

BIOLOGY 10

Laney College/Fall 2018

Instructor: Riva Bruenn e-mail: rbruenn@peralta.edu Office Hours: Wednesday 5-6pm

BIOL 10 Lecture

Tuesdays (L1-LEC, Class #: 41388)

6:00 – 8:50 pm

Room: B210

BIOL 10 Lab

Wednesdays (Section L1LA, Class #: 41389) OR

Thursdays (Section L1LB, Class #: 41390)

6:00 – 8:50 pm

Room: B202

All class resources and assignments will be posted on Canvas at: <http://web.peralta.edu/portal/>

Course Description

This class is an introduction to the science of biology of non-majors. We cover the fundamentals of biology for the non-majors: 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 beginning course, we will also be addressing skills for biology and biological thinking.

Student learning outcomes (SLOs) for the course

- 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.
- 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.

Required texts/resources

Campell's Essential Biology with Physiology

Edition: 6th /7th Author: Simon, Dickey, and Reece

ISBN: 9780134812946

Publisher: Pearson

(Free online in MasteringBiology)

Biology 10 Laboratory Manual

Laney College

(Available online or in bound form from bookstore)

Additional Supplies

I recommend that you purchase (from the bookstore) or print the lecture workbook. You will also need to purchase 3 Scantron (882E or equivalent) forms. Bring 1 form and a #2 pencil to each lecture exam.

Communication

Check Canvas and your email regularly for class announcements. Make sure your peralta email and canvas notifications are on and correct. The best way to contact me is through email.

Accommodations for students with disabilities

- visit the DSPS website for information about available resources and the accommodations process <http://laney.edu/dsps/> and let me know of the accommodations you need as soon as possible.
- If you are or may be eligible to receive accommodations, please consider doing so. I want you to have your best chance of success in this course, and you can contribute the most if you have your needs met.

Course schedule

This is a tentative schedule. If there are any changes I will notify you as soon as possible.

Week of:	Lecture Topic	Chapter	Assessments Due (at the start of lecture)	Wednesday Lab Topic	Thursday Lab Topic
8/20	Intro to Biology	1		1. Scientific Inquiry	1. Scientific Inquiry
8/27	Chemistry	2		2. Chemistry in Practice	2. Chemistry in Practice
9/3	Chemistry and Molecules	2,3	Mastering 1	3. Using a Microscope	3. Using a Microscope
9/10	Cells	4,5	Calendar	4. You Are What You Eat	4. You Are What You Eat
9/17	Cell Functions	5,6	Essay	5. What Are Cells?	5. What Are Cells?
9/24	Lecture Exam 1	6	Study Guide	Lab Practical 1	6. Why we Breathe Oxygen
10/1	Cellular Reproduction	7,8		6. Why we Breathe Oxygen	7. How Cells Make More
10/8	DNA	8,10		7. How Cells Make More	8. What Is DNA?
10/15	Changing DNA	9,10	Mastering 2	8. What Is DNA?	9. How Do Things Change?
10/22	DNA Technology	11,12, 14	Grades 1	9. How Do Things Change?	NO LAB – PD day
10/29	Lecture Exam 2		Study Guide	Lab Practical 2	Lab Practical 2
11/5	Evolution	13,15		10. Microbes and Fungus	10. Microbes and Fungus
11/12	Plants and Animals	16,17	Mastering 3	11. Plant Evolution	11. Plant Evolution
11/19	Ecology	18,19	Essay 2	<i>Open lab</i>	NO LAB – Thanksgiving
11/26	Large Scale Ecology	20,21	Mastering 4	12. Animal Survey	12. Animal Survey
12/3	Review		Grades 2	Lab Practical 3	Lab Practical 3
12/10	Lecture Exam 3			NO LAB	NO LAB

**** You are responsible for your enrollment in this course. You will receive a grade for this course if you do not drop or withdraw on or before the deadline.****

Grades

Your course grade will be calculated based on the following:

Assessment	# of points	% of grade		
3 exams (50 each)	150	37.5		
3 lab practicals (25 each)	75	18.75		
12 lab reports (5 each)	60	15	A	90-100% 360-400 pts*
2 Essays (20 each)	40	10	B	80% + 320-359 pts
Study guide	20	5	C	70% + 280-319 pts
4 mastering assignments (5 each)	20	5	D	60% + 240-279 pts
Calendar assignment	10	2.5	F	< 60% < 240 pts
2 grades assignments (5 each)	10	2.5		
Participation	15	3.75		

*I will round if you are between points (359.5/400 → A)

Assessments of the SLOs

- 1) Lecture Exams There will be 3 non-cumulative lecture exams (see the dates on the course schedule). These exams are designed to test your understanding of lecture topics and the reading. After the exam is graded, if you believe an answer should have been marked correct you can turn in a written biological explanation of why your answer is correct by the start of lecture 1 week after the exam (this cannot be done for the final).
- 2) Lab Practicals There will be 3 lab practicals (see the dates on the course schedule). 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. Plan on the exam taking 1-2 hours. You may not leave until released, and you will not receive extra time if you arrive late. A study tip: make vocabulary and hypothesis/activity lists for each lab. *Be sure you are aware of tests that occur on a day that is not your usual lab day. Make arrangements beforehand, or talk with your lab instructor if you have a conflict.*
- 3) Lab Reports There are 13 labs over the course of the semester, but only your 12 best scores will count towards your final grade. To receive full points, show me your completed lab (including summary questions) before you leave each day. I expect you to read the labs ahead of time and come prepared to contribute to your lab group. I suggest that you check your lab report answers with me at the end of the lab period or during office hours – correct lab reports are a great study tool! *If you cannot attend a specific lab, you may be able to attend another section – to do this, contact me ahead of time.*
- 4) Current Events Essays You will write two essays about current scientific research. Each essay should be a 2-page analysis of a current article, video news story, or podcast in 5-paragraph form. In the essay, include the name of the researcher or research group, where the research was conducted, and explain what the research is, what benefit it has to the world, how it relates to the course material, and why the research is important. Guidelines, grading rubric, and submission link will be provided on Canvas.
- 5) Study Guides I will post a study guide for each exam. For exams 1 and 2, you may turn in a completed study guide for credit. If you chose to turn in both study guides, I will count the guide with the higher score. For full credit, write out the question then a complete answer. I will not collect the study guide for the final exam. I strongly encourage you to work on your study guides in groups, but (see policies above) each student must write their own answers in their own words and record the students they worked with on the guide. I hope completing the guides helps you organize your knowledge and study efficiently.
- 6) Mastering Assignments You will be assigned 4 short online assignments through Mastering Biology to help monitor your progress in the course. You will have multiple attempts to answer the questions, with the higher score counting towards your grade. Be sure to come to class to get the information you need to do these assignments, and set up your login information as soon as possible.
- 7) Calendar and Grades Assignments Complete the calendar posted on Canvas with the due dates of assignments and exams for other classes, and any events or responsibilities (family, work, etc.) that might impact your work for this course. I hope completing this calendar will help you plan for the semester. The grades pages are to be turned in twice (directions will be posted on Canvas). I hope these assignments help you stay organized throughout the semester and help you set goals if you'd like to improve your grade.
- 8) Participation Your lab reports, and in-class activities during lectures will be used to calculate your participation grade. As long as you come to class on time and actively participate in lecture and lab, you will earn full credit. Lecture activities may include quizzes (these will not be graded) to help you assess your own understanding of course materials. Lecture activities may also include feedback for me about the course, group brainstorming, short debates, or review games.

Extensions

I cannot grant extensions on mastering assignments. For other assignments:

If you have another major assignment due the same day, a prohibitively heavy work schedule, a major life event, a medical procedure, an unforeseen emergency, or another conflict with the due date of an assignment, please request an extension as soon as possible (please plan ahead!). If you need an extension please email me by 12 noon at least 3 days before the due date (if possible) or as soon as possible in emergency situations. I will work out extensions on a case-by-case basis. Life is unpredictable and you may have many other responsibilities. If in doubt, request an extension!

Late Assignment Policy

I cannot accept late mastering assignments. For other assignments:

All assignments are due on time at the start of lecture. All late assignments will lose 2 points per day they are late. For paper assignments, you can email me a scan or picture of each page of the assignment and deliver the paper copy when possible. If the digital file is unreadable it will not be accepted, check before you send and use pdf format. Work forgotten at home or turned in after the lecture starts is still late.

Academic Conduct

- Lab reports and study guides should be worked on with notes and/or in groups, but make sure to record on the assignment who you worked with. For study guides, each individual student must write their own answers in their own words. All other work must be completed alone. Exams and lab practicals must be completed without notes or aids including electronic devices (unless specified by DSPS).
- Using the words, work, or ideas of others without proper attribution, or using class materials during exams is against the academic code of conduct. Consequences may include receiving a 0 on the work, a subtraction of points, an "F" in the course, and/or referral to the Dean of the College. Please ask for help instead of resorting to deception. I want you to succeed.

Attendance:

- Attendance at lecture and lab is mandatory. Notify me as soon as possible about any known or potential scheduling conflicts (such as religious observances, family responsibilities, job or school interviews, or team performances/activities). In the event of an unavoidable conflict I will work with you to find solutions.
- In the event of mental or physical illness, emergency, or other unavoidable circumstance please email me as soon as you can to discuss next steps.
- I will not give Makeup lecture exams without a written medical excuse. Vacation and/or travel plans do not qualify. If you have a written medical excuse, email me before the date and time of the exam.

Tips for how to be successful in this course:

- Regularly check the course schedule and plan at least a week ahead.
- Work with others as much as possible – explaining concepts out loud helps to identify knowledge gaps and helps solidify memory of facts and vocabulary. Those who are new to a topic are often the best at explaining it!
- Pre-printing the lecture notes can help you stay focused and organized during lectures.
- Feel free to bring food and/or drinks to lecture, it might help you stay focused. In labs, only water in sealed containers is allowed.
- Review lecture notes after each class and write down any questions you have for lab and/or office hours. Doing this every week will prevent you from being overwhelmed when you start studying for exams.
- If you miss a question on an exam, quiz, or activity, go back and figure out the correct answer.
- Use the student services. Biology tutoring is available in B202 on Tuesdays and Thursdays from 5-6pm. The writing center offers drop-in one-on-one tutoring in B261.
- If you have a question or are confused, *please speak up!* Other students are almost certainly confused as well but may not want to ask. I will do my best, but I don't always know when I've lost you!
- Every class and every student is different – work with me to make this the most effective learning environment it can be by communicating your needs and giving me feedback.