

Principles of Zoology (BIOL 1603) Syllabus

Meets: TTH 2:00pm-3:15pm Science and Engineering (SCEN) 408

Professors: Dr. Erica Westerman, pronouns: she/her/hers; Dr. Steve Beaupre (he/him/his).

Westerman Office: SCEN 732, e-mail: ewesterm@uark.edu Office hours: Tues 3:30-4:30pm, Wed 4-5pm.

Beaupre Office: SCEN 740, email: sbeaupre@uark.edu Office hours: Wed 1-2pm, Thurs 1-2pm, or by appointment.

Principles of Zoology Slack: <https://principlesofz-ipn8751.slack.com>

Course Goals: Students will learn the basic principles of zoology and learn how different groups of animals have solved common problems, including, but not limited to: development, reproduction, movement, perception, foraging, and predator defense. Students will gain a basic understanding of metazoan body plans and life histories, explore comparative zoology, and learn the biology underlying some of the most spectacular zoological oddities known today. Students will learn how animal abundance and life history data are collected, and participate in two class-wide observational experiments.

Unexpected Events Considerations: Since Spring 2020 we have learned a lot about how dynamic the global health situation can be. We have also developed tools to improve the learning environment for those who experience health or family emergencies, or would like to supplement their in-person learning experience. While Zoology will be taught in-person this year without a simultaneous virtual option, we are keeping some of the elements developed during the pandemic which we believe improve the quality and equity of this course. As we start a new semester, we would like to reflect on the fact that all of us have, and are continuing to, adjust our behaviors in ways we could never have anticipated prior to 2020. Empathy, patience, kindness, and communication continue to be important this year. Both with others and with oneself.

Please let us know if a situation arises that you feel may substantially impact your ability to learn or participate in class. There are many things that fit in this category, it is not limited to illness. We are committed to working with you through these situations.

We look forward to receiving your feedback on these efforts throughout the semester, so we can continue to make improvements as we go.

Inclement Weather Policy: The University responds to bad weather in one of three ways: (i) The University remains open, and classes are expected to meet; (ii) the University is under “inclement weather policy”, which may involve a late opening, and students and staff are expected to make their best safe effort to attend, and (iii) the University closes, and classes do not meet. Our class policy will mirror the University policy. If the University is open during our class period, we expect everyone to attend (but please put your personal safety first, we will be recording lectures). If the university is under “inclement weather”, we will make an effort to be

here and we hope you do the same - However, please do not risk your well-being. Happy, healthy, and safe is more important to us than a missed lecture. If the University closes, stay home, bake some cookies. The UA policy and current status with respect to inclement weather can be obtained on the UA website.

Main Forms of Assessment:

Exams (64%): 3 midterm exams (16% each), 1 cumulative final exam (16%).

Homework (21%):

- Short introductory video (2%). This video should be 2-3 minutes, and include you introducing yourself. In this video, you should include your name, what you would like to be called if it differs from your name, your major and academic year, why you are taking Zoology, what you hope to do after you graduate ("I don't know" is a perfectly acceptable answer!) and your favorite animal and why. Due by midnight, August 29th.
- Study guide for 1 of the 21 lectures (assigned by last name) (3%). These study guides should be 1-2 pages, and are due by midnight 2 days after the class time of the assigned lecture (ie 48 hrs + a bit). They will be graded based on usefulness and clarity of thought.
- Three short answer style questions and answer key which can be used by classmates as review material based on a different lecture (assigned by first name) (3%) These questions are also due by midnight 2 days after the class time of the assigned lecture (48 hrs + a bit).
- One question you have about course material submitted for each of the three review sessions (3 questions total) (3%).
- Butterfly Survey Collection (5%). A 30-minute walk, outside, recording butterflies, their abundance, color, size, and behavior.
- Pier Observation Survey Collection (5%). 3 5-minute observations of an underwater live-camera off the coast of Florida, recording fish abundance, size, pattern, and behavior.

In class (10%): Participation in assessment test at beginning of class (5%- full credit for participation in this assessment exam), and end of class (5%-broken down to: 2.5% for participation in this assessment exam, an additional 1% for any improvement on your original score, and the full 5% for an improvement of 10% or greater. Students will also receive the full 5% if they score a 90% or higher on the exam.).

Pre-class quizzes (10%): There will be a ~5 minute pre-class quiz on the previous lecture's material for all lectures. These quizzes will be available for the two hours immediately preceding class (noon-2pm CST) on Blackboard, and we will go over the answers to the quizzes in class. The quiz on Aug 30 will be on the Syllabus. The lowest 3 scores will be dropped.

There are **5% extra credit points built into course assessment**, thus there will be no extra credit offered at the end of the semester.

Exam make-up policy: If, for some reason, you have an excused absence that coincides with an exam, you need to contact Dr. Westerman (Exam 1, Exam 2, Final) or Dr. Beaupre (Exam 2, Exam 3, Final) to schedule a make-up exam, preferably 1 week prior to your absence, or within 48 hours after your absence (emergencies only!). *Make-up exams are likely to be in essay*

format. Since 3 absences are allowed for quizzes, make-up quizzes are only allowed in extreme circumstances.

Late work policy: 10% deducted for every day an assignment is late, up to 9 days. Please do submit late work! At the end of the day, 50% is vastly superior to 0%.

Text: Integrated Principles of Zoology 19th Edition by Hickman, Roberts, Keen, Eisenhour, Larson and l'Anson

General Course Format: TTH class (lecture, discussion, pre-class quizzes, group Q&A)

Schedule

Week 1 (8/22-8/24): **T** Introduction to Zoology, discussion of syllabus (ELW/SB) **TH** Assessment test

Reading: Chapter 1 (all)

Week 2 (8/29-8/31): **T** Introduction to Metazoa, Genetics (ELW) (**Videos Due**) **TH** Reproduction (ELW)

Reading: Chapters 5 (all), 7 (pg 137-149)

Week 3 (9/5-9/7): **T** Development (ELW) **TH** Evolution (ELW)

Reading: Chapters 8 (pg 158-176), 6 (all)

Week 4 (9/12-9/14): **T** Body Plans and Phylogenies (SB) (questions for review session due by midnight) **TH** Review (ELW/SB)

Reading: Chapter 9 (all, but skip figures on pg 195/196), 10 (all)

Week 5 (9/19-9/21): **T** Exam **TH** Sponges and Placozoans, explanation of field experiment (ELW)

Reading: Chapter 12 (all)

Week 6 (9/26-9/28): **T** Ctenophores (ELW) **TH** Cnidarians (ELW)

Reading: Chapter 13 (all) **Conduct Data Collection**

Week 7 (10/3-10/5): **T** Platyhelminthes (data sheets due at end of class) (ELW) **TH** Rotifera, Bryozoa & Brachiopoda (review questions due by midnight) (SB)

Reading: Chapters 14 (pg 299, 301-317, 320-323), 15 (pg 329--336)

Week 8 (10/10-10/12): **T** Review Session (ELW/SB) **TH** Midterm

Reading: NA

Week 9 (10/17-10/19): **T** Fall Break (no class) **TH** Molluscs, explanation of virtual experiment (SB)

Reading: 16 (all, focus on Polyplacophora, Gastropoda, Bivalvia, Cephalopoda), Chapter 17 (all)

Week 10 (10/24-10/26): **T** Annelids (SB) **TH** Annelids, Nematodes, Arthropoda (SB)

Conduct Data Collection

Reading: Chapters 18 (pg 395-404),19 (pg 413-425)

Week 11 (10/31-11/2): **T** Crustaceans, Chelicerata data due by end of class (SB) **TH** Hexapods (Insects) (Guest Lecture, Dr. Keity Farfán Pira)

Reading: Chapters 20 (all), 21 (all)

Week 12 (11/7-11/9): **T** Echinoderms (SB) **TH** Midterm

Reading: Chapter 22(pg 484, 486-503)

Week 13 (11/14-11/15): **T** Chordata I (Tunicata) (SB) **TH** Chordata II (Fishes) (SB)

Reading: Chapters 23 (pg 509-521), 24 (all)

Week 14 (11/21-11/23): **T** Chordata III (Terrestrial Vertebrates)* (SB) **TH** Thanksgiving Break (no class) *Tuesday class will be live streamed to facilitate attendance during holiday travel

Reading: Chapters 25(all), 26 (all)

Week 15 (11/28-11/30): **T** Chordata IV (SB) (Terrestrial Vertebrates II) (review questions due by midnight) **TH** Clean Up and Review (SB)

Reading: Chapters 27 (all),28 (pg 623-641)

Week 16 (12/5-12/7): **T** Assessment test **TH** Class data and our changing world (ELW/SB)

Reading: none

Final Exam: TBD (Exam week, at time listed in official University of Arkansas Exam Schedule)

University of Arkansas Academic Honesty Statement (from

<https://honesty.uark.edu/index.php>)

As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's 'Academic Integrity Policy' at honesty.uark.edu/policy. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

Honesty Regarding Zoology Exams and Quizzes Fall 2023

Exams: Students must take exams on their own. They are not allowed to work in groups or to utilize the internet or phone or any answering service during exams for Zoology. Any evidence of doing so is in violation of class policy and the University of Arkansas Academic Honesty Statement. However, students are allowed to bring 1/2 page, front and back, of notes for exams, to assist with memory.

Quizzes: Pre-class quizzes are timed, and open note. Students are allowed to work in groups for pre-class quizzes, in addition to using their notes. However, students are not allowed to utilize the internet or phone or any answering service during quizzes. Any evidence of doing so is in violation of class policy and the University of Arkansas Academic Honesty Statement.

Statement Regarding Note Selling and Distributing

There are companies that will try to lure you into selling the notes you take in this class. Don't let these companies take advantage of you. Selling your notes on our lecture material or exams, to anyone, including to any commercial service, is a violation of our intellectual property rights and/or copyright law as well as a violation of the U of A's academic integrity policy. Continued enrollment in this class signifies intent to abide by the policy. Any violation will be reported to the Office of Academic Initiatives and Integrity.

Names and Inclusion: Many people go by names other than their legal first or last name. If you would like us to address you by a name other than that listed in University records, please let us know. Also, please let us know if there are specific pronouns you would like us to use.

E-mail: Dr. Westerman's e-mail address is Ewesterm@uark.edu. Dr. Beaupre's e-mail address is sbeaupre@uark.edu. We will answer your e-mails in as timely a fashion as possible. However, since neither of us can answer your e-mails while simultaneously spending quality time with our families (one precludes the other), we will not answer e-mails after 7pm, or between 5pm Friday and 5pm Sunday.