

BIO 101: General Biology

Fall 2019, 5 Credit

Lecture: M, W 9:30 – 10:45AM

Lab: M, T, W or R

Lecture Instructor: Ann Impullitti, Ph.D.

Office: CBB 342

Work Phone: 715-346-2772

Email: ann.impullitti@uwsp.edu

Office hours: Mon, Wed 11:00AM – 12:00 PM, or by appointment

In general, I have an open door policy. If you have any questions stop by any time and I will answer them, time permitting.

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.
(REQUIRED, PURCHASE FROM BOOKSTORE).

Student expectations and attendance

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.

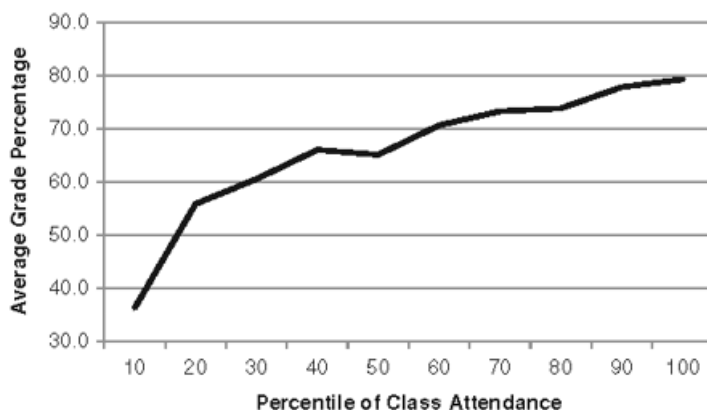


Figure. Illustration of the curvilinear relationship between attendance and grade outcomes. *Data from Gendron and Pieper (2005). Class Attendance in College A Meta-Analytic Review of the Relationship of Class Attendance With Grades and Student Characteristics.*

Learning is not a spectator sport. Most people learn best by getting involved with the subject material, talking about it, and questioning it. Therefore, we will be writing in class almost daily and doing other activities. You will receive points for these in-class activities.

HOW TO DO WELL IN THIS COURSE:

- Print out the lecture notebook and study guide! Review this handout before class and take notes on it during class. These handouts are often an underutilized.
- 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.
- 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.**

Assessment

Lecture Exams (400 pts)

Three in class exams (100 pts/exam) and a final (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. The final exam is cumulative.

A makeup exam will be given 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.** **The rescheduled test must be taken 24hrs before the scheduled time. NO EXCEPTIONS**

- Drop/Replace policy
 - I will drop the lowest score of your three in class lecture exams and replace it with your score on the final.
 - If you miss an exam for any reason (car troubles, illness, family emergency, alarm clock failure, etc.), you will receive a zero on the exam. This '0' will then be your lowest exam score and will be replaced with what you would earn on the final. See calculation above

Quizzes (60 pts)

We will have on-line pop quizzes throughout the semester. The purpose of these quizzes is to help you master the material, clarify your ideas/thinking, and improve your critical thinking skills. There will be about 70 points worth of these assignments during the semester, but the maximum possible score is 60 points. This allows you some flexibility since you can miss two assignments 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)

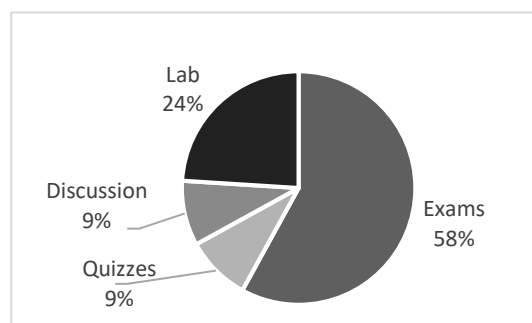
At three points during the term, there will be formal in-class discussions of non-text reading materials. Students are expected to read the articles provided in advance of the discussion and complete a 10-point worksheet, submitted on D2L, prior to the start of class on the day of discussion. In class, students will break into small groups and will complete a summary worksheet based on their discussion. This will also be worth 10 points. No points will be assigned for the in-class discussion summary unless the preparatory worksheet has been completed. Alternate assignments will be provided for **excused** absences from in-class discussions.

Lab (165 pts)

Your lab grade will be worth 165pts. 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 (13 quizzes x 5 = 65pts). Answers to the Post-Lab questions should be uploaded to Canvas every week (10 pts/week). You are required to turn in all of the post-lab questions, but I will grade only 10 weeks (100 pts ttl) of post-lab questions. The weeks that I will select to grade the post-lab questions are random. You will receive a 10pt deduction in your overall lab grade if you do not turn in the post-lab questions during a non-grading week.

A	>93%	> 637	C	73 - 76.9%	500 - 526
A -	90 - 92.9%	616 - 636	C-	70 - 72.9%	479 - 499
B+	87 - 89.9%	596 - 615	D+	67 - 69.9%	459 - 478
B	83 - 86.9%	569 - 595	D	63 - 66.9%	432 - 458
B-	80 - 82.9%	548 - 568	D-	60 - 62.9%	411 - 431
C+	77 - 79.9%	527 - 547	F	<59.9	> 410

Your grades will be posted on Canvas



UWSP Policies

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.

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.***

ACADEMIC INTEGRITY: Academic dishonesty in any form will not be tolerated! It is your responsibility to be aware of your rights and responsibilities as a UWSP student. Please take the time to read and understand the information found here (and let me know of any questions):

<http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>. Cheating or plagiarism related to any of the course assessments will result in a score of zero for that assessment.

ACCOMODATIONS: I will be happy to help you if you need special accommodations to succeed in this course. Please visit the UWSP Student Disability and Assistive Technology Center (located in LRC 609) to document your needs and contact me so that appropriate arrangements can be made. More information:

<http://www.uwsp.edu/disability/Pages/default.aspx>

BIO101 Schedule

Date	Topic	Textbook
Week 1		
Wed-Sep-4	Course Overview The Scientific Study of Life	Ch 1
	<i>Lab: No Lab</i>	
Week 2		
Mon-Sep-9	The Chemicals of Life	Ch 2
Wed-Sep-11	Biological Molecules	Ch 3
	<i>Lab 1: Scientific Investigation</i>	
Week 3		
Mon-Sep-16	Cellular Structure	Ch 4
Wed-Sep-18	How Cells Work	Ch 5
	<i>Lab 2: Microscopes and Cells</i>	
Week 4		
Mon-Sep-23	Chemical Energy in the Cell	Ch 6
Wed-Sep-25	Photosynthesis	Ch 7
	<i>Lab 3: Cell Membrane and Transport</i>	
Week 5		
Mon-Sep-30	In-class Discussion I	
Wed-Oct-2	Exam #1	
	<i>Lab 4: Enzymatic Activity</i>	
Week 6		
Mon-Oct-7	Cellular Reproduction	Ch 8
Wed-Oct-9	Inheritance	Ch 9
	<i>Lab 5: Photosynthesis</i>	
Week 7		
Mon-Oct-14	Molecular Biology of the Gene	Ch 10
Wed-Oct-16	The Road to Darwin	13
	<i>Lab 6: Mitosis</i>	
Week 8		
Mon-Oct-21	Speciation and Evolutionary History	Ch 14/15
Wed-Oct-23	Microbes, Protists, Fungi	Ch 16/17
	<i>Lab 7: Meiosis</i>	
Week 9		
Mon-Oct-28	Plants	17
Wed-Oct-30	Invertebrate animals	Ch 18
	<i>Lab 8: Natural Selection</i>	
Week 10		
Mon-Nov-4	Chordates	Ch 19
Wed-Nov-6	Chordates II and Catch-up day	
	<i>Lab 9: Bacteria and Protists</i>	
Week 11		

Mon-Nov-11	In Class-Discussion II; Review	
Wed-Nov-13	Exam #2	
	<i>Lab 10: Land Plants</i>	
Week 12		
Mon-Nov-18	Gas exchange	Ch 22
Wed-Nov-20	Circulation	Ch 23
	<i>Lab 11: Animal Diversity</i>	
Week 13		
Mon-Nov-25	The Immune System	Ch 24
Wed-Nov-27	The Biosphere and Population Ecology	Ch 34/36
	<i>No Lab</i>	
Week 14		
Mon-Dec-2	Communities and Ecosystems	Ch 37
Wed-Dec-4	Ecosystems & Conservation Biology	Ch 38
	<i>Lab 12: Circulation and Gas Exchange</i>	
Week 15		
Mon-Dec-9	In Class-Discussion III; Review	
Wed-Dec-11	Exam #3	
	<i>Lab 13: Mark-Recapture OR Food Webs</i>	
Finals Week		
Tue-Dec-17	Cumulative Final - 2:45 - 4:45 (SCI D102)	