

Field Ornithology – Mountain Research Station, University of Colorado Boulder

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Email: We consider email exchange in the context of this class to be a professional correspondence and it should be conducted as such. Writing formal emails is a great professional skill. We will be available by email during normal 'business hours' (8am-6pm Monday-Friday).

Course Texts: You are required to obtain a copy of *The Sibley Field Guide to Birds of Western North America*, David Allen Sibley, 2003 (~\$15 on Amazon, new). **Other field guides are unacceptable and will result in a loss of participation credit.**

Readings: Readings from primary literature, when applicable, will be made available via email.

Course Summary: This course will provide an in-depth exploration of field ornithology, including avian evolution, functional morphology, physiology, ecology and behavior of birds. Field and lab-based study will emphasize morphology, ecology and behavior, taxonomy, field identification of local birds by sight and sound, and field methods (e.g., point counts, mist netting, bird banding).

Course Objectives:

- 1) Learn basic field ornithology methods (e.g., point counts, mist netting, bird banding, etc), and how these methods are used in ecological and evolutionary studies of birds.
- 2) Foster an appreciation for avian Rocky Mountain diversity and the role of birds in the greater ecosystem
 - Learn form and function of major avian groups
 - Identify local bird species by sight and sound
 - Predict avian ecology based on form
- 3) Observe bird activity and meticulously log field-based observations
 - Identify common Colorado birds by sound and sight.
 - Develop observational skills both with and without binoculars
 - Memorize common Colorado bird calls and recognize songs in the field
 - Learn how to properly catalog birding ventures in a field notebook
 - Sketch avian forms: unknown species and/or observed behaviors
 - Participate in the beginning of a long-term study of black-capped and mountain chickadees by monitoring nests.
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Course Structure: This course will meet July 8-13 and July 15-20, 2024. Each day will involve time in the field, and a combination of lab and lecture time. The latter part of the course will be devoted to group projects that use field methods students learn during the first week.

Lab Schedule (subject to change)

	Topics / Activities
Week 1	- common Rocky Mountain birds (field and lab-based ID) - avian evolution and diversity - intro to field methods (bird observations, mist netting, banding, point counting)
Week 2	- Independent projects - ID quiz (sight and sound)

Recommendations: Bring your field notebook (provided by course), field guide, and binoculars to every class. Always be prepared to spend time outside - dress appropriately for the field every day. Study songs and bird ID through repetition.

Assignments and Grading: Assignments will not be accepted after the due date (except in the cases of religious observance, see policies).

eBird species list: In addition to your field notebook, we want you to become comfortable being a contributing member to a long-term citizen science project. Every entry from your notebook should be entered as an eBird record. At the end of the course, you will turn in a hard and digital copy of your eBird species list. **20 pts**

Notebook checks: You will all receive a Rite in the Rain field notebook where you will keep detailed notes on bird activity throughout the duration of the course. You will conduct *point count surveys*, logging detailed notes in your field notebook, whenever assigned (many mornings). There will be 3 checks of your field notebook (5 pts each, at the end of each week) throughout the semester: **15 pts**.

Bird talk: during the first week of the course you will choose a mountain or alpine bird to become familiar with. During the beginning of the next week of class you will give a short 5min talk about that bird species. Research for this talk can use web sources, but you should also read at least two papers from the primary literature. **50pts**

Notebook final write-up: Using your detailed field notebook observations from the course of the semester, you will create brief (500-700 words) write-ups of your elevational point-count observations, of your work with the Boulder Chickadee Study, and of your field experiences. This will include a description of the sites, as well as a description of elevational shifts in avian biodiversity and other observations. You will include 150-200 words in addition to your write up, reflecting on your field skills and how they have progressed. Critically assess your first entry in comparison to your last entry and reflect on how skills have changed: Final draft **50 pts**

Participation and Class Discussions: Everyone will start the class with **50 pts** of participation credit. Failing to participate fully will result in the deduction of points. Missing a day (no make-ups are offered is an automatic loss of 10 pts. Full participation requires: actively paying attention (i.e., no superfluous cell phone use), asking questions, engaging with the material, fully filling out your field books, and respectfully collaborating with peers. Anything less than this will result in a less than perfect participation grade: **50 pts**

ID Quiz – sight and sound: As this is a hands-on identification based course, there will be an ID quiz during the last week of the course. You will be expected to properly identify pictures and sounds of birds. **100 pts**

Final Project Write-up: During the final week of the course you will conduct your own field project. You will submit a 2-page summary of this project that includes an introduction, methods, results, and brief discussion. **200 pts**

Grade Breakdown:

Assignment	Points
Final Project	200
eBird species list	20
Notebook Checks	15
Notebook Write-up	50
Participation	50
ID Quiz	50
Bird Talk	50
TOTAL	435

Letter Grade Assignments:

- 94-100 (A)
- 90-93 (A-)
- 87-89 (B+)
- 83-86 (B)
- 80-82 (B-)
- 77-79 (C+)
- 73-76 (C)
- 70-72 (C-)
- 67-69 (D+)
- 63-66 (D)
- 60-62 (D-)
- < 60 (F)

In Class Use of Electronic Devices:

Electronics (cell phones, laptops, ipads, etc.) can be powerful learning tools and I encourage students to use these devices appropriately to help them better learn the material in class (i.e. taking notes, Merlin). However, research has shown that students who check their cell phones during class receive, on average, half a grade lower than their peers who don't. Surfing the web or checking your email 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 you are not. Please use electronic devices appropriately during the in-doors component of this lab section.

Decorum: *Be kind.* There's no need to upset your instructors by coming in late, or by being disruptive or flagrantly inattentive during class meetings. (Penalties may apply.) Nor is there any reason to be discourteous to your fellow students. Brisk intellectual debate is a wonderful thing— personal attacks are an abomination and a drag.

Don't cheat. Any kind of cheating or plagiarism is utterly unacceptable. You are required to know and abide by the CU honor code (see the link on the last page of the syllabus). Academic dishonesty is an insult to your instructors, your fellow students, and your own abilities.

The fine print

Academic Misconduct: All students of the University of Colorado at Boulder are responsible for knowing and adhering to the student Honor Code and academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information can be found at <http://honorcode.colorado.edu/student-information>. **You should know that we will not take violations of this policy lightly.**

Accommodation Policies: If you qualify for accommodations due to a disability, please submit a letter from Disability Services in a timely manner so that your needs may be addressed.

Disability Services determines accommodations based on documented disabilities. (<http://disabilityservices.colorado.edu/>, 303-492- 8671). Campus policy regarding religious observances requires faculty to make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance without inhibiting or penalizing those students who are exercising their rights to religious observance. If you anticipate any class conflicts due to religious observance, please notify me within the first two weeks of classes to arrange necessary accommodations. See policy details at <http://www.colorado.edu/policies/observance-religious-holidays-and-absences-classes-andor-exams>.

Classroom Conduct: Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with dignity, understanding, and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. For complete policy statements see: <http://www.colorado.edu/policies/student-classroom-and-course-related-behavior> and http://www.colorado.edu/studentaffairs/studentconduct/#student_code.

Discrimination and Harassment: The University of Colorado's Policy on Discrimination and Harassment, on Sexual Harassment, and on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status, should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals who believe they have been harassed can be obtained at <http://www.colorado.edu/odh/>. For detailed policies and procedures as well as resources, see also <http://www.colorado.edu/policies/discrimination-and-harassment-policy-and-procedures>.