



Survey of Zoology (BioSci 100) — Spring 2024

Scope and focus: This course is meant to introduce *non-biology majors* to the wild world that is the Animal Kingdom. Students will learn about classification, natural history, anatomy, and ecology of animals. The course consists of **on-line lectures** that cover all currently living animal groups (phyla), and a two-hour weekly **in-person laboratory** that focuses on animals living in Wisconsin. All parts of the course will include some memorization of animal taxonomy. **Lecture 60% & Lab 40% of final grade.**

The course WILL satisfy the natural science laboratory requirement in Biology for non-majors. It does **NOT** count as credit toward the major in Biological Sciences!

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Lecture: Tue – Thurs 2:30 – 3:20 pm	Lab Sections 801: Mon 9:30am 802: Mon 11:30 am 803: Mon 1:30 pm	Lab Sections 804: Wed 9:30am 805: Wed 11:30 am 806: Wed 1:30 pm	Lab Sections 807: Thurs 9:30 am 808: Thurs 11:30 pm 808: Thurs 3:30 pm
Office: Lapham N517 Office Hours: Mon 2:30 – 3:30 or arrange via email	Office: Lapham S292 Office Hours: Wed 4:30-5:30pm Thu 10:30-11:30am	Office Hours: ONLINE and by appointment	Office: Lapham S292 Office Hours: Tues 11am-1pm or by appointment

Lecture: In class Lap 162 Tue – Thurs 02:30 – 3:30

Lecture material posted on CANVAS.

Lecture Text: no required textbook. If you wish to consult a textbook,
Animal Diversity, any edition, by Hickman/Roberts/Larson; McGraw Hill

You must enroll in and attend one of the lab sections for this course.

Lab: In Person - Lapham Hall S172. Lab material posted on CANVAS students are provided with lab worksheets and lab report templates in lab

Access to course materials: combined Lecture & Lab CANVAS course website

Class schedule (Lecture & Lab)

Week	Week of	Lecture Topic	Lab Topics
1	Jan 23 Jan 25	Introduction Scientific method	No in-person lab this week!
2	Jan 30 Feb 1	Animal Architecture Protozoans	Animal Body Plans (Body symmetry & support)
3	Feb 6 Feb 8	Porifera & Placozoa, Cnidaria & Ctenophora	Microscope & Protists
4	Feb 13 Feb 15	"Major" worms "Minor" & "Tufted" Worms	"Wonderful Worms"
5	Feb 20 Feb 22	Mollusks Smaller Ecysozoa	Mollusks
6	Feb 27 Feb 29	Arthropods I - Myriapoda & Chelicerata 1Arthropods II – Crustacea & Hexapoda	Fishes
7	Mar 5 Mar 7	Echinoderms Hemichordates & Chordates	Amphibians & Reptiles
8	Mar 12 Mar 14	Jawless & Cartilaginous Fishes Bony Fishes	Birds
9	Mar 19 Mar 21	Spring Break	
10	Mar 26 Mar 28	Amphibians I Amphibians II	Mammals
11	Apr 2 Apr 4	Reptiles I Reptiles II	Favorite Animal Presentation (Group 1)
12	Apr 9 Apr 11	Birds I Birds II	Favorite Animal Presentation (Group 2)
13	Apr 16 Apr 18	Mammals I Mammals II	Arthropods Set up Ecoflask
14	Apr 23 Apr 25	History of Life on Earth Evolution	Eastside Arthropods
15	Apr 30 May 2	Ecology I Ecology II	Ecoflask Observations
16	May 7 May 9	Does climate change affect animal distribution? Climate change and its impact on life	No Lab

Grading: Lecture (60% of final grade; **180** pts+2 extra bonus points) + **Lab** (40% of final grade; **120** pts) = **300** pts

(1) No Exams; also, no final exam

- (2) **Fourteen (14) lecture quizzes** will be given (one per week). Each lecture quiz is weighed equally and covers material from the two lectures of the respective week. Quizzes include matching, true/false and multiple choice questions. Quizzes are **online, 13 Questions, time limited to 15 min** once started.
- (3) Lab grades come from **ten (10) lab exercises** [10 pts each, generally split between **lab report** (6pts) and **lab quiz** (4 pts)] and **one (1) in-class presentation** (20 pts).
- (4) **Lab reports** are completed in lab and handed in for grading.
- (5) **Lab quizzes** are **online, 8 Questions, time limited to 10 min** once started. Quizzes include matching, true/false and multiple choice questions.
- (6) All quizzes (lecture and lab) are **due Sunday at 11:59 pm** of the respective week; 20% per day **late penalty** (i.e., if you forget a quiz due date, you can get partial credit for taking it late).
- (7) **No make-up quizzes**. No exceptions.

LECTURE EXTRA CREDIT: The first quiz, associated with the intro lecture, is optional, but carries 8 extra points towards the lecture grade; due date is Sunday, Jan 28th @11:59pm..

LAB EXTRA CREDIT: “Zoo challenge” is due during last week of labs; it carries 10 pts (same as a regular lab); it can be used to make up for a missed lab, or to boost the lab grade.

Ecoflask – Five (5) bonus points

Course grades will be assigned following the scale below:

A 93-100%	A- 90-92%		
B+ 87-89%	B 83-86%	B- 80-82%	
C+ 77-79%	C 73-76%	C- 70-72%	
D+ 67-69%	D 63-66%	D- 60-62%	F 0 - 59%

LAB

Lab Worksheets: During each lab you will complete a worksheet guiding you through the lab activities. Worksheets are provided in lab.

Lab Reports: During each lab you will complete a report based in the lab activity. Reports are handed in at the end of lab and graded. Each lab report is worth 6 pts. If you don't attend lab, you cannot hand in a lab report.

Lab Quizzes: Quizzes examine the material covered during lab intro lectures and in-class activities. Take careful notes on the worksheet provided with each lab activity to prepare for the quizzes. . Quizzes are completed online via Canvas and consist of 8 questions. If you did not attend the lab associated with a quiz, you cannot get credit for that quiz. **NO MAKE-UP QUIZZES WILL BE GIVEN!!!!**

Favorite Animal Presentation: The overarching objective of this course is to introduce you to the exciting and dynamic world that is the animal kingdom. One way to do this is to require you to dig deeper on something you are passionate about, your favorite animal! For this assignment, you will be responsible for creating a 3-5 minute presentation to the class that details the Natural History of your favorite animal. This mandatory assignment is 20 points. **Ask your TA for due dates for presentation proposals and final file submission.**

Zoo Challenge: This assignment is *optional* and will be worth 10 extra pts. A hard copy of the assignment is due **at the beginning of the last lab (week 15 and is NOT accepted late – no exceptions. Canvas can also be used to turn in the assignment online.** You will have to take this trip outside of class, either on your own or with others. This assignment consists of a series of questions that you will have to answer based on the informational displays at each exhibit in the Milwaukee Zoo. This is a chance for you to see some of the critters we've discussed in lab up close and personal. *Please note that while you can work with your lab partner, each of you must turn in your own UNIQUE answer sheets. Do not hand in two copies of the same zoo challenge.* **You must also **provide proof of your admission to the Zoo** by turning in your receipt or a picture along with your answers.

Note: Admission to the zoo is offered **free on some dates throughout the year.**

Check the Zoo website when they are offered this year.

Absences: Can only be made up under EXTREMELY extenuating circumstances. If you must miss a lab, **notify your instructor** as early as possible (in advance of the absence if at all possible). In order to make up a lab in a different section, you **MUST** contact that instructor and obtain permission to attend.

Lab Safety: No food or drink is allowed in lab. In case of emergency, inform your instructor. If no instructor is available, inform the front desk at the Biological Sciences office and call security on the campus phone by dialing 9911.

Special Accommodations:

If you need special accommodations in order to meet any of the course requirements, please contact the course instructor as soon as possible, and see this link:

<http://uwm.edu/arc/>

STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE ENGINES IN COMPLETING COURSE ASSIGNMENTS:

The use of Artificial Intelligence (AI) is not allowed in this class. AI use to assist in assignment completion in part (e.g., generating ideas, brainstorming, summarizing information) or in whole (e.g., submitting direct text from an AI source) is considered Academic Misconduct as defined by *UWS Chapter 14*.

UWM RESOURCES FOR STUDENTS:

Support U: Any student in need, or students that face challenges that are barriers to their education, are encouraged to contact the Dean of Students (dos@uwm.edu) for support. Support U offers wrap-around holistic support for students, including basic needs, accessing the food pantry, emergency funding, case management, and connecting to resources, etc. Support U is run by the Dean of Students Office. Also see UWM's [Mental Health Resources website](#)

UNIVERSITY AND DEPARTMENTAL POLICIES:

The Secretary of the University maintains an up-to-date list of policies at <https://uwm.edu/secu/syllabus-links/> These policies pertain to students with disabilities, absences due to religious observation, students called to active military duty, incompletes, discriminatory conduct, Title IX, academic misconduct, complaint procedures, grade appeal procedures, LGBTQ+ resources, and final exam policies. Please refer to these policies and reach out with any questions you have.

1. *Students with disabilities.* The Accessibility Resource Center at the University of Wisconsin Milwaukee is dedicated to providing equal access to students with disabilities in all academic, social, cultural and recreational programs. Please notify the Professor, and see this link: <http://uwm.edu/arc/>
2. *Religious observances.* Students who will miss class due to religious observances should make arrangements with the Professors or Lab TAs to make up missed work. <https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-2.%20Accommodation%20of%20Religious%20Beliefs.pdf>
3. *Students called to active military duty.* If you are called to active military duty, please contact the Professors to make arrangements for accommodations for absences.

Students: <https://uwm.edu/onestop/students-called-to-active-duty/>

Employees: <https://www.wisconsin.edu/ohrwd/download/policies/ops/bn9.pdf>

4. *Incompletes.* A notation of "incomplete" may be given in lieu of a final grade to a student who has carried a subject successfully until the end of a semester but who, because of illness or other unusual and substantiated cause beyond the student's control, has been unable to take or complete the final examination or to complete some limited amount of term work.

<https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-13.%20Incomplete%20Grades.pdf>

5. *Discriminatory conduct.* Discriminatory conduct will not be tolerated by the University. It poisons the work and learning environment of the University and threatens the careers, educational experience, and well-being of students, faculty, and staff. <https://apps.uwm.edu/secu-policies/storage/other/SAAP%205-1.%20Discriminatory%20Conduct%20Policy.pdf>

6. *Title IX/Sexual Violence.* Title IX is a federal law that prohibits sex discrimination in education program or activities, and UWM policy prohibits such conduct (see Discriminatory Conduct, above). This includes sexual violence, which may include sexual harassment, sexual assault, relationship violence, and/or stalking in all educational programs and education-related areas. UWM strongly encourages its students to report any instance of sex discrimination to UWM's Title IX Coordinator (titleix@uwm.edu). Whether or not a student wishes to report an incident of sexual violence, the Title IX Coordinator can connect students to resources at UWM and/or in the community including, but not limited to, victim advocacy, medical and counseling services, and/or law enforcement. For more information, please visit: <https://uwm.edu/sexual-assault/>.

7. *Academic misconduct.* Cheating on exams or plagiarism are violations of the academic honor code and carry severe sanctions, including failing a course or even suspension or dismissal from the University. <https://uwm.edu/deanofstudents/academic-misconduct-2/>

8. *Complaint procedures.* Students may direct complaints to the head of the academic unit or department in which the complaint occurs. If the complaint allegedly violates a specific university policy, it may be directed to the head of the department or academic unit in which the complaint occurred or to the appropriate university office responsible for enforcing the policy. <https://apps.uwm.edu/secu-policies/storage/other/SAAP%205-1.%20Discriminatory%20Conduct%20Policy.pdf>

9. *Grade appeal procedures.* A student may appeal a grade on the grounds that it is based on a capricious or arbitrary decision of the course instructor. Such an appeal shall follow the established procedures adopted by the department, college, or school in which the course resides or in the case of graduate students, the Graduate School. These procedures are available in writing from the respective department chairperson or the Academic Dean of the College/School. <https://apps.uwm.edu/secu-policies/storage/other/SAAP%201-10.%20Grade%20Appeals%20by%20Students.pdf>

10. *LGBT+ resources.* Faculty and staff can find resources to support inclusivity of students who identify as LGBT+ in the learning environment. <http://uwm.edu/lgbtrc/>

11. *Smoke and Tobacco-Free campus.* UWM prohibits smoking and the use of tobacco on all campus property. <https://apps.uwm.edu/secu-policies/storage/other/SAAP%2010-8.%20Smoke%20and%20Tobacco-Free%20Campus%20Policy.pdf>

12. *Navigate Student Success Platform and Mobile App*

Students are encouraged to use a tool called Navigate. This tool can help you learn about academic resources, set up study groups in your courses, make appointments with your academic advisor, get reminders on important dates, and much more. In addition, Navigate allows instructors to send Progress Reports to students throughout the term, allowing for updates on your academic progress in a course in addition to your grade. You can log into the platform here: <https://uwmilwaukee.campus.eab.com/> or by finding the Navigate link under the Current Students tab on the [UWM home page](#). More information on how you can use Navigate and the app, including tutorials, can be found on [UWM's Navigate website](#).

Panther Community Health and Safety Standards: UWM has implemented health and safety protocols, taking into account recommendations by local, state, and national public health authorities, in response to the COVID-19 pandemic. Additional details about student and employee expectations can be found on the [UWM COVID-19 webpage](#).

DEPARTMENT OF BIOLOGICAL SCIENCES MAJORS INFORMATION

UWM's Department of Biological Sciences is home to the study of diverse aspects of Biology and Life Sciences. There are several ways students can tailor their major to specific interests and career goals. First, there are two undergraduate majors - Biological Sciences and Microbiology. Within Biological Sciences, students can choose the General Biology option for a wide breadth of electives, or they may choose to

specialize with either the Cell and Molecular Biology (CMB) or Ecology, Evolution and Behavior (EEB) options. The Department of Biological Sciences also contributes to the interdisciplinary major in Conservation and Environmental Sciences.

- The **Biological Science major, CMB option** is a popular for students who intend to go on to a professional life sciences program such as medical school, veterinary school, or dental school, and for students interested in forensic science and biotechnology. It is also the choice of students wishing to double major in Neuroscience.
- The **Biological Sciences major, EEB option** prepares students with the competitive skill sets they need to succeed in a wide variety of careers including biodiversity conservation, biotechnology, public health, natural resource management, environmental consulting, education (e.g., schools, museums, nature centers), government agencies, nonprofit programs, and graduate programs. The EEB option can be readily combined with a major in Conservation and Environmental Sciences.
- The **Biological Sciences major, General Biology option** provides broad course choices for students who find all areas of Biology exciting and want to explore diverse interests in multiple areas of study.
- The **Microbiology major** allows students to be on the cutting edge of developments in public health, industrial production processes, biotechnology, and drug discovery. The Microbiology major prepares students for a variety of careers in the fields of microbiology, virology, molecular biology, biotechnology, and health-related professions, for graduate studies in medical microbiology, industrial microbiology, environmental microbiology, microbial biotechnology, and molecular biology, and for professional studies in pharmacy, dentistry, and medicine.

A detailed listing of the requirements and recommended courses for the Biological Sciences majors can be found at <https://uwm.edu/biology/undergraduate/>.