

EBIO 4100: Natural History of the Southern Rocky Mountains

Course dates: June 5th to June 17th 2026

Instructor:

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Meeting Times:

Friday (6/5) – Saturday (6/6) from 8am to 5pm

Sunday (6/7) no class

Monday (6/8) – Saturday (6/13) from 8am to 5pm

Sunday (6/14) no class

Monday (6/15) – Wednesday (6/17) from 8am to 5pm

Email: I consider email exchange in the context of this class to be a professional correspondence and it should be conducted in that manner. Writing formal emails is a great professional skill for all of you to practice. I will be available by email during normal ‘business hours’ (8am-6pm Monday-Friday).

Overview: This is a field-based, experiential course that takes place at the University of Colorado Mountain Research Station and surrounding areas. The course is designed to introduce students to:

- 1) ecology and evolution of the southern Rocky Mountains;
- 2) the value of field observations and keeping a notebook as a record of your observations and thoughts;
- 3) the value of alpine forest, mountains, and tundra for understanding human influences on populations of plants and animals; and
- 4) the use of illustration for making observations of the characteristics, distribution, and abundance of animals and plants

Course objectives and learning goals:

- 1) *Engage in observation-discovery and hypothesis-driven studies of ecology, evolution, and conservation biology.*
 - Develop different problem-solving strategies and use ecological and evolutionary principles to understand ecology, evolution, and conservation
 - Make personal discoveries about the world
- 2) *Effectively communicate scientific content, methods, and thinking*

- Construct logical-deductive arguments based on evidence
- Develop oral, written and visual science communication skills. Every job in science requires effective communication.
- Demonstrate awareness of the ways context, audience, and purpose drive content, presentation, and stylistic choices

3) *Decipher, assess the validity, and gauge the uncertainty of scientific claims*

- Distinguish between claims based on scientific evidence and other types of claims
- Judge and critique the reliability, sufficiency, and/or authenticity of information
- Correctly interpret graphical, tabular, and text-based description of data
- Enhance ability to synthesize and critically evaluate information. Science is not about simply regurgitating information. We will engage in focused readings and discussions that will require critical thinking.

4) *Collaborate with people of varying knowledge and points of view towards common goals*

- Effectively collaborate with others towards shared goals
- Make and solidify interpersonal connections that stem from preparedness and participation in the sociology of science

5) *Use principals of evolution to explain the diversify of life*

- Explain how evolution happens (heritable variation, struggle for existence, natural selection, drift)
- Evaluate the human impact on the ecology and evolution of humans and other species

6) *Use your knowledge of ecology and evolution to explain patterns across multiple temporal and spatial scales, particularly on islands.*

- Model or illustrate how life history traits, competition, predation, parasitism and niche effects can influence ecology and evolution

Instructional format: This summer field course will be entirely taught at the University of Colorado Mountain Research Station and the cost includes food and lodging for the duration of the course. More information on staying at the MRS can be found here: [Staying at the MRS](#)

When at the MRS: You will develop a notebook that is your record of observations, information, and thoughts during the field course. In addition, there will be a series of assignments. These will take different forms. On a typical day, we will be active during the entire day, from early morning to the end of the day. After dinner, we will meet and engage in some planned learning activities. This typically lasts for an hour (or so). After that, you are on your own unless we have planned a later

evening activity (e.g., owling, star watching, etc...).

Grading: Grades will be based on individual and group products generated during the course. Students will generate a field notebook that contains their responses to all assignments and projects. This will be due on the last day of class. In general, final course grades will be calculated on the familiar scale where $\geq 90\% = A$; $\geq 80\% = B$; $\geq 70\% = C$, etc.

Participation and Class Discussions: Throughout the course, we will be having numerous discussions. You will receive credit for attending class and participating in these activities. Active discussion is an essential component of this course. It is imperative that all students do the assigned reading and actively comment and ask questions during any discussion period.

Expedition Field notebook: This will be an individual project and will make up the majority of your grade for the course. During our time at the Mountain Research Station I will be asking you to reflect on your experience and record it in words, illustrations, and with pictures. There will also be daily themes/assignments, which you will respond to/complete in your field notebook. At the end of the course I will collect all of your field notebooks and assign the main grade of the course based on their overall quality.

If you intend to include personal reflections in your field books please keep in mind that I will be reading everything at the end of the trip. If you do want to journal in a more personal way during the course, which can be very fun, I would suggest bringing an additional notebook.

I will provide write-in-the-rain and watercolor notebooks. If you want an additional notebook beyond those you will have to purchase it yourself.

In Class Use of Electronic Devices: Electronics (cell phones, laptops, ipads...) can be powerful learning tools and I encourage students to use these devices appropriately to help them better learn the material in class (e.g. taking notes). However, research has shown that students who check their cell phones in class receive on average half a grade lower than their peers who don't. Surfing the Internet, or checking email on your laptop in class is even worse (almost a full grade lower on average). This behavior also distracts students around you and brings down their performance as well. You may be convinced that you are good at multitasking, but science shows that you are not. Please use electronic devices appropriately in my classroom.

Classroom Behavior; Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy.

For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or DSinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website. If you have a temporary illness, injury or required medical isolation for which you require adjustment, please let me know as soon as you can so that we can ensure that you stay on top of the material. I will not require a doctors note.

Preferred Student Names and Pronouns: CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Honor Code: All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part in adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: StudentConduct@colorado.edu. Students found responsible for violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation:

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits protected-class discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email CUreport@colorado.edu. Information about university policies, reporting options, and support resources including confidential services can be found on the OIEC website.

Please know that faculty and graduate instructors must inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive outreach from OIEC about resolution options and support resources. To learn more about reporting and support for a variety of concerns, visit the Don't Ignore It page.

Religious Accommodations: Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please communicate the need for a religious accommodation in a timely manner. In this class, let me know prior to the date and we will work together to ensure that you stay on top of the material.

See the campus policy regarding religious observances for full details.

Mental Health and Wellness: The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact Counseling and Psychiatric Services (CAPS) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through Academic Live Care. The Academic Live Care site also provides information about additional wellness services on campus that are available to students.