

GENERAL BIOLOGY (BIOL 1B)

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Course Description:

BIOL 1B is a continuation of BIOL 1A. This course covers the origin of life, evolution, classification, plant structure and function, ecology. BIOL1A is a prerequisite. It will serve as a base for learning more about the specific areas of biology in other courses.

Topics: (both semesters are listed here)

<i>BIOL 1A</i>	<i>BIOL 1B</i>
Cell Biology and biochemistry (Ch 1-12)	Biodiversity (Ch 26-34)
DNA and Genetics (Ch 13-21);	Plants form & function (Ch 35-39)
Animals, form, and function (Ch 40-51)	Evolution (Ch 22-25) & Ecology (Ch 52-56)

Materials and Technology Required:

- Textbook: [Biology by Campbell](#) and [Van de Graaff's Photographic Atlas](#)
- Computer with access to Canvas – must have the ability to upload files, take exams, record video
 - Be aware that some phones do not support all types of quiz questions and may limit your ability to complete some assignments
 - Laney College does have a [Chromebook lending program](#) to help support you
- Reliable internet (if you have difficulties with either of these, let me know)
- To come to campus, you will need Campus Shield. For more info on that, check out the [Safe Peralta site](#)

Student Learning Outcomes - Big picture topics that I would hope you gather through the semester.

1. Explain the complexity of ecosystems, the component parts, and humans' place in the ecosystem; Critique current methods of dealing with ecosystems and ecological issues through discussion and seminar papers.
2. Demonstrate an awareness of continued threats to our global ecosystems and appraise individual efforts in environmental issues.
3. Explain how all organisms are connected by cell structure, energy sources, and evolutionary lineage in-class discussion and on exams. Correlate information on cell structure and animal systems learned in BIOL 1A with evolutionary lineage discussed in BIOL 1B.
4. Synthesize the information in class on ecology, evolution, and organismal diversity in a research paper and oral presentation on a given topic.
5. Write clear, well-organized lab reports. Draw accurate representations of microscope slide images to identify organisms of the living world in the laboratory. Analyze the results of laboratory experiments and evaluate sources of experimental error.

Format and General Information

Biology is a complex and interconnected subject. Sometimes questions in lectures will lead us to explore topics that do not seem directly related to the subject matter at hand but are important. Many students find it helpful to read the chapters before the lectures. Review the lab before you attempt to complete the work. After reading the initial explanation of the lab activities, you will work individually or in groups to complete the assignment. You are expected to budget your time to complete the assignments. I recommend meeting (virtually) with others to complete the lab together.

Two important things to note

When we consider the course material:

Although most of the material 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 the 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.

The Board approved a vaccination policy that is stated as follows effective 8/2/2021:

As a condition of employment all existing and new Peralta Community College District (PCCD) faculty, classified employees, administrators, hourly employees (short-term temporary employees), contract employees, and student employees (henceforth referred to as “employee groups”), must provide proof of “full” COVID-19 vaccination (as defined by the U.S. Center for Disease Control) or submit a request for exception on medical, disability, religious grounds, or a deferral based on pregnancy. In addition, all non-COVID-19 vaccinated employee groups will be required to wear N95 Masks at all times while on PCCD controlled property; and must be tested weekly for COVID-19.

Masks are optional in our classroom, however, I want to be sure folks respect the decisions of other people.

Assessment (1000 points)

(some of these links will unlock as you move through the course)

Quizzes (20 points)

There are two quizzes that you must complete online. One covers the material in this handout and the calendar. The second is a review of your microscope knowledge and needs to be completed before the first lab where we use a microscope. To use the microscopes in the lab, you have to score 100% on the microscope quiz.

Group Work and Discussions (60 pts)

As part of our online learning community participation, you have Discussions in Canvas. Some are with the whole class and some are within your group. You will be taking a survey so I can get an idea of your schedule. From this, I will be setting up groups after the first week of classes. You can also set up Conferences with each other to create study groups. You'll see directions for each discussion with a grading rubric.

Group Work: You will be asked to meet with your group to prepare presentations for the rest of the class for certain labs. This helps prepare you for the presentations at the end.

Discussions: There are a few areas where we will be discussing things as a class. Some relate to the lab/group work and some relate to AVA assignments. A substantive post in the discussion (at least 100 words) includes reflecting on the topic and respectfully responding to two other folks in the class. There are rubrics for these discussions. You are also welcome to start your own discussions to support each other.

Calendar and Grades Pages (40 pts)

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 that one. Once this is filled out, you will submit it to us. Turning in the Calendar is your acknowledgment that you are aware of the dates assignments are due and exam dates. We also ask that you fill out the grades page three 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. Be sure to read the directions for both in Canvas. **Be sure you turn it in by the due date in Canvas.**

Article and Video Analysis (60 pts)

Six assignments involve reading an article or watching a video and then answering questions about the information. Many of these address issues of bias in science, environmental racism, or science history. These assignments are noted in Canvas as “AVA” and the topic. **Be sure you turn it in by the due date in Canvas.**

Field Trip (30 points)

We will be going on multiple field trips during the semester. One virtual and a few outside trips if we are able. Two will occur during lab time, others will occur on other days.

Lab Reports (240 points)

Lab reports will be turned in throughout the semester involving sketches, answers to questions, and observations and data analysis of results obtained in class. If we use the microscope or microscope images, you are expected to provide a sketch with labels of what you see in the lab report. **Be sure to label your slides!** The expected information to be included in the lab report will be explained at the beginning of class.

Informal Reports: You are required to turn in 10 informal reports throughout the semester (you must turn in at least 2 per test section). They are graded at 10, 8, or 5 points. These will include sketches and/or questions from the lab handout. Dates on the Calendar correspond to the date we will be conducting the lab. They are **due the Friday** of the week we conduct/complete the lab.

Formal Reports: You are required to turn in 4 formal reports throughout the semester – one per test section. These lab reports should be typed and submitted digitally via Canvas. The first formal lab has a pre-lab assignment associated with it. See Canvas for specifics. Formal lab reports are noted in the title of the lab in Canvas and involve simulations. **They are due 1 week after the lab was completed.**

- Peer Review Pre-lab – As a part of the Formal Lab Write Up, you will be turning in a pre-lab. I will pair you up to review each other's pre-labs before you complete the lab. See Canvas for more details.

Tell Me What You've Learned (400 points)

To assess your understanding of lecture material, reading, and lab activities, there will be 4 chances to tell me what you've learned (exam) at the end of the module. Each is worth a total of 100 points. Exams will cover material for lecture and lab and are closed book. You must be able to recognize and define the terms learned in class and answer T/F, multiple-choice, fill-in, or short essay questions. Exams will have lab practicals as well as a written part of the exam. Lab Practical will be held in person in the lab and then the written part will be open after the lab practical and are open until midnight. There are practice practicals to help you prepare for these. **The due date posted in Canvas** is the date of the lab practical as well as the date the written section exam opens up.

Research Paper and Oral Presentation (120 points)

A cumulative research paper on an assigned topic will be due. You will be asked to submit your topic early in the semester. At the end of the semester, you will give an oral presentation on your research project. This project combines information learned throughout the semester. See directions and additional aspects of the assignment on Canvas. Be sure you turn these assignments in by the "due" date in Canvas.

Participation/Class Expectations (30 pts)

Each person is expected to attend class regularly, and to participate in office hours, discussions, and virtual interactions with your fellow students and professors. Setting up a schedule when you regularly work on the class is important to your success in the class. You will be given points dependent upon how well you achieve these goals. If you are meeting with your group, I ask that you record the session via Conferences in Canvas. Students start with 70% of these points and if you complete the work, take exams, participate at a minimal level, your points will remain at 70%.

1. You are responsible for knowing all the information in this course information and the syllabus. Please read over the calendar and take the syllabus quiz that is online to show me that you have read over this information. Questions that demonstrate you did not read the syllabus will lead to a decrease in these points. Questions clarifying that you did read it will not. (But please don't email me a question just to try to get more points)
2. You are responsible for dropping yourself from the course.

Extra Credit

There will be opportunities for extra credit. See Canvas for more information.

Grading Scale

Your grade is based on points. You have a “Keep Track of your Progress” sheet to be able to calculate your grade at any time throughout the semester. You are required to turn in the grades page with a running total twice – see calendar for dates. The class is 1000 points total - for grade breakdown check out the digital version of the syllabus or the Grades Page Assignment

A	90 – 100 %	D	60 – 69 %
B	80 – 89 %	F	below 59 %
C	70 – 79 %		

Late work: Late work can be submitted via the Assignment Comments on the Assignment page. I do not accept late work via email.

Important Notes About Contacting Me and Assistance

- If you feel lost or confused in this course, **please let me know via Canvas email. I will make every attempt to reply with 24-48 hours** except for the weekends. Please sign up for office hours in person chatting is better for you.
 - Check out this page [Communicating Online](#) for tips
- If you are a student with a disability, please let me know about your needed accommodations immediately. If you are a new student and need evaluation or verification of your needed accommodations, please contact [Student Accessibility Services](#) (SAS).
- Student resources and support info: Canvas Orientation, Support and Use in This Class
- You are responsible for knowing, and accountable for, all information in the class syllabus. Taking the Syllabus Quiz verifies to us that you have read this.
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