

University of Montana

## ScholarWorks at University of Montana

---

University of Montana Course Syllabi, 2021-2025

---

Fall 9-1-2021

### WILD 346.01: Wildlife Physiological Ecology

Creagh W. Breuner

University of Montana, Missoula, [creagh.breuner@umontana.edu](mailto:creagh.breuner@umontana.edu)

Follow this and additional works at: <https://scholarworks.umt.edu/syllabi2021-2025>

Let us know how access to this document benefits you.

---

#### Recommended Citation

Breuner, Creagh W., "WILD 346.01: Wildlife Physiological Ecology" (2021). *University of Montana Course Syllabi, 2021-2025*. 1167.

<https://scholarworks.umt.edu/syllabi2021-2025/1167>

This Syllabus is brought to you for free and open access by ScholarWorks at University of Montana. It has been accepted for inclusion in University of Montana Course Syllabi, 2021-2025 by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact [scholarworks@mso.umt.edu](mailto:scholarworks@mso.umt.edu).

# WILDLIFE PHYSIOLOGICAL ECOLOGY

## WBIO 346; Fall Semester, 2021

**Instructor:** Creagh Breuner, [creagh.breuner@umontana.edu](mailto:creagh.breuner@umontana.edu)  
Office: NSA 104B or HS 104  
Office hours: by appointment, please email or set up during class

**Teaching Assistant:** Sunny Domschot, [beverly.domschot@umconnect.umn.edu](mailto:beverly.domschot@umconnect.umn.edu)  
Office: Nat Sciences, Rm 105.  
Office Hours: TBA

**Course Meets:** MWF 11:10-12:00, JRH 202

### Covid considerations:

- Mask use is required within the classroom
- Drinking liquids and eating food (which requires mask removal), is discouraged within the classroom.
- Stay home if you feel sick and/or if exhibiting COVID-19 symptoms.**
  - please send Sunny an email before lecture if you have to miss class.
- If you are sick or displaying symptoms, please contact the Curry Health Center at **(406) 243-4330**.

**Online Resources:** Class Moodle page- please check Moodle regularly for due dates and any changes or additions to the course schedule.

**Course Description** – Physiological Ecology is a multidisciplinary field concerned with the ways that individual organisms respond to physical conditions of the environment - including energy availability, temperature, solar radiation, atmospheric composition, solute concentrations, and photoperiod. When confronted with changes in environmental conditions, organisms can respond by changing their own internal conditions (physiology!) or by changing their behavior, or both. These responses can vary among individual organisms which belong to the same species, and also vary among species. This course is an introduction to those behavioral and physiological responses. Our aim is to understand how responses differ among organisms, and to understand how limitations in the ability to respond to environmental change can limit or otherwise influence the geographic distribution of animal species.

**Learning Outcomes** – This course emphasizes organismal ‘solutions’ to environmental ‘problems.’ We cover basic principles of physiology and organismal biology, and the synthesis of this information. Throughout, we emphasize readings from the primary scientific literature. By the end of this course, you should: 1) understand the nature of major environmental challenges to an organism’s homeostasis, including energy limitation, oxygen limitation, demands of metabolism, size, temperature, salt balance, and stress; and 2) gain a basic understanding of the way that biologists study physiological ecology, gather data, and communicate their findings. Exams and assignments are designed to encourage the synthesis of subject matter and assess your ability to make predictions and interpret data.

### Grading:

**Attendance:** We will take attendance every day (it is required for Covid contact tracing).

**Exams:** Exams make up 80% of your grade. There are 5 exams, but only 4 count towards your grade. Your lowest exam score will be dropped for your final grade.

**Assignments:** Assignments will be worth 20% of your grade. Each assignment will receive a +/✓+/✓/- for effort and content. Plus = 100%; check plus = 93%; check = 85%; minus = 70%

Exams:	Exam dates:
Each exam will have 21 questions:	I Monday, Sept 20 <sup>th</sup>
10 T/F (you have to correct the false statements)	II Wednesday, Oct 13 <sup>th</sup>
10 short answer	III Friday, Nov 5 <sup>th</sup>
1 discussion question	IV Wednesday, Dec 1 <sup>st</sup>
The final exam will be cumulative, but follow the same format as exams I-IV	V Friday, Dec 10 <sup>th</sup>

**Exam Policy:** No written late exams will be given. If you must miss an exam, let me know at least 1 week in advance and I will set up an exam for you to take before the scheduled date. If you are sick the day of the exam we can schedule an oral exam makeup.

## Class Notes

There are pdf files in Moodle to print out or have on your computer/tablet to help with taking notes in class. These files have all the graphs and complex figures that you need.

I will record lectures in class, but these won't have information written on the board, or show what I am pointing to on the slides. These recordings are intended only to be used as backup after attending lecture or to combine with notes from another student if you miss lecture.

## MISCELLANEOUS INFORMATION

**Accessibility:** 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.umn.edu/disability](http://www.umn.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.

**Academic misconduct** All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code <https://staging.umn.edu/student-affairs/community-standards/student-code-of-conduct-2021-pdf>

**Dropping course or changing grading status** will strictly follow the University policies and procedures, which are described in the catalog.

## Student Behavior

To maximize their likelihood of success, students should attend each lecture, and complete assigned readings before class. It is unwise simply to rely on the slides or figures posted on-line. When in class, students are expected to behave in a manner that is respectful of others. Cell phones and other electronic devices must be turned off during lecture and during exams. Texting/internet surfing during class are not permitted. If you prefer, you may use laptops or tablets to take notes during lecture – please be respectful of others when doing so. Written assignments are due at the start of class on the assigned day.

## Inclusivity statement

Sunny and I are committed to creating a safe and inclusive learning space to help students realize their full potential. We endeavor to create a learning environment that supports a diversity of thoughts, perspectives, and experiences and honors your identities (including race, gender, class, sexuality, religion, ability, etc.).

To help accomplish this:

- 1) Let us know if you have a name and/or set of pronouns that differ from those that appear in your official university records.
- 2) Do not hesitate to talk to us if you feel that your performance in class is being impacted by your experiences outside of class. If you do not feel comfortable speaking to us we will assist you with other people to contact on campus.
- 3) We (like many people) are in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that made you uncomfortable, please talk to us about it.

Thank you.