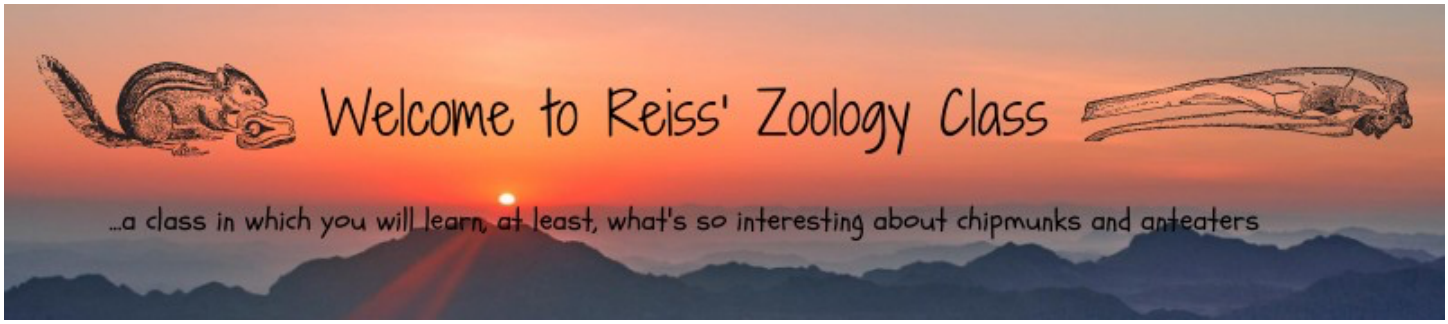
Spring 2025

BIOL 4 - General Zoology with Lab



Course Information

Semester & Year: **Spring 2025**
Course ID & Section #: **BIOL-4-E8312**
Instructor's name: **Dr. Karen Reiss**
Day/Time of required meetings: **LECTURES M/W 8:30-9:35; LABS T/Th 10-1:10**
Location: **LECTURES SCI 210; LABS SCI 102**
Course units: **4**

NO Prerequisites

Instructor Contact Information

Office location: **SCI 216B**
Office hours: **TBD and by appointment**
Phone number: **707-476-4220**
Email address: **karen-reiss@redwoods.edu (mailto:karen-reiss@redwoods.edu) or message in Canvas (preferred)**

Catalog Description

A course intended for majors, covering the comparative structure, function and evolution of animal phyla and non-photosynthetic, single-celled, eukaryotic taxa. Topics include phylogeny, development, morphology, physiology, and behavior, as well as principles of evolution, mechanisms of evolutionary change, and speciation.

Course Student Learning Outcomes

1. Explain the essential elements of animal life, major hypotheses for animal evolutionary history, and mechanisms for the diversification of animal life.
2. Compare and contrast the development, life cycles, anatomical and physiological characteristics of major taxa of animals as well as selected non-photosynthetic unicellular eukaryotes.
3. Evaluate the ecological relationships of animals to each other and their environments.
4. Describe, identify key characteristics, and classify representative specimens to Phylum, or when appropriate, lower taxonomic levels.
5. Apply the processes of scientific inquiry, phylogenetic analysis, and experimental design to the diversity of animals.

Course Mechanics

Course Materials

Hickman et al., *Integrated Principles of Zoology, 19th Ed. WITH CONNECT*

This is your main textbook for the course. You will need access to the book's *Connect* site so the most inexpensive option is to purchase *Connect* with the eBook. If you **click on *Connect* in Canvas** you'll be taken to their website where you can make your purchase, or you can purchase through the bookstore.

Smith and Schenk, *Exploring Zoology 3rd Edition*

This is your main resource for labs. The eBook is fine but recommended only if you have a tablet. Used copies are fine too.

You will also want a fat **3-ring binder** lab notes, maybe a separate **3-punch spiral** notebook for lecture, some **colored pencils** or pens, and eventually, a **lab coat** or scrubs and a **box of nitrile gloves**.

Course Organization

The course is organized into three units*.* Unit 1 covers fundamentals of animal biology, Unit 2 focuses on the evolution of the invertebrate animals and animal organ systems, and Unit 3 focuses on vertebrate evolution, structure, and function.

Each week we will typically cover two topics in lecture and have two lab assignments and have one online quiz. Lectures are mandatory...you will not pass the class if you miss lectures. Labs usually reflect directly on the lecture material. The topics for each day's lecture and lab are on your paper schedule. Most lab assignments are in the *Exploring Zoology* lab manual but a few are based on handouts posted on *Canvas* or other resources. At the end of each week I'll post an online *Connect* quiz on *Canvas* that will provide a low-stakes assessment of your learning and retention. *You only get one shot at each quiz*, so be sure to review the week and have all your notes handy before you take it.

I highly recommend that you create a schedule in which you pace your prep and review time. This is a high content course meant to prepare you for more advanced work in biology. We will talk a lot about study strategies, but in general I recommend:

- Come to lecture Monday and take good notes.
- Do the reading for Monday's lecture after lecture. Read for the story and what resonates with the lecture…don't highlight or underline or take copious notes…yet.
- Skim Tuesday's lab assignment, read the introduction thoroughly, and familiarizeyourself with the required terminology, usually taxon names and anatomical structures.
- Come to Tuesday's lab and follow directions carefully and thoughtfully answer allembedded questions, ideally through discussion with your lab mates. Also, quiz each other on the required terminology.
- Repeat for the second lecture/lab combo of the week.
- Review your lecture and lab notes.
- Take your quiz.

Creating a well-paced study schedule will help you see the big picture and facilitate the movement of new material from short-term to long-term memory. This will save you time and make you more successful in the long run.

There is a pair of exams during lab time at the end of each unit. A "written" exam will consist of a variety of questions: matching, fill in the blank, labeling, sketches, definitions, explanations requiring a paragraph, short essays…everything but multiple choice! A "practical" exam will be specimen-based and will require that you identify specimens to taxonomic group or identify various anatomical structures and describe their functions.

You will write a paper that reflects original research into a topic of your choosing that will serve as your final exam.

Evaluation & Grading

If you earn 90-100% of total points you will receive some flavor of A; 80-89% earns a B; 70-79% earns a C; 60-69% earns a D; < 60% results in a grade of F. There is no curving, extra credit, or otherwise creative grading. The breakdown is as follows:

Unit Exams:	**Written**	3 x 10	300
	Practical	3 x 100	300
Weekly Quizzes		15 x 20 minus 2 lowest scores)	260
Occasional Homework Assignments			40
Final Paper			100
TOTAL			1000

Exam Make-Up Policy

For weekly quizzes, there will typically be a multi-day window within which they are available, and then they close Sunday night at midnight. Once you open a quiz it must be completed within a specified time frame (usually 45 minutes). It is up to you to find a good time that doesn't conflict with other aspects of your life when you can work in an uninterrupted fashion.

If something *serious* comes up and you can't take your quiz or exam, *talk to me*. I can reopen a quiz for you to give you a time extension. For exams, y***ou must contact me BEFORE the exam begins AND have a serious and verifiable excuse*** to qualify for a makeup exam:

- ***Contact me*** by leaving a message on email or phone voicemail.
- ***Serious excuses include*** emergency room visits, quarantine due to contagious infectious disease, and deaths in the family.
- ***Verifiable means*** you have a doctor's note, a police report, or some other form of evidence.

The makeup written portion will be similar to what your classmates took but the practical portion will be a face-to-face oral exam with me. The practicals take hours to set up and I won't set one up just for you…sorry.

Fake Student Policy

Fraudulent enrollments are on the rise. To ensure that real students can get seats in the class, no shows will be dropped in the middle of the first week of classes. Also, if you are suspected of being a bot, you will be dropped from the class. If you have been dropped but are a real student, please contact your instructor right away to be reinstated in the class.

Spring 2025 Dates

Date	To Remember
January 17	Last day to register for classes (day before the first class meeting)
January 18	Classes begin
January 20	Martin Luther King's Birthday (All Campuses Closed)
January 24	Last day to add a class
January 31	Last Day to Drop & Receive a Refund
February 2	Last Day to Drop w/out a “W”
February 3	Census Date (20% of class)
February 14	Lincoln's Birthday (All Campuses Closed)
February 17	President's Day (All Campuses Closed)
March 6	Last Day to Petition to Graduate & Petition for Certificate
March 17-22	Spring Break (No Classes)
March 28	Last Day for Student/Faculty Withdrawal
March 31	Cesar Chavez Day (District Wide Closure)
May 10-16	Final Examinations
May 16	Last Day to File P/NP Option
May 16	Semester Ends
May 23	Grades Due
May 30	Grades Available for Transcript Release (approximate)

Important Spring 2025 Academic Dates

Academic Dishonesty

Truth matters! Cheating sucks!

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (**AP 5500** (https://go.boarddocs.com/ca/redwoods/Board.nsf/goto?open&id=C9RVCG801790)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the **College Catalog** (https://www.redwoods.edu/academics/catalog.php) and on the **College of the Redwoods website** (https://www.redwoods.edu/) .

A couple of common pitfalls:

- Many students don't realize that complicity…allowing or encouraging cheating…is as badas being the one doing the cheating.
- Many students don't understand that using a Wikipedia or ChatGPT-type answer…even ifcited…is plagiarism.
- Many students don't realize that we professors KNOW that companies like Chegg will allowyou to pay for access to answers to questions in popular textbooks like your lab manual.
- Not only is this cheating, but their answers typically suck!

AI Use Class Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. However, overuse of these tools in this class can undermine your learning and curtail the development of your critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, the policy of this class is that **AI cannot be used at any point in the completion of class assignments**, including discussion posts. Any or all of your assignment submissions and discussion posts may be screened by AI detection software, but the real penalty for AI misuse is that you will miss out on an opportunity to learn.

Disruptive Behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (**AP 5500 (https://go.boarddocs.com/ca/redwoods/Board.nsf/Public?open&id=policies)**) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the **College Catalog (https://www.redwoods.edu/academics/catalog.php)** and on the **College of the Redwoods website (https://www.redwoods.edu/)** .

Diversity, Equity, Inclusion, Access, and Anti-Racism

Each of us is responsible for creating and maintaining inclusive environments. Inclusive environments require us to work to identify, examine, and limit the ways our implicit social biases impact our actions, and require us to work to recognize how the way we use language can be welcoming to others, or can exclude them, often unintentionally. Learning can happen when diversity and individual differences are understood, respected, appreciated & recognized as a source of strength, benefit and resource. Incidents of bias, discrimination, and microaggressions do occur, whether intentional or unintentional. CR encourages anyone who experiences or observes environments at our college that become unfair or hostile on the basis of peoples' identities to speak out for justice and support. Speaking out can take place within the moment of the incident or after the incident has passed.