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University of Montana Course Syllabi, 2021-2025

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Spring 2-1-2022

### **BIOO 470.00: Ornithology**

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#### **Recommended Citation**

This syllabus is used in all sections of BIOO 470.

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**Lecture Information****Professor:**

Dr. Zachary Cheviron

Office: 317 ISB

Email: zac.cheviron@mso.umt.edu

Office Hours: 1:30-3:30 Tues. or by appointment.

**Lectures:** MWF 10:00-10:50 Chemistry 212

**Course Description:**

This course acquaints students with classification, identification, morphology, distribution, natural history and ecology of birds, with a focus on birds of Montana and northern Rocky Mountains. This description applies especially to the lab portion of the course. The lecture component will present an overview of avian diversity, evolution, ecology, physiology, and behavior. We will use lectures and readings to review and summarize this knowledge and research.

**Learning Outcomes:**

Upon completion of the course, students will have:

- 1.) Gained an understanding and appreciation of global avian diversity, and the evolutionary history of birds on earth.
- 2.) Gained an understanding of the unique features of avian physiology, behavior, and ecology.
- 3.) Be able to identify common birds of Montana and the Rocky Mountain West by sight and sound
- 4.) Gained familiarity with common field methods employed by ornithologists.

**Course Web Site:** Materials for the course will be posted on the course Moodle site site:

<https://moodle.umt.edu/>

**Required Materials:**

**Text:** A textbook is NOT required for this course, but I recommend *Ornithology: Foundation, Analysis and Application*, Michael Morrison, Amanda Rodewald, Gary Voelker, Melanie Colon, and Jonathan Prather eds., 2018, Johns Hopkins University Press, ISBN: 978-1421424712.

**Field Guide:** A field guide is required. I recommend the *Sibley Field Guide to Birds of Western North America* by D. A. Sibley - published 2016 (or a similar field guide or smart phone app. Clear your choice with your lab TA)

**Binoculars:** Binoculars are required. See course website for more information.

Reading assignments for some lectures will also provided on the course Moodle site. My expectation is that you will read this material before coming to class. Material from the text will be covered quickly and used as a starting point to explore topics in more detail. Similarly, all of the laboratory materials will be posted on the course website. The expectation is that you will read the introductory material in your laboratory manual before coming to the lab each week (see below).

**Point Allocation** (Plus/minus grades may be assigned).

Exams – 600 points; 60% of total grade; 200 pts for each of 3 exams

Lab – 400 pts; 40%

Grading Scale A [1000 - 900 pts], B [899 - 800], C [799 - 700], D [699 - 600], F [< 599]

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**Exams:** All exams will be open book and have an extended completion deadline. There will be fewer questions than you might be used to in other courses, but they will be more-open ended and require greater synthesis commensurate with your access to class materials and other resources. I will post the exam on Moodle on the day of the scheduled exam, and you will have 72 hours to complete it. You will NOT 'need' 72 hours to finish the exam; the extended deadline is simply an attempt to build in flexibility since I know many of you will be working at home with potential distractions. I will provide guidance on the expectations for these modified exams in lecture.

### **Lab Information**

**Location: HSB 202**

### **TAs:**

Bridger Creel (they/them, [bridget.creel@umconnect.umt.edu](mailto:bridget.creel@umconnect.umt.edu))

Remy Delplanche (He/him, [remy.delplanche@umconnect.umt.edu](mailto:remy.delplanche@umconnect.umt.edu))

Erin Keller (she/her, [Erin.Keller@umontana.edu](mailto:Erin.Keller@umontana.edu))

### **Lab Grade:**

Your grade in the lab portion of the course will determine 40% of your overall course grade, and your lab grade will be determined by your combined performance on lab quizzes, quizzes on bird identification in the field, and two small projects. The first four weeks of lab will be dedicated to familiarizing you with common birds of Montana and northern Rocky Mountains. At the end of these four weeks, you should be able to identify 160 common species by sight, and subset of these species (40) by sound. We will quiz you weekly on 40 species. See lab schedule of quiz dates. These identification skills will be critical for field trips and quizzes that follow in the later weeks of lab.

In addition to being able to identify birds in the lab, this course is also designed to teach you skills for identifying birds in the field, as well as proper methods for recording observations of birds in the field, modern techniques for monitoring bird populations and abundances. You will be assessed on these skills during field trips in weeks 7-15. Field quizzes will take place during organized field trips. Prior to these field trips, your TA will provide a list of species you are likely to encounter on the trip to help in preparation, but any species on the species list from the first four weeks of lab is fair game. In addition to questions on bird identification, you will also be asked conceptual and methodological questions on a variety of modern field ornithology techniques that you will cover on these field trips. You will not have a quiz every field trip. Instead, your TA will administer a total of five "pop" quizzes spread over the eight field trips. The timing of these quizzes will be up to your TA's discretion.

You will also perform two small projects over the course of the semester. These are designed to teach you skills to effectively disseminate information about birds to a variety of target audiences. The first will be to design an infographic that will focus on an independent analysis of eBird data. **Your lab TA will provide detailed information on our expectations for the infographic, tips for success, and a detailed schedule of due dates.** A key part of communicating is giving and receiving criticism. Thus, each student will be randomly paired with a partner, and each student will provide their partners with peer review on the first draft of the infographic. This will enable students to help each other, while learning how to criticize, and take criticism, effectively. You will be graded by your TA on the quality of your peer review. We will provide guidance on what makes for effective peer review and a rubric prior to this assignment.

The second small project will be to develop a three to five minute video or podcast on a birds species (or group of species). Again, as with the infographic assignment, your **lab TA will provide detailed information on our expectations for this project, tips for success, and a detailed schedule of due dates.** You will also peer review drafts of this assignment and we will provide expectation on this assignment as well.

**Lab Point Allocation (400 pts. total – 40% of total course grade):**

Lab and Field Quizzes: 100 pts. (10 pts. ea. 25% of total lab grade)

In-lab exercises: 50 pts. (12.5 % of total lab grade)

eBird Infographic: 100 pts. (25% of total lab grade)

Species Account podcast/video: 150 pts. (37.5% of total lab grade)

**Lab Attendance Policy:**

Attendance is expected at all scheduled laboratory sessions. Because of limitations on lab space and staffing, missed labs cannot be made up beyond the weeks for which they are scheduled. Limited accommodation of students with conflicts may be made in other lab sections – **this must be cleared with Dr. Cheviron at least one week in advance of the anticipated conflict.**

**COVID accommodations:** The first six weeks of lab will be held indoors. The remaining periods will be outdoors and involve field trips. In accordance with University policy, we will require students to follow all health guidelines, including requirements to wear masks in class. We will also follow University guidelines and health procedures in field, as well requiring independent travel to field trip locations. If you have a concern or other health complication that prevents you from participating in these activities, please reach out to Dr. Cheviron.

**Accessibility, disabilities, and special accommodations:**

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equity (ODE). If you anticipate or experience barriers based on disability, please contact the ODE at: (406) 243-2243, [ode@umontana.edu](mailto:ode@umontana.edu), or visit [www.umt.edu/disability](http://www.umt.edu/disability) for more information. Retroactive accommodation requests will not be honored, so please, do not delay. As your instructor, I will work with you and the ODE to implement an effective accommodation, and you are welcome to contact me privately if you wish. Any questions please contact me.