

GENERAL BIOLOGY
BIOL 101, SPRING 2022
Section 01 (L1, L2, L3, and L4)

Instructor: Dr. Karin Bodensteiner
Office: Room 308 Chemistry Biology Building
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Class Periods: Monday/Wednesday/Friday 12:00-12:50 p.m.; Synchronous online via Zoom

Meeting ID: 956 9336 9963

Passcode: 772218

Link: <https://wisconsin-edu.zoom.us/j/95693369963?pwd=b0dXWlBxY0VUL3AyTFN2dnUyUHNwUT09&from=addon>

Textbook: Taylor MR, SJ Simon, JL Dickey, K Hogan, and JB Reece. 2018. Campbell Biology: Concepts and Connections, 9th ed. Benjamin Cummings/Pearson, Boston. Available for rent in bookstore.

Course Content and Additional Course Information: Material associated with the course will be posted on Canvas as we go through the semester. Please visit the Canvas training site for help with using Canvas, if needed: <https://uwstp.instructure.com/enroll/36GKLY> . We will also be using Zoom for virtual office hours and, potentially, class meetings, so please familiarize yourselves with Zoom as well. **Zoom Support:** <https://www.uwsp.edu/infotech/Pages/Tutorials/Zoom/Zoom.aspx>

Laboratory Exercises: Will be posted on Canvas and discussed during synchronous, online meeting sessions once a week.

Tuesday 9:00-11:50 a.m.:

Meeting ID: 935 8567 5425

Passcode: 942360

Link: <https://wisconsin-edu.zoom.us/j/93585675425?pwd=Qlc1UEdqSVl4VkZ1NmIrbHBvZE9iZz09&from=addon>

Tuesday 2:00-4:50 p.m.:

Meeting ID: 948 9613 2676

Passcode: 115070

Link: <https://wisconsin-edu.zoom.us/j/94896132676?pwd=TGUxS2g1Z2xGOTNpRmlaV1c4WGdVdz09&from=addon>

Wednesday 2:00-4:50 p.m.:

Meeting ID: 956 5807 9411

Passcode: 487389

Link: <https://wisconsin-edu.zoom.us/j/95658079411?pwd=OFRia1FmNmNtZ3I3SkJaemZ0RmINUT09&from=addon>

Thursday 12:00-2:50 p.m.: Instructor: Dr. Diane Caporale

Meeting ID: 995 0760 0358

Passcode: 019122

Link: <https://wisconsin-edu.zoom.us/j/99507600358?pwd=RTUxWmxVR2Y2V0lOKzFSaHcwbGhXUT09&from=addon>

Office Hours: 11:00 a.m. to 11:50 a.m. Monday, Wednesday, and Friday via Zoom, or by appointment

Meeting ID: 964 8605 7651

Passcode: 664980

Link: <https://wisconsinedu.zoom.us/j/96486057651?pwd=K2pDbVB2aml2SG5rbW83TjBObGkxUT09&from=addon>

Course Description: This course introduces non-major students to the basic principles of Biology and acquaints them with the diversity of life. We will explore basic cellular-level processes, genetics, reproduction, evolution, biological diversity, animal physiology, and how organisms relate to one another within their environments, with special emphasis on the applicability and relevance of biological concepts, knowledge, and technology to average citizens. This course meets natural science general education requirements by fulfilling the learning outcomes for this category of the general education program.

General Education Program Natural Science Learning Outcomes: (upon completing this requirement, students should be able to...)

1. Explain major concepts, methods, or theories in the natural sciences to investigate the physical world.
2. Interpret information, solve problems, and make decisions by applying natural science concepts, methods, and quantitative techniques.
3. Describe the relevance of aspects of the natural sciences to their lives and society.

Course Student Learning Outcomes: (upon completing this course, students should be able to...)

1. Apply the scientific method to biological questions.
2. Discuss biological principles including:
 - cellular level functions that are necessary for life
 - inheritance and evolutionary change
 - the diversity of animals and plants within an evolutionary context
 - the function of animal organ systems
 - the basic functioning of populations, communities, and ecosystems
3. Discuss the relevance of biological principles to their lives and society.

Point Breakdown:

Lecture Exams	4 @ 100 pts each
Laboratories	120 pts
Thought Questions	40 pts
Professionalism	50 pts
Total	610 pts

Grade Scale (out of 100% of Total):

A ≥ 93-100	C = 73-76
A- = 90-92	C- = 70-72
B+ = 87-89	D+ = 67-69
B = 83-86	D = 60-66
B- = 80-82	F < 60.0
C+ = 77-79	

Lecture:

Our class will be held synchronously at the scheduled lecture time (M/W/F 12:00 to 12:50 p.m.) in a regularly scheduled Zoom meeting. I am hopeful that these meetings will be similar to an in-person class, where you are free to ask questions, discuss material, and engage with your classmates, instructor, and course material. Synchronous meeting attendance is expected and will factor in to your professionalism grade at the end of the semester.

Laboratory:

Labs will consist of on line exercises that will help you hone your skills in scientific reasoning and data analysis. Most labs also provide an opportunity to apply concepts covered in lecture. You will complete

approximately one lab per week on line. The following week, you will meet virtually via Zoom with your laboratory section and your instructor to go over the lab. This meeting is intended to help clarify information from the lab, and will give you an opportunity to ask questions and interact with others. Note that because of the way labs are scheduled, you will be dealing with two labs each week for most of the semester— discussing and submitting labs the week after beginning them online. Please see the course schedule at the end of this document for additional details.

Exams and Assignments:

There will be four lecture exams over the course of the semester. Each exam is worth 100 points and will likely consist of multiple choice, definitions, fill-ins, and short answer questions. In addition, application of information provided in lecture to an unknown problem may be required. Course material will build over the semester and it will be important for you to remember and apply basic information learned early on to material covered later in the course. All exams will count towards your final grade. Points will also be awarded in the laboratory. These points will come from lab-based quizzes and/or assignments every week we are in lab. Your lowest lab score will be dropped at the end of the semester. Therefore, although there are 130 points available in the lab, your final laboratory grade will be calculated from 120 total points.

Thought Questions:

Approximately twice per unit (8 @ 5 pts each), you will be given thought questions with a typed response/answer due the following week. These questions are intended to spur your thinking on content we are considering, and there may not be a single, or even a correct, answer. For these assignments, you are encouraged to consult multiple sources and discuss your thoughts/ideas with your classmates. You will be graded (individually) on the quality of your typed response.

Professionalism:

Attendance: You are expected to attend and/or complete all lectures and labs. If you will miss a class due to a college-sanctioned event, you must notify your instructor in advance and complete any coursework before the next scheduled lab or class period. Exams must be taken at the assigned time and alterations to this schedule will only be made for emergencies. In such cases, evidence of some kind must be provided and you are expected to make arrangements within 48 hours of the exam to schedule a make-up. It is your responsibility to communicate concerns and get notes for any missed classes. As part of your professionalism grade, you will also be evaluated on course participation, including class and discussion participation. If you have an unexcused absence, you will not be allowed to make up a missed assignment.

Behavior: Complete mutual respect and courtesy is expected and all students should come to class ready to be engaged and actively participate in the learning experience. Open, honest discussion is encouraged and will factor in to your professionalism grade.

Lecture materials and recordings for this course are protected intellectual property. Students in the course may use course materials and recordings for personal use as related to participation in this class. Students may also take notes on course material. Students may not copy or share lecture materials outside of class, including posting on internet sites or selling to commercial entities. Students are prohibited from selling personal notes or being paid for taking notes without the instructor's express written permission. Unauthorized use of copyrighted materials (lecture notes, slides, and recordings) constitutes copyright infringement under university policy, and University of Wisconsin System Chapters 14 and 17, governing student academic and non-academic misconduct.

Other Guidance:

- Please monitor your own health each day. If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646). As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- Please maintain these same healthy practices outside the classroom.

Course Assistance:

One-on-one tutors and walk-in tutoring are available to help students with lecture and lab material. Interested students should contact the Tutoring-Learning Center (tlctutor@uwsp.edu). Information on group tutoring to follow.

Grade Discrepancies:

Grades will be posted on Canvas throughout the semester. If there are discrepancies on any assignments, quizzes, or exams, they can be addressed with the instructor, in person, up to one week after the grade is posted. After this time, the grade will stand with whatever was originally granted.

Academic Policies:

Academic misconduct (as outlined and defined by Chapter 14 in the Academic Handbook: <https://www.uwsp.edu/acadaff/Pages/handbook.aspx>) will not be tolerated. Cheating or plagiarism will result in a score of zero for a give assessment and/or additional disciplinary action.

Disability Services:

Any student who feels that they may need an accommodation based on the impact of a disability should contact the Disability and Assistive Technology Center (room 609 Albertson Hall, datctr@uwsp.edu). If you have already registered with this office and would like to discuss your class accommodations for the semester, please meet with me.

Emergency Response Guidance:

- In the event of a medical emergency call 9-1-1 and guide emergency responders to victim.
- In the event of a tornado warning, proceed to lowest level interior room without windows.
- In the event of a fire alarm, evacuate building in a calm manner, meet on sidewalk to east of building, near UWSP sign. Notify instructor or emergency command personnel of any missing individuals.
- Active Shooter/Code React – Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Call 9-1-1 when it is safe to do so. Follow instructions of emergency responders.
- See UW-Stevens Point Emergency Procedures at www.uwsp.edu/rmgt/Pages/em/procedures for details on all emergency response protocols at UW-Stevens Point.

Course Schedule:

Wk:	Dates:	Lecture Topic:	Chapter:	Lab Exercises:*
1	M 1/24 W 1/26 F 1/28	Introduction to General Biology The Chemicals of Life The Chemicals of Life; Thought Question 1 Assigned	1 2 2	No Lab
2	M 1/31 W 2/2 F 2/4	Biological Molecules Biological Molecules Cellular Structure; Thought Question 1 Due; Thought Question 2 Assigned	3 3 4	Scientific Method
3	M 2/7 W 2/9 F 2/11	Cellular Structure Cellular Function Cellular Function; Thought Question 2 Due	4 5 5	Osmosis and Diffusion
4	M 2/14 W 2/16 F 2/18	Cellular Respiration Cellular Respiration Exam 1; Thought Question 3 Assigned	6 6	Enzymes
5	M 2/21 W 2/23 F 2/25	Photosynthesis Photosynthesis Cellular Reproduction; Thought Question 3 Due	7 7 8	Photosynthesis
6	M 2/28 W 3/2 F 3/4	Cellular Reproduction Patterns of Inheritance Patterns of Inheritance; Thought Question 4 Assigned	8 9 9	Mitosis and Meiosis
7	M 3/7 W 3/9 F 3/11	From DNA to RNA to Protein From DNA to RNA to Protein How Populations Evolve; Thought Question 4 Due	10 10 13	Mendelian Inheritance
8	M 3/14 W 3/16 F 3/18	Speciation Evolutionary History Exam 2; Thought Question 5 Assigned	14 15	Central Dogma
9	M 3/21 W 3/23 F 3/25	Spring Break		(No Lab)
10	M 3/28 W 3/30 F 4/1	Microbial Diversity Plant and Fungal Diversity Plant Diversity; Thought Question 5 Due	16 16 & 17 17	Bacteria and Protists
11	M 4/4 W 4/6 F 4/8	Animal Diversity Animal Diversity Animal Diversity; Thought Question 6 Assigned	18 & 19 18 & 19 18 & 19	Land Plants
12	M 4/11 W 4/13 F 4/15	Animal Form and Function Animal Form and Function Exam 3; Thought Question 6 Due	20 20	Animal Diversity
13	M 4/18 W 4/20 F 4/22	Nutrition and Digestion Nutrition and Digestion Circulation and Gas Exchange; Thought Question 7 Assigned	21 21 22 & 23	Nutrition and Diabetes
14	M 4/25 W 4/27 F 4/29	Circulation and Gas Exchange Hormones and the Endocrine System Reproduction and Embryonic Development; Thought Question 7 Due	22 & 23 26 27	Endocrinology
15	M 5/2 W 5/4 F 5/6	Reproduction and Embryonic Development Nervous Systems Nervous Systems; Thought Question 8 Assigned	27 28 28	Origami Embryo
16	M 5/9 W 5/11 F 5/13	The Biosphere Population Ecology Ecosystems and Conservation Biology; Thought Question 8 Due	34 36 37 & 38	Laboratory/Course Wrap-Up
17	T 5/17	Exam 4; 12:30-2:30 p.m.		

*You will be allowed to drop your lowest laboratory score. In other words, although there are a total of 130 points available in the lab, your final grade will be calculated from 120 total points.