

Introduction to Biology (BIOL 10)

Instructor: Amy Bohorquez **email:** abohorquez@peralta.edu **office hours:** MW 12:30–1:30 B202
Website address: https://laney.edu/amy_bohorquez/biology-1011/
Instructor: Nat Hallinan **email:** nhallinan@peralta.edu **office hours:**
Website address

Required text:

- Essentials of Biology w/Physiology, Campbell (option for digital textbook)
- Computer or device where you can upload documents/photos, watch videos and take quizzes
- Reliable internet service to access Canvas and be able to take timed exams
- BIOL 10 lab manual 2023 & Lecture Notes BIOL 10

Description:

This class is an introduction to the science of biology for non-majors. We cover the fundamentals of biology for the non-major: Scientific inquiry, biological chemistry, cell structure and function, DNA and genetics, evolution and ecology, and an overview of living organisms. This class also includes laboratory exercises designed to complement lectures. As a first semester course, we will also be addressing study skills for Biology and biological thinking.

Although most of the material presented in your textbook is based on European science, which was mainly conducted by white men, we value and honor the information gathered by people outside of what might be reflected in your textbook. We will be highlighting Biologists and other researchers with a variety of backgrounds and perspectives. We also encourage you to bring your own thoughts to the discussions and class chats. Science is not without bias, in fact much of science has been used to justified biases of dominant culture. We will be discussing scientific bias from the first day of class. If you come across information that you think would be valuable to the class, we encourage you to share it. To limit our own biases, we ask that you submit your assignments without your names as we grade things anonymously.

LEARNING OUTCOMES - My Practical Goals for you

- Differentiate between a hypothesis and a theory
- Discuss the principles of biology as the study of living things including biological hierarchies, classification of living things, chemical processes of the cell and organisms.
- Improve confidence in scientific knowledge and ability to apply knowledge to related situations.
- Read and discuss articles related to current issues in biology. Form opinions on these issues and express and defend those opinions biologically in discussions and written essays.

LAB GOALS -

- Cooperate with others working as a group, delegate work to others, collaborate with group.
 - Use microscopes and other equipment correctly and care for them properly.
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ASSESSMENT OF THESE GOALS

CALENDAR & GRADES PAGE ASSIGNMENTS – To assist you in organizing your time....

We've included a calendar to help you get organized. Write in the due dates for assignments of other classes or dates other exams, work schedules, study times, etc. You can download a digital version via Canvas if you'd like to edit for your BIOL 10 section. Once this is filled out, you will submit it to us. Turning in the Calendar is your acknowledgement that you are aware of dates assignments are due and exam dates. We also ask that you fill out the grades page two times during the semester with totals and then meet with us to review your scores. Do not use Canvas for your overall grades, use the form provided in Canvas. Be sure to read the directions for both.

DISCUSSIONS - To be a part of a scientific community...

As part of our online learning community participation, you have Discussions to take part on in Canvas. These discussions use the study guide questions as prompts for the posts and replies so that n work together to support your colleagues on the challenging questions. The discussions also help you prepare for the exams. You can also set up Conferences with each other to create study groups. You'll see directions for each discussion with a grading rubric.

WRITING ASSIGNMENT - To apply what you've learned to current research...

You are assigned two writing assignments to complete this semester. For each testing section, you need to find a current topic in the news that relates to what we are discussing in class. Then, you will write a 2 page of analysis on your article, 5-paragraph form. In the essay, be sure you address the topic, the name of the researcher or research group and where the research was conducted. You should explain what the research is, what benefit it has to the world, how it relates to the course material (a sentence that starts with "this relates to class" is good) and why the research is important. You will be submitting this assignment digitally via Canvas, **Due the week before your lecture exam, yet, you can turn it in early! Check the dates the assignment is open for submission along with the grading rubric for specifics.**

HOMEWORK (HW) ASSIGNMENTS - To connect the lecture with the application....

We have some assignments to help you explore different topics. Those Homework (HW) assignments will be listed in the module for a total of 15 pts per each test section. Be sure you follow the module in order so you have all the information you need. The grades will be hidden until I have a chance to review. If you can submit the assignment twice, you may see your scores before I do, so be aware that your score may change. The "due" date posted is the day we recommend you complete the work. However, the assignments may be open for an additional day so you can ask for assistance if you need help completing the work. Some of these assignments have "fill-in" questions. We do look them over before finalizing your score which might take us a few days to double check.

STUDY GUIDE ASSIGNMENT – To help you assess what makes sense to you...

To encourage you to utilize the study guide to its fullest, you can earn points by answering all the questions on the study guide for exam 1 or 2. To earn full credit, you must write out the question then write out a complete answer. This may be a word, a sentence, or a long complex answer so be thorough. Try using a separate piece of paper for each section. We recommend that you complete the first one for credit, then you can increase your score if you need to with the second one. We're hoping that once you see how much it improves your scores you do this for all the tests. As well as increasing your test scores, you can earn up to 30 pts this way, so make sure you put in the time. **Due the day of the lecture exam (except final exam).**

QUIZZES – To verify we all understand the information....

There are a few quizzes throughout the semester to help ensure we are all following along. The first one covers the material in the Syllabus. By taking this *Syllabus Quiz* (10pts), you are not only acknowledging you read/understand the structure of course, expectations, grading, due dates, material needed, etc., but that you agree to these and intent to follow the syllabus. The *Microscope Quiz* (10 pts) is a way to encourage you to read over the labs before class and to help ensure you know how to use this equipment respectfully. There are also "check-in" quizzes (3 pts each) associated with each lecture. You can find them on the topic pages in Canvas. We recommend you answer the study guide questions first. These are designed for you to check in and see how well you are understanding the material. These also let us see how well folks understand the material. We also recommend you can take these more than once to help prepare you for the unit/section exams.

LECTURE MATERIAL ASSESSMENTS - To give you the chance to share what you've learned....

There will be online assessments (titled "Tell Me What You Know") where you have the chance to share your understanding of the lecture material. These may include multiple choice, true/false, matching questions, short answer and essay questions to include explanations and reasons for your answers. Remember we have study guide questions and "check-in" quizzes to help you along the way. Be sure to utilize the study guide and check-in quizzes as we go so if you have questions, we can discuss them! **Exams are open for 48 hours and you have 1 hour to complete the test once it starts so plan accordingly.**

It is a good idea to review your exam once it's graded. If you believe your answer is correct and you can explain it biologically speaking, you can turn that in, in writing, to try to gain points. **Due 3 days after the date you took the exam.**

LAB WORK - To conduct experiments and answer questions on the material....

Our labs are conducted in class at your scheduled day/time. Labs meet once a week so be sure you are on time and have read through the material. To receive full points, you must submit check out with us at the end of lab with your completed lab (summary questions and all). This will count your lab points (5 pts per lab x 13 labs). Be sure you read the lab before you start the lab. **The answer keys will be posted online after on Fridays and you are responsible for checking your answers to ensure you have the most accurate information.**

LAB PRACTICALS - To assess your understanding of the material you learned in the lab....

There will be 3 lab practicals give during the semester. These exams are designed to test your knowledge of both the experimental procedures and the hypotheses tested for each experiment. The exams consist of stations with questions you need to answer within a limited time as well as a few short answer questions. **These are given in person during class time. See your Calendar for the dates.**

PARTICIPATION - To be sure you are keeping up with the requirements of the class overall...

Each person is expected to attend class regularly, and to participate in the office hours, discussions and respectfully interact with colleagues. Setting up a schedule when you regularly work on the class is important to your success in the class. In lecture, this means being on time and prepared for class. Leaving your phones off or in your bags, not participating in distracting behavior during lecture, asking/answering questions. In lab, please be on time and prepared, work respectfully with your group, follow all safety/masking protocols and cleaning the lab area (including pushing in your chair) before you leave. You will be given points dependent upon how well you achieve these goals. Everyone starts with 70% of participation points and those points will go up or down depending on you.

EXTRA CREDIT

Extra Credit is available through participating in Lake Clean-up throughout the semester. If you work on Saturdays, see your Canvas shell for other options. Some options include visiting local zoos, science museums, parks and science lectures. **There is a limit of 1 extra credit assignment per testing section** with a total of 30 points maximum. Once the test has been taken, the opportunity is lost so try to plan ahead. You will turn it in through Canvas.

ASKING QUESTIONS/ASKING FOR EXTRA HELP

Questions are not only welcome, but also encouraged you have a few places to ask your questions. The lab room will be open between lecture and lab on Monday and Wednesday. You can bring your lunch, questions, topics, reading, etc. We will also have tutors in the room to ask questions. In Canvas, discussion boards can be used to work out questions with your group, online meeting times with our tutors or instructors. If you have any concerns about the class, please feel free to discuss them with us.

ACCESSIBILITY

It is our goal to make our courses as accessible as possible to students all of our students. We encourage you to chat with us by the second week of the course regarding any accommodations that will improve your experience in this course. You can also contact Student Accessibility Services at 464-3428 or SAS.Laney@peralta.edu for assistance. Also check out the Student Support Link links in your Canvas shell.

ACADEMIC INTEGRITY

In the long run, dishonesty will not help you in school, or your professional career. Cheating includes using cell phones for any reason during exams, attempting to copy (or copying) or using Artificial Intelligence or any other information that is not your work on quizzes, lab practicals, exams or lab notebook information or anything else deemed cheating by instructor. Ask me for help in you need it. The penalty can be a 0 on the assignment, a subtraction of points from your total, an "F" in the course and/or referral to the Dean of the College. See Department Policy if you have questions

The grades you earn in this class are based on your performance on these assignments. You can keep track with the Grades Page and check your total with us at any time.

Syllabus & Microscope Quizzes (10 pts each)	20 pts
Calendar (10 pts) & Grades Page (2 x 5pts)	20 pts
Writing Assignment (2 @ 25 points each)	50 pts
Check-in Quizzes (3 pts each)	60 pts
Discussions (5 pts each)	30 pts
HW Assignments (15 pts per section)	45 pts
Lab work (5pts a day)	65 pts
Study Guide (for test 1 or 2)	30 pts
Lecture Exams (3 @ 100 pts. each)	300 pts
Lab Practicals (3 @ 50 pts)	150 pts
Participation/Effort (15 lecture/15 lab)	30 pts
TOTAL	800 pts

Letter grades are determined by percent:

A	90 – 100% (720-800 pts)
B	80 – 89% (640-719 pts)
C	70 – 79% (560-639 pts)
D	60 – 69% (480-559 pts)
F	below 59.9% (<480 pts)

***Any late work will be **penalized 2 points for each day it is late**, so 1 week late = 14 point loss. Once the unit closes, no work from that section is accepted. No work is accepted after the third lecture assessment.

It is your responsibility to drop out from the class by College due date. Do Not Depend on Me to Do That for You! Protect yourself from receiving an "F" for a class that you stopped attending at some point in the semester!

Biology department Mask Policy: Careers in allied health, biotechnology, research and clinical labs and other biology fields often require wearing a mask as part of the health and safety regulations of that workplace. Thus, wearing masks is for workplace training as well as health and safety in the ongoing pandemic. Faculty, Staff and Students are encouraged to wear masks in class settings, however, there is no mask mandate on campus. Your instructor may require you to wear a mask in class. This also means that all members of the community need to respect the individual decisions made by each person.

Laney College does not discriminate on the basis of age, race, religion, color, gender identity, gender expression, sexual orientation, ancestry, citizenship, national origin, military or veteran status, disability, marital status, pregnancy, medical condition, and immigration status.