

# BIO 171: Animal Biology (5 credits)

UWSP at Marshfield (Spring 2019)  
Lecture: MW 1:00pm-2:15pm, room 131  
Lab 1: TTh 10:00-11:50 am, room 217 Leopold Building  
Lab 2: TTh 1:00-2:50 pm, room 217 Leopold Building

**Instructor:** Dr. Laura Lee

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email: [laura.lee@uwc.edu](mailto:laura.lee@uwc.edu)  
office hours: MW 11-12

If you cannot find me in my office, please leave a note. I am also available for appointments at other times.

**Required Texts:** Biology 2nd Ed. By Clark, Choi, & Douglas - Open access (see below).  
Exploring Biology in the Laboratory (3<sup>rd</sup> ed.), by Pendarvis & Crawley, Morton pub.  
**Optional:** Photographic Atlas for the Zoology Laboratory, Morton pub.

## Course Description & Objectives:

BIO 171 is a demanding introductory biology course intended for both majors and non-majors. This course fulfills one of the first course requirements for biology and natural resources majors, and serves as a prerequisite for many upper-level health professional courses. The overall goal of this course is for students to develop an understanding of the concepts, terminology and techniques used in the field of animal biology. This will be accomplished through a combination of lectures and laboratory applications. Some of the topics to be covered include animal ecology and behavior, anatomy and physiology, animal classification, evolution, genetics and environmental science.

### Course Objectives:

1. To understand the relatedness of structure and function, and to differentiate and classify animal structures, body-plans, and physiologies.
2. To gain useful laboratory and field skills, including microscope use, field measurements, and dissection techniques.
3. To integrate various levels of biological organization and their emergent properties.
4. To explain and demonstrate the process of scientific inquiry, and how it is different than other intellectual endeavors.
5. Recognize cell theory, inheritance, evolution and developmental biology as foundations of zoology, and how they explain the change in animals over time.
6. To understand the role that animals play in ecosystems, and how they interact with both the living community and the physical environment around them.
7. To apply principles of zoology to broader personal and societal issues, and to draw connections between various course concepts.

## Notes & Study Aids:

Good news: your textbook for this class is available for free online! Your book is available in web view and PDF for free (Biology 2e from OpenStax, <https://openstax.org/details/books/biology-2e>). You can also purchase on iBooks, or purchase a print version from the Open Stax website on Amazon.com, or from the campus bookstore. You can use whichever formats you want. Web view is recommended -- the responsive design works seamlessly on any device. But, whichever form you get it in, make sure to use it! Every student has good intentions at the beginning of the year in terms of reading and studying. But, by the end of the semester, many textbooks remain unused. I know you'll get busy and want to blow off reading, but I expect you to use your textbook! Do the assigned reading either before or after class. The online version of the textbook

has embedded links and videos to aid in your understanding. Additionally, you **MUST** have the lab manual in order to succeed in this class. Read the lab manual before coming to class to do a dissection or other activity.

This course is taught using Desire to Learn (D2L) as an instructional aid. You should all be provided with a login and password, and have access to the BIO 171 D2L site – please use the lecture site, not the individual lab sites. Modules for each topic include lecture outlines, objectives and web links. You can also find announcements, practice exam questions, and information about assignments and labs to read or print out. In the past, students who use D2L tend to “get more” out of class, and are better prepared for exams and assignments.

### Assessment:

Course grades: In order to foster increased understanding of course material, lecture and lab material will be integrated throughout the semester as much as possible. Therefore, all exams, quizzes and most assignments will contain both lecture and lab components. The fact that you do not have separate lab exams is **NOT** a reason to blow off the lab portion of this course! Take your time looking at slides, analyzing data, etc., because this information **WILL** show up on exams! Points will come from exams, weekly in-class quizzes (lowest score dropped), take-home quizzes before each exam, a final exam, one group project (50 pts), and miscellaneous assignments and lab activities. You will have the opportunity to improve your grade on any **ONE** exam by reworking it as a homework assignment (more details on D2L). Extra credit points will be available during the semester (see Extra Credit instructions on D2L). All assignments should be handed in on time – points will be deducted for late assignments. **All late assignments must be turned in before the next exam!** Makeup exams will **not** be scheduled unless arrangements have been made with me personally. Quizzes **cannot** be made up after the fact, but early quizzes can be taken in the case of instructor-approved absences. The final grade distribution will be as follows:

92-100% = A	78-79.99% = C+	60-61.99 = D-
90-91.99% = A-	72-77.99% = C	<60% = F
88-89.99% = B+	70-71.99% = C-	
82-87.99% = B	68-69.99% = D+	
80-81.99% = B-	62-67.99% = D	

Group Presentation Assignment: At the end of the semester, all students will participate in a group presentation project. Groups will range in size from 3-5, but all group members must participate equally. The presentation topic is to be chosen by the group; it is flexible, but must have something to do with the interactions between animals and people (i.e. endangered species, other dangers to wildlife, conservation, management, etc). Each presentation will last 10-15 minutes (including time for questions); points will also be awarded for presentation style, originality/creativity, and providing a list of valid references. Style of the presentation (poster, power point, video, etc.) is up to each group. A more detailed assignment description and grading rubric will be distributed mid-semester.

University-wide assessment: For the 2018-19 academic year, UW Colleges classes that fulfill outcomes at the Foundation Level of the UWSP [General Education Program](#) (GEP) will be assessed utilizing the GEP assessment portfolio process. BIO 171 is an investigation level course for the GEP (**category learning outcomes**) and will not be part of GEP assessment this year.

### Policy on Phones & Electronic Devices

Phones are **NOT** to be used during class unless I instruct you to take them out for a class-related exercise. If you must be available for work/family, please leave phones in your pocket on vibrate. Laptops, tablets and other devices may be used for the sole function of following along with lecture or other course-related activities. Violations of this rule will result in this privilege being revoked.

**Course Attendance and Accommodation Policies:**

You are expected to attend all class sessions. You are responsible for all lecture and lab material, whether or not you are actually in attendance. The consequence of poor attendance is likely to be failure in the course, because of the amounts and complexity of the material. In addition, I strongly recommend attendance for every lab activity; you may or may not be able to make up missed labs, depending on the nature of the lab. If you miss a lab, you **MUST** make it up before you can turn in any assignment pertaining to that lab.

Any student who cannot be present for a scheduled exam or lab session due to a religious observance will be provided with an alternate way of fulfilling that particular course requirement, providing the student notifies me of the scheduling conflict within the first ten days of the class. I am also always willing to work (to the extent allowed by the nature of the course) with students who require special accommodations because of disability. Please bring these concerns to me and the campus CASE worker as soon as possible.

**Academic Misconduct:**

Academic integrity is central to the mission of this institution. UWS 14 defines academic misconduct as any "action which a student: 1) seeks to claim credit for the work or efforts of another without authorization or citation; 2) uses unauthorized materials or fabricated data in any academic exercise; 3) forges or falsifies academic documents or records; 4) intentionally impedes or damages the academic work of others; 5) engages in conduct aimed at making false representation of a student's academic performance; 6) assists other students in any of these acts." UWS 14 allows for disciplinary sanctions that range from an oral reprimand to suspension or expulsion from the University. You can obtain a copy of the full academic misconduct policy through the Student Services office. If I observe academic misconduct, or if suspicions of cheating are reported to me, I will request that the identified parties come to my office to discuss the situation, and the procedures set out in UWS 14 will be followed. I recognize that the rules regarding academic misconduct can sometimes be confusing for students with respect to specific assignments or course work. If you have questions, I encourage you to come and see me before the assignment is submitted. Ignorance or misunderstanding of the UW System policy will not serve as a valid excuse for academic misconduct.

**Problems? Questions?**

I hope that you will see me early on if you have any problems or questions. It is much more useful to deal with problems early in the semester, rather than wait until a few days short of the final and expect me to work miracles (my pet peeve). Please feel free to contact me as much or as often as you would like. Although I have office hours (where you are my first priority), I am usually available at any non-class time to meet with students – please take advantage of this. My main purpose for being here is to help you learn about biology!!

### TENTATIVE ZOOLOGY SCHEDULE OF EVENTS

<b>WEEK</b>	<b>TOPICS</b>	<b>TEXT READINGS*</b>	<b>LAB READINGS</b>
1 (1/28)	Intro to Zoology/Scientific Method; Microscopy	Ch. 1, 4	HO, 3
2 (2/4)	Chemistry of Life; Cell Structure/Transport	Ch. 2, 3, 4, 5	Ch. 5, 6, 8
3 (2/11)	Metabolism; Cell Division	Ch. 6, 7, 10, 11	HO, Ch.11
4** (2/18)	<b>EXAM 1</b> Genetics	Ch. 12	HO
5 (2/25)	Evolution; Classification	Ch. 18, 19, 20	HO Ch.17
6 (3/4)	Tissues & Organs & Systems I	Ch. 33, 38, 43	Ch. 27, HO, 37
7 (3/11)	<b>EXAM 2</b> Organs & Systems II	Ch. 39, 40, 34,	Ch. 35
8 (3/18)	Organs & Systems II Survey of Inverts	Ch. 41, 35; 28	Ch. 34; 28
	<b>SPRING BREAK!!!!</b>		
9 (4/1)	Survey of Inverts	Ch. 28	Ch. 29, 30
10 (4/8)	<b>EXAM 3</b> Survey of Inverts	Ch. 28	Ch 30, 31
11 (4/15)	Chordates	Ch.29	31
12 (4/22)	Chordates	Ch. 29	31
13 (4/29)	<b>EXAM 4</b> Behavior, Ecology	Ch. 45, 46	HO
14 (5/6)	Ecology, Group Presentations	Ch. 45, 46	HO
15 (5/13)	Ecology	Ch. 45, 46	Outdoor lab (HO)

**Final exam:** The final exam will be “cumulative”, with a focus on the last 3 weeks of class.

\* A more detailed list of reading assignments will be provided with the learning objectives for each topic on D2L.

\*\* Some independent work outside of class.