

BIO 101: General Biology

Fall 2022, 5 Credit

Lecture: Tue, Thur 12:30 – 1:45pm (SCI D102)

Lab: M, T, W, or R (CBB 136)

Lecture Instructor: Ann Impullitti, Ph.D.

Lab Instructor(s): Ann Impullitti, Ph.D. *OR* Sarah Orlofske, Ph.D.

Dr. Impullitti's Contact Information

Office: CBB 342

Email: aimpulli@uwsp.edu

Office hours: Mon, Friday 11:00AM – 12:00 PM, or by appointment. I have an open door policy. If you have any questions stop by any time

Dr. Orlofske's Contact Information

Office: TNR 446

Email: sorlofsk@uwsp.edu

Office hours: Monday and Wednesday 9-10AM, or by appointment. If I am not in the office check my research lab (TNR 451) and stop in!

How I will contact you: I will use your UWSP email address so please check your email daily. If you use a different email address, make arrangements to have messages forwarded to the account you use.

Introduction and Learning Outcomes

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 and 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.

Students completing this course will attain varying levels of proficiency in their ability to:

1. Solve problems through application of the scientific method.
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.

Course Materials

For lecture

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

For Lab

Lab Manual: Biology 101 Lab Manual, Available in the Campus Book store.

(Provided to you in class. A special course fee for the lab manual was charged to your account).

Class format and student expectations

We will meet twice every week for lecture. There is no virtual/recorded option for this section of BIOL 101. The labs are in-person and will meet one time each week. The labs are designed for you to apply the scientific method and to further your understanding of topics covered throughout the semester.

At a minimum, you will be expected to complete the following types of tasks throughout the semester

- Access Canvas for lecture notes, assignments, etc
- Upload/submit assignments to Canvas
- Learn to use MS Excel
- Complete assignments/quizzes/tests in-person or in an on-line format
- Check your email daily
- Communicate via email and Zoom when needed
- Work with small groups of students for lecture and/or lab assignments

How to succeed

- Stay organized! Check and read your email and Canvas Announcements at least one time per day!
- This class is 5 credits. The federal expectation is that you spend 2-3 hrs outside of class for each credit. For BIOL 101 this would mean that the expectation is that you spend 10+hrs on this course every week. Many of your other courses are likely 3-4 credits so keep in mind that this course is 5 credits and as such, will likely require more time than some of your other courses.
- I will not formally take attendance in lecture, but you are expected to attend all lectures. Please note that there is also a strong correlation with attendance and being successful as an undergraduate.
- Attend every lecture and lab! Lecture and lab are complimentary parts of this course. Make every effort to integrate the information presented in lecture, in lab, and in the text.
- Use the lab period wisely. Really study the material and make sure you understand it. If you don't understand something, ask questions. Make sketches and drawings. If you finish the lab exercises before the end of the period use the remaining time to review for the next quiz or read the next lab.
- Take notes! You will be provided a lecture outline and study guide for each chapter! Review this handout before class, take notes during class, and try to write a summary of your notes after class.
- Study frequently and actively. Spend time every day studying for this course. Be sure to find a time and place that is free from distractions so that you can really concentrate and analyze the material.
- Meet regularly with a partner or small study group. Quiz each other. Answer each other's questions. One of the best ways to really learn the material (or to discover that you don't understand it after all...) is to explain it to someone else.
- Please take advantage of my office hours. Come in as soon as you have any questions or difficulties with the material.
- Keep cell phones and other electronic devices turned OFF. Research has repeatedly shown that our brains are not very good at multi-tasking. Pausing to check your text messages, social media, etc will distract yourself and others around you. Stay focused.

Assessment

Exams (400 pts)

Three lecture exams (100pts/exam) and a cumulative final exam (100 pts). Exams are based on lectures and assigned readings. Exams may be composed of any of the following T/F, multiple choice, fill in the blank, or short answer.

Drop/Replace policy

- We all have days when life throws a us a bunch of lemons so I will drop the lowest score of your *three lecture exams* and replace it with your score on the final. For example, you overslept OR the first exam just didn't go well. No problem, I get it. *This policy applies if you miss an exam for any reason* (car troubles, your ill, need to quarantine, alarm clock failure, etc.), you will receive a zero on the exam, but then the zero will be dropped and replaced with your score on the final exam. *The drop/replace policy only applies to the three lecture exams. You cannot drop the final exam.*
- Here is an example of the drop/replace policy: You missed lecture exam #1 (Score = 0) and earned a 75% (56/75pts) on the final exam. Exam #1 will now be replaced with 75pts.
- *Makeup exams are only given in extreme circumstances OR if you have a conflict due to a religious observance or a UWSP sponsored event.* In cases such as these, you need to make arrangement with me **at least 1 week before the exam.**

Quizzes (50 pts)

We will have pop quizzes throughout the semester. The purpose of these quizzes is to help you keep up with the material, check-in on your note taking, and gauge your class attendance. There will be about 60(+) points worth of these assignments during the semester, but the maximum possible score is 50 points. This allows you some flexibility since you can miss a few quizzes or score less than perfect on several and still have the ability to score all 60 points. There are no make-up quizzes

In-class discussions (60 pts)

The lecture period preceding an exam will include a 35-40 min in-class discussion, followed by a review session for the duration of class time. A reading assignment will be posed on Canvas from Scientific American, the NYT, or other source one week in advance. The reading will be accompanied by a series of questions that must be answered and submitted to Canvas prior to the discussion (10 points). In class, students will break into small groups and will complete a summary worksheet (10 points) based on their discussion. **No points will be assigned for the in-class discussion summary unless the preparatory worksheet has been completed.**

Lab (150 pts)

Pre-lab quizzes: Weekly pre-lab videos will be posted to Canvas. You must watch the video and complete the quiz prior to lab. Each quiz is worth 5 pts, and the lowest score will be dropped. (55 pts)

Post lab questions: Answers to the Post-Lab questions should be uploaded to Canvas every week. Post-lab questions are due before lab of the following week. For example, if you have Lab Monday at 4pm, your post-lab would be due the following Monday at 3:59pm. Post lab grading is as follows:

- Of the 13 post labs, 7 of them will be graded and are worth 10 pts. Your lowest score of the semester will be dropped. (60 pts total).
- Lab 12 (Circulation and Gas Exchange) is graded and will be worth 15 pts.
- 5 post-labs will be marked as complete/incomplete and worth 5 pts each (20 pts)

Grading

Grades will be posted in Canvas. All final grade calculations are completed in MS Excel. *Your grade in Canvas is only an estimate.*

Your final grade is determined based on the percent of points earned throughout the semester.

$$\frac{\text{Total pts you earn on all assignments}}{\text{Total pts possible for all assignments}} \times 100 = \text{Your \% earned}$$

A	A -	B+	B	B-	C+	C	C-	D+	D	F
>93%	90 - 92.9%	87 - 89.9%	83 - 86.9%	80 - 82.9%	77 - 79.9%	73 - 76.9%	70 - 72.9%	67 - 69.9%	60 - 66.9%	<59.9

BIOL 101 and UWSP Policies

ATTENDANCE: Attending class will likely be the single most important factor in determining your performance and grade in the course, so plan to attend every class. In most class meetings you will have at least one project, exercise, test, and/or discussion that will impact your grade, and your class discussions will count toward participation. The relationship between attendance and achievement in education has been extensively documented in peer-reviewed research. ***I am not able to re-teach the material to you in the event that you are absent, but you can ask a classmate to share notes.***

TECHNOLOGY GUIDELINES: Research supports that having visual access to a cell phone diminishes our ability to learn. Checking social media, texts, emails, and messages is unprofessional and disrespectful to our class community. Please turn off your phone during class; I will do so as well. If I notice that you are using your phone during class I may ask you to share what you are researching or ask you to put it away. Thank you for following these guidelines as they help create a positive learning community.

DUE DATES AND LATE WORK: Please refer to the 'Assessment Section' of the syllabus for specific due dates of lab and lecture assignments. I do have expectations, standards, and deadlines for assignments, but I also understand that you might be ill, have an emergency, etc. If you are unable to meet a deadline, please contact me as soon as possible so we can work together to make necessary arrangements. Approved/Excused late work will not receive late penalties. Late work submitted without arrangements or explanation will be subject to a 10% late penalty for each day that it is late. ***Late assignments are only accepted for one week following the due date.*** After that time, the assignment will no longer be available on Canvas and you will receive a zero. The last day to submit assignments to Canvas is December 21.

ACADEMIC INTEGRITY: Academic dishonesty in any form will not be tolerated! Assignments submitted to Canvas are automatically scanned by TurnItIn software that verifies the originality of your work. Cheating or plagiarism related to any of the course assessments will result in a score of zero for that assignment/exam. Please take the time to read and understand the 'UWSP Academic Honesty' policy below:

UWSP ACADEMIC HONESTY

Academic Integrity is an expectation of each UW-Stevens Point student. Campus community members are responsible for fostering and upholding an environment in which student learning is fair, just, and honest. Through your studies as a student, it is essential to exhibit the highest level of personal honesty and respect for the intellectual property of others. Academic misconduct is unacceptable. It compromises and disrespects the integrity of our university and those who study here. To maintain academic integrity, a student must only claim work which is the authentic work solely of their own, providing correct citations and credit to others as needed. Cheating,

fabrication, plagiarism, unauthorized collaboration, and/or helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. Failure to understand what constitutes academic misconduct does not exempt responsibility from engaging in it.

UWSP 14.03 Academic misconduct subject to disciplinary action.

- (1) Academic misconduct is an act in which a student:
 - (a) Seeks to claim credit for the work or efforts of another without authorization or citation;
 - (b) Uses unauthorized materials or fabricated data in any academic exercise;
 - (c) Forges or falsifies academic documents or records;
 - (d) Intentionally impedes or damages the academic work of others;
 - (e) Engages in conduct aimed at making false representation of a student's academic performance; or
 - (f) Assists other students in any of these acts.

- (2) Examples of academic misconduct include, but are not limited to:
 - Cheating on an examination
 - Collaborating with others in work to be presented, contrary to the stated rules of the course
 - Submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another
 - Submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas
 - Stealing examinations or course materials
 - Submitting, if contrary to the rules of a course, work previously presented in another course
 - Tampering with the laboratory experiment or computer program of another student
 - Knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

Students suspected of academic misconduct will be asked to meet with the instructor to discuss the concerns. If academic misconduct is evident, procedures for determining disciplinary sanctions will be followed as outlined in the [University System Administrative Code, Chapter 14](#).

UNDERSTAND WHEN YOU MAY DROP THIS COURSE: It is the student's responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP [Academic Calendar](#) for dates and deadlines. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

STUDENT RECORDING AND SHARING CLASS LECTURE: Lecture materials and recordings for General Biology (BIOL 101) are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or share lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

EQUAL ACCESS FOR STUDENTS WITH DISABILITIES: UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be

adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

If modifications are required due to a disability, please inform the instructor and contact the [Disability and Assistive Technology Center](#) to complete an Accommodations Request form. Phone: 346-3365 or Room 609 Albertson Hall.

HELP RESOURCES

Tutoring	Advising	Safety and General Support	Health
Tutoring and Learning Center helps with Study Skills, Writing, Technology, Math, & Science. 018 Albertson Hall, ext 3568	Academic and Career Advising Center, 320 Albertson Hall Ext. 3226	Dean of Students Office, 212 Old Main, ext. 2611	Counseling Center, Delzell Hall, ext. 3553. Health Care, Delzell Hall, ext. 4646

UWSP SERVICE DESK

The Office of Information Technology (IT) provides a Service Desk to assist students with connecting to the Campus Network, virus and spyware removal, file recovery, equipment loan, and computer repair. You can contact the Service Desk via email at techhelp@uwsp.edu or at (715) 346-4357 (HELP) or visit this [link for more information](#).

CARE TEAM

The University of Wisconsin-Stevens Point is committed to the safety and success of all students. The Office of the Dean of Students supports the campus community by reaching out and providing resources in areas where a student may be struggling or experiencing barriers to their success. Faculty and staff are asked to be proactive, supportive, and involved in facilitating the success of our students through early detection, reporting, and intervention. As your instructor, I may contact the Office of the Dean of Students if I sense you are in need of additional support which individually I may not be able to provide. You may also share a concern if you or another member of our campus community needs support, is distressed, or exhibits concerning behavior that is interfering with the academic or personal success or the safety of others, by reporting [here](#).

BIO101: Schedule

Date	Week 1	Textbook
Tue-Sep-6	Course Overview The Scientific Study of Life	Ch 1
Thu-Sep-8	The Process of Science and Five Unifying Themes	Ch 1
	<i>Lab: No Lab</i>	
Week 2		
Tue-Sep-13	The Chemicals of Life	Ch 2
Thu-Sep-15	Biological Molecules	Ch 3
	<i>Lab 1: Scientific Investigation</i>	
Week 3		
Tue-Sep-20	Cellular Structure	Ch 4
Thu-Sep-22	How Cells Work	Ch 5
	<i>Lab 2: Microscopes and Cells</i>	
Week 4		
Tue-Sep-27	Chemical Energy in the Cell	Ch 6
Thu-Sep-29	Photosynthesis	Ch 7
	<i>Lab 3: Diffusion and Osmosis</i>	
Week 5		
Tue-Oct-4	In-class Discussion I and review	
Thu-Oct-6	Exam #1	
	<i>Lab 4: Enzymatic Activity</i>	
Week 6		
Tue-Oct-11	Cellular Reproduction	Ch 8
Thu-Oct-13	Inheritance	Ch 9
	<i>Lab 5: Photosynthesis</i>	
Week 7		
Tue-Oct-18	Molecular Biology of the Gene	Ch 10
Thu-Oct-20	How Populations Evolve	Ch 13
	<i>Lab 6: Mitosis</i>	
Week 8		
Tue-Oct-25	Speciation and Evolutionary History	Ch 14/15
Thu-Oct-27	Microbes, Protists, Fungi	Ch 16/17
	<i>Lab 7: Meiosis</i>	
Week 9		
Tue-Nov-1	Plants	Ch 17
Thu-Nov-3	Invertebrate animals	Ch 18
	<i>Lab 8: Natural Selection</i>	
Week 10		
Tue-Nov-8	In Class-Discussion II; Review	
Thu-Nov-10	Exam #2	
	<i>Lab 9: Bacteria and Protists</i>	

Week 11		
Tue-Nov-15	Chordates	Ch 19
Thu-Nov-17	Gas exchange	Ch 22
	<i>Lab 10: Land Plants</i>	
Week 12		
Tue-Nov-22	Circulation	Ch 23
Thu-Nov-24	No lecture	
	<i>No Lab</i>	
Week 13		
Tue-Nov-29	The Immune System	Ch 24
Thu-Dec-1	The Biosphere and Population Ecology	Ch 34/36
	<i>Lab 11: Animal Diversity</i>	
Week 14		
Tue-Dec-6	Communities and Ecosystems	Ch 37
Thu-Dec-8	Ecosystems & Conservation Biology	Ch 38
	<i>Lab 12: Circulation and Gas Exchange</i>	
Week 15		
Tue-Dec-13	In Class-Discussion III; Review	
Thu-Dec-15	Exam #3	
	<i>Lab 13: Mark-Recapture OR Food Webs</i>	
Finals Week		
Tue-Dec-20	Comprehensive Final - 10:15 - 12:15 (SCI D102)	