

# BIOLOGY 10

Laney College/Fall 2019

Instructor: Riva Bruenn e-mail: [rbruenn@peralta.edu](mailto:rbruenn@peralta.edu) Office Hour: Wednesday and Thursday 5:30-6pm

## BIOL 10 Lecture

Tuesdays (L1-LEC, Class #: 41355)

6:00 – 8:50 pm

Room: B210

## BIOL 10 Lab

Wednesdays (Section L1LA, Class #: 41356) OR

Thursdays (Section L1LB, Class #: 41357)

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

Essential Biology with Physiology Campbell 6e (Pearson Publishing) Simon Dickey Reese (authors)

ISBN-13: 978-0134711751 ISBN-10: 0134711750 – can purchase and/or use library and classroom copies

Laney College Biology 10 Lab Manual – will be provided

Biology 10 Lecture workbook - will be provided

3 Scantron (882E or equivalent) forms. Bring 1 form and a #2 pencil to each lecture exam. - available from bookstore

### Communication

Check Canvas and your email regularly for class announcements or messages. Make sure your Peralta email and Canvas notifications are on and correct. The best way to contact me is through Canvas. It is your responsibility to register for Canvas, to stay updated with course details and deadlines, and to drop the course if you decide to.

### 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.

**\*\* 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 final letter grade will be calculated based on the following:

Assessment	# of points	% of grade			
3 exams (50 each)	150	~33.3			
3 lab practicals (25 each)	75	~16.7			
12 lab reports (5 each)	60	~13.3	A	90-100%	405-450 pts
12 quizzes (5 each) – top 10 count	50	~11.1	B	80% +	360-404 pts
2 Essays (25 each)	50	~11.1	C	70% +	315-359 pts
Study guide – top score counts	20	~4.5	D	60% +	270-314 pts
Lab study guide – top score counts	20	~4.5	F	< 60%	< 270 pts
Calendar assignment	5	~1.1			
2 grades assignments (5 each)	10	~2.2			
Participation	10	~2.2			

*\*I will use **raw points** to calculate your grade. I will round up if you are between points (404.3/450 → A)\**

### Assessments of the SLOs

- 1) Lecture Exams There will be 3 non-cumulative lecture exams. These exams are designed to test your understanding of lecture topics and the reading.
- 2) Lab Practicals There will be 3 lab practicals. 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 1-1.5 hours. You may not leave until released, and you will not receive extra time if you arrive late.
- 3) Lab Reports There are 12 labs over the course of the semester. To receive full points, show me your completed lab (including summary questions) and answer check out questions with me before you leave. 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) Quizzes 12 quizzes on Canvas (best 10 will count). These quizzes are open book, and you have 2 attempts (best attempt counts). The purpose is to gauge for yourself how well you understand the material, identify areas you may need to study more, and prepare you for the multiple-choice section of the lecture exams.
- 5) Current Events Essays Two essays about current scientific research. A 2-page analysis of a current article, video news story, or podcast about new scientific research in 5-paragraph form. In the essay, include the names of the researchers, the institution where the research was conducted, explain what the research is, explain what we learned in class and how it relates to the research, and why the research is important or interesting from your perspective. Guidelines, grading rubric, and submission link will be provided on Canvas.
- 6) Study Guides I will post a study guide for each lecture and lab exam. For exams 1 and/or 2, turn in a completed lecture and lab study guide for credit. Your best lecture study guide grade will count, and your best lab study guide grade will count. For full credit, write out each question and answer. I will not collect the study guides for the final exams. I strongly encourage you to work on your study guides in groups, but each student must write their own answers in their own words. I hope completing the guides helps you organize your knowledge and study efficiently.
- 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. 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 10 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, you will earn full credit. Lecture activities may include quizzes (these will not be graded for correctness) 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**

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 cannot grant an extension once the deadline is passed except in emergencies. I will work out extensions on a case-by-case basis. If in doubt, request an extension!

### **Late Assignment Policy**

All assignments are due on time at the start of lecture. If you are turning work in late, it is your responsibility to communicate with me. All late assignments will lose 10% 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 will be considered late.

### **Academic Conduct**

- I encourage you to work on Lab reports and study guides in groups. All other work must be completed alone. For all written assignments, each student must write their own answers in their own words. 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 study 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 Division. Please ask for help instead of resorting to plagiarism or deception. I want you to succeed.

### **Attendance:**

- Attendance at lecture and lab is mandatory. Email 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 unexpected and unavoidable circumstance please email me as soon as you can to discuss next steps.
- I will not give Makeup exams except in the case of an emergency, with an explanation of the circumstances. Vacation and/or travel plans do not qualify. If you have an emergency, email me as soon as possible. If you have a scheduling conflict, email me at least 14 days before the exam.

**My 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!
- 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.
- 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.

*On the last exam, I ask students to give advice to next semester's students. Here are responses I got with the most common themes:*

**Advice from Summer 2019 students:**

- "Don't miss a class – you'll be lost"
- "Ask lots of questions"
- "take lots of notes"
- "try not to be shy and talk to your classmates. If you have questions just ask them"
- "Do all the study guides. It has all the info to do well on the tests"
- "Organize your time so that you get everything done"
- "Advocate and communicate"
- "go to office hours once things start getting confusing"
- "start the study guides early"
- "work in groups"
- "take time to ask questions if even slightly unsure of something"
- "study the stuff that's harder to understand"
- "enjoy the class cause it's fun"
- "see how you can apply what you're learning to how you see the world around you – it will make the class relevant and fun"
- "be ready for a lot of information"
- "stay on top of your work"
- "try to understand things (especially in lab) instead of just memorizing; it will help you more in the long run"
- "do all the assignments"

Name: \_\_\_\_\_

Add your own events and responsibilities

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	20-Aug	21-Aug	22-Aug	23-Aug
<i>Chapters 1 &amp; 2</i>		inquiry (1)	inquiry (1)	quiz 1 due
26-Aug	27-Aug	28-Aug	29-Aug	30-Aug
<i>Chapters 2 &amp; 3</i>		chemistry (2)	chemistry (2)	quiz 2 due
HOLIDAY - LABOR DAY <i>last day to add /drop w/o W</i> <i>Chapters 3 &amp; 4</i>	3-Sep	4-Sep	5-Sep	6-Sep
	Calendar due	microscope (3)	microscope (3)	quiz 3 due
10-Sep	10-Sep	11-Sep	12-Sep	13-Sep
<i>Chapter 4 &amp; 5</i>		molecules (4)	molecules (4)	quiz 4 due
	17-Sep	18-Sep	19-Sep	20-Sep
<i>Chapters 5 &amp; 6</i>	Essay 1 Due	cells (5)	cells (5)	quiz 5 due
23-Sep	24-Sep	25-Sep	26-Sep	27-Sep
	Lec Exam 1 Lecture study guide 1 due	Practical 1 Lab study guide 1 due	Practical 1 Lab study guide 1 due	
30-Sep	1-Oct	2-Oct	3-Oct	4-Oct
<i>Chapters 6 &amp; 7</i>		breathing oxygen (6)	breathing oxygen (6)	quiz 6 due
7-Oct	8-Oct	9-Oct	10-Oct	11-Oct
<i>Chapters 8 &amp; 10</i>	Grades 1 due	making new cells (7)	making new cells (7)	quiz 7 due
14-Oct	15-Oct	16-Oct	17-Oct	18-Oct
<i>Chapters 10 &amp; 9</i>		DNA (8)	DNA (8)	Last to file AA/AS quiz 8 due
21-Oct	22-Oct	23-Oct	24-Oct	25-Oct
<i>Chapters 11 &amp; 12</i>	PD DAY - no class Essay 2 Due	changing DNA (9)	changing DNA (9)	quiz 9 due
28-Oct	29-Oct	30-Oct	31-Oct	1-Nov
<i>Chapter 14</i>	Lec Exam 2 Lecture study guide 2 due	Practical 2 Lab study guide 2 due	Practical 2 Lab study guide 2 due	
4-Nov	5-Nov	6-Nov	7-Nov	8-Nov
<i>Chapters 13 &amp; 15</i>		natural selection (10)	natural selection (10)	quiz 10 due
11-Nov	12-Nov	13-Nov	14-Nov	15-Nov
VETERANS DAY <i>Chapters 16 &amp; 17</i>	Grades 2 due	plants & fungus (11)	plants & fungus (11)	Last drop w/W quiz 11 due
18-Nov	19-Nov	20-Nov	21-Nov	22-Nov
<i>Chapters 18 &amp; 19</i>		animal survey (12)	animal survey (12)	quiz 12 due
25-Nov	26-Nov	27-Nov	28-Nov	29-Nov
<i>Chapters 20 &amp; 21</i>		open lab	THANKSGIVING HOLIDAY	HOLIDAY
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec
	Practical 3			
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec
	10 - Lecture Exam 3			

**GRADES PAGE** - You'll turn in this assignment twice (Grades 1 and 2). If you are not earning at least a C, please meet with me to go over an Action Plan.

ASSIGNMENT TYPE	SPECIFIC ASSIGNMNT	YOUR SCORE					POSSIBLE POINTS				
QUIZZES	#1 - 5										
	#6 - 10										
ESSAY	#1 and 2										
LECTURE STUDY GUIDE	(for exam 1 or 2 only) best score counts										
LAB PRACTICAL STUDY GUIDE	(for exam 1 or 2 only) best score counts										
CALENDAR											
GRADES ASSIGNMENT	#1										
	#2										
LABWORK <i>Be sure to record your scores each lab</i>	#1 - 6										
	#7 - 12										
LECTURE EXAMS	#1										
	#2										
	#3										
LAB PRACTICALS	#1										
	#2										
	#3										
PARTICIPATION (use tally marks)											
EXTRA CREDIT											N/A
For grades asmt 1:	<b>TOTAL #1 (add all)</b>										
For grades asmt 2:	<b>TOTAL #2 (add all)</b>										

Now, figure out where you are at in class by filling in this section:

	Your % so far	Your letter grade so far	Your goal letter grade	Min. class points for goal letter grade	How many more class points do you need to get that grade?	Are there enough points left in the class? (give # of pts left)
	$\left(\frac{\text{Your Score Total}}{\text{Possible Points Total}}\right) \times 100$	A (90+) B (80+) C (70+) D (60+) F (<60)	A B C D	A= 405 B= 360 C= 315 D= 270	Ex. If goal is B: 360 – your score total = ?	450 – total possible points so far = ?
<b>Grades 1:</b>						
<b>Grades 2:</b>						

Ask for help figuring this out if you need it!!