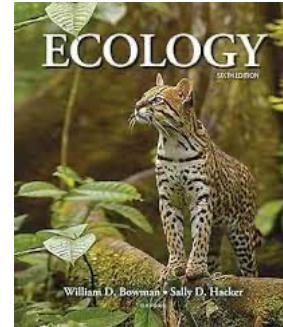
iClicker Questions

We will use iClicker software to increase engagement in class and to help reinforce course concepts. iClicker software can be used with a smart phone, tablet, or laptop. We will not be using iClicker remotes in class. Please let your instructors know if you do not have access to a mobile device. You should be automatically enrolled if you have an iClicker account already. If you need to download the free iClicker software and set up an iClicker account please go to: https://canvas.colostate.edu/iclicker/student-information/ You should also receive an email with instructions if you are not enrolled in the iClicker course automatically. iClicker questions will count for 10% of your final grade (see details below).

Assessment

Grades will be assigned as follows:

A+	100 %	to	96.67%
A	< 96.67 %	to	93.33%
A-	< 93.33 %	to	90.0%
B+	< 90.0 %	to	86.67%
B	< 86.67 %	to	83.33%
B-	< 83.33 %	to	80.0%
C+	< 80.0 %	to	76.67%
C	< 76.67 %	to	70.0%
D	< 70.0 %	to	60.0%
F	< 60.0 %	to	0.0%

The grade will be based on the following components of the course, which are described below:

iClicker Questions	10%
Homework Quizzes	10%
Assignment 1 – Population Models	15%
Assignment 2 – Scientific Report	15%
Midterm 1	15%
Midterm 2	15%
Cumulative Final Exam	20%

iClicker Questions: Points will be given for participation (1 point if all questions are answered in that class session) and additional points are also awarded for correct answers (0.25 points per correct answer). For example, if there are four iClicker questions in one class period, and you get three of four correct, you would receive 3.75 out of 4 total points. Most lectures will have between one and five iClicker questions.

Homework Quizzes: Many weeks of the semester we will post a short quiz to Canvas that is designed to test your understanding of the material from the previous week or two. The quizzes will help us to understand where you may have points of confusion, and they will also serve as a useful guide for you to prepare for the exams. Quizzes will be typically due on Fridays at midnight, and you can access them anytime after the Thursday course session. There will be ten quizzes in total. Quizzes that are completed late will receive partial credit. See the Course Schedule posted to Canvas for the exact due dates of all quizzes.

Assignment 1 – Population Models: We will explore the dynamics of some basic population models. You will be asked to turn in a question set to Canvas based on this exercise. The due date is indicated in the Course Schedule.

Assignment 2 – Scientific Report: To help develop your data and writing skills, we will work through a dataset to address a few ecological questions. A short written report with some figures will be turned in to Canvas. The due date is indicated in the Course Schedule. A grading rubric will also be posted to Canvas.

Exams: The course will involve two midterm exams and one cumulative final exam. The exams will include a variety of question types, including multiple choice and some short answer questions. Exams will be administered via Canvas. The midterm and final exam dates are indicated in the Course Schedule.

Guidelines for our Classroom Environment

Our goal is to create a group space where you learn effectively from the instructors and from one another. This necessitates a welcoming, respectful, inclusive environment where we feel comfortable engaging with the material and with one another. We strongly value diversity and inclusion and see it as a way to strengthen our learning environment. With this in mind, you should:

- Provide space for one another to speak in group settings.
- Recognize that your race, gender, sexuality, class, age, and ability have informed your perspectives and prior learning experiences, and those of your peers.
- Differentiate between anecdotes/opinions and informed knowledge based on sustained experience, study, and practice.
- Be considerate of the fact that students in this course span a gradient of academic career stages.

- Identify the limits of your prior knowledge and work to extend them. If you are familiar with a topic, consider: How can I take this deeper? How can I connect this to other concepts I know? How can I apply this information? How can I challenge others around me to deepen their knowledge?

Time Expectations for a 3-Credit Course at CSU

Each credit hour at CSU is expected to require 2 to 3 hours of time, which includes in-class time and out-of-class course learning activities (reading, writing, quizzes, studying, etc.). As a result, the total time expectation for the course should be 6 to 9 hours a week. Of course, this will vary from week-to-week depending on what is happening in class, with some weeks involving less time. This is an established credit hour policy standard utilized by the University.

Kids and Childcare

If you are unable to arrange childcare at some point during the semester, feel free to bring your child to class.

Accommodations for Students with Disabilities

Please let me know as soon as possible if you have a disability and request accommodations. If you have not done so, students with disabilities are invited to contact the CSU Student Disability Center for a confidential discussion. I will work either directly with you or in coordination with the Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, will be held confidential.

Academic Integrity & CSU Honor Pledge

This course will adhere to the CSU Academic Integrity/Misconduct Policy and the CSU Student Conduct Code. These policies can be accessed at the following URL: https://catalog.colostate.edu/general-catalog/policies/students responsibilities/#academic-integrity. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

This Syllabus is a "Living" Document

I reserve the right to update, revise and amend this syllabus during the semester. When anything is revised on the syllabus, I will discuss it in class and provide an opportunity for you to ask relevant questions.