

BIOL 171L: Introduction to Biology I Lab

1 Credit

CRN 60020: W 10-12:45 (IMILOA 123 or online via zoom) OR CRN 60048: W 2-4:45 (IMILOA 123 or online via zoom)

Fall 2021

Instructor Information

Instructor: Anuschka Faucci, Ph.D.

Email: anuschka@hawaii.edu

Office Hours: by appointment over zoom or after class

Emails received after 4pm on Fridays will be answered the following Monday. Otherwise they will

be answered within 24hrs.

Windward Community College Mission Statement

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

Catalog Description

Laboratory to accompany BIOL 171.

Prerequisite: Credit for or registration in BIOL 171.

Recommended Preparation: High school chemistry or college chemistry.

Student Learning Outcomes

As a result of taking this course, students can expect to attain the following outcomes:

- 1. Use the scientific method of inquiry to investigate biological phenomena.
- 2. Apply the concepts learned in BIOL 171 to an experimental and hands-on observational setting.
- 3. Collect, reduce, and interpret biological data.
- 4. Prepare written objective reports describing and interpreting experimental and observational results.
- 5. Demonstrate the use of some of the standard tools of the biological scientist, such as microscopes, scales, spectrophotometers, computers, and other analytical tools.
- 6. Apply the standard analytical procedures of biology, such as chromatography, biochemical analyses, preparation of materials for microscopic examination, culture techniques, and statistical procedures (descriptive statistics and hypothesis testing).

Course Tasks and Grading

Student learning will be formally assessed in the following ways:

Course Tasks	Labs	Possible Points
Weekly Lab Quizzes (10 pts. each, lowest dropped)	2-13	120
Weekly Lab Notebooks (20 pts. each; lowest dropped)	1-13	240
Project Idea		20
Project Draft 1 (50 pts) & Draft 2 (20 extra pts)		50 (+20 extra)
Project Draft Peer Comments		50
Final Project (Project: 100 pts; speech: 20 pts)		120
Total Points		600

Grades will be assigned as follows:

A = 540-600

B = 480-539

C = 420-479

D = 330-419

F = 0-329

W = Official withdrawal from the course after the third week and prior to the end of the 10th week of classes (see catalog).

Students involved in academic dishonesty or repeated unsafe behavior will receive an "F" grade for the course.

Online Access

This is a **synchronous hybrid course**. This course will be taught in the classroom or over zoom at the scheduled time. Students MUST have access to a computer, the Internet, and use their **UH hawaii.edu email account** to participate in this course. Students must be available for class meetings on the scheduled day(s) and time. Format of labs might change last minute in accordance with COVID-19 and UH WCC safety and regulations.

All course material, quizzes and homework assignments will be posted on **Laulima** (laulima.hawaii.edu); therefore, access to this site is required. If you know ahead of time that you will need more time to complete an assignment, please email me before the due date.

You are expected to begin the assignments early so that you may retry them before the due date if you run into any technology-related issues. If the issues persist, please contact me via email before the due date.

Attendance, Make-up and Extension Policy

Students are expected to attend each lab session outlined in the class. While attendance will not directly be factored into your grade, successful completion of this course requires that you attend each lab session. There will be no make-up labs given unless approved in advance. If you know that you will be unable to attend a lab session, please e-mail me before the lab session. Please note that I will only give excuses for extenuating circumstances; this means any unforeseen illness, hospitalization, or death in the family. Dance recitals, friends visiting, or forgetting that you had a lab to attend, are not valid reasons. If you are absent or tardy, it is YOUR responsibility to obtain any notes or schedule changes from a fellow student.

There will be no make-up quizzes, lab notebook submissions, etc. given unless approved in advance. If you know that you will be unable to attend a lab session, you are asked to e-mail me before the lab session. Please note that I will only give extensions for extenuating circumstances; this means any unforeseen illness, hospitalization, or death in the family. Dance recitals, friends visiting, or forgetting that you had a lab to attend, are not valid reasons for an extension.

Lab Quizzes (Q)

Prior to attending each lab, you will be required to go over the lab material on Laulima (e.g., lab instructions, videos, reading materials, etc.) of that week in order to be able to understand what we will be doing during the lab as well as to hone in your chritical thinking and science reading skills. To make sure you are prepared for each lab there will be a pre-lab quiz before each lab. Pre-lab quizzes are due the day before the lab session (**Tuesdays**, **11:55pm**) and are worth **10 pts**! All quizzes are open book but with a time limit (please review materials ahead of starting the quiz). The lowest score of your quizzes throughout the semester will be dropped at the end of the semester. There are no make-up quizzes.

Lab Notebook (N)

You will be required to keep a lab notebook for BIOL 171L. It should be completed during each lab. It will be graded based on completeness, information provided, and organization (table of content, numbered pages, etc.). The first two pages should be used for a table of content (updated accordingly during the semester). Except for graphs and photographs, you should write in blue or black ink. Scans/photographs should be of sufficient quality and resolution that all parts of the document are clear and legible. Grading rubrics for lab notebooks are on Laulima. The lowest score of your lab notebooks throughout the semester will be dropped at the end of the semester.

Weekly Lab Notebook Submission:

- Submit by uploading to **Assignments on Laulima** (by 1:30 pm, Thursdays, on the day after the lab). Use the following format for file names to be uploaded: [Last name][Lab number][page number]. Ex: Faucci Lab 1 page 1. You can also scan the whole lab as one file using a free App, like CamScanner, with your phone.
- Late pages are subject to a 20% reduction per day late, up to 5 days late (-4 points per day).
- Submissions will be returned with comments. Please note these comments for future submissions (ex: if I point out something about the way your figures have been labeled, please follow these guidelines for future labs).
- You may want to leave a blank page or 2 between lab entries for additions/corrections.

Science Communication Project (P)

The purpose of this assignment is to learn about different ways of scientific communication. Each student will chose one specific format, content area and audience. Students will present their project idea and draft to their peers and comment on their draft on **Padlet**. The Final Project is due on **Laulima (Assignments) & Padlet** and will be shared with everybody during the last week of classes in form of short presentations. Details and rubrics are available on Laulima. Assignments about the Project (Idea, Draft, Peer Comments, Final Project) are all due **Tuesdays 11:55pm** on the due date.

Course Schedule (tentative and subject to change)

Week & Lab	Date	Topic	Due
1	Aug 25	Intro & Scientific Inquiry	N, Intro
2	Sep 1	Measurements & Units	Q, N, Comments
3	Sep 8	Biological Molecules	Q, N
4	Sep 15	Scientific Communication	Q, N, P Idea
5	Sep 22	Cell Structure	Q, N
6	Sep 29	Enzyme Kinetics	Q, N
7	Oct 6	Photosynthesis	Q, N, P Draft
8	Oct 13	Mitosis, Meiosis, Chromosomes	Q, N
9	Oct 20	Mendelian Inheritance	Q, N, P Comments
10	Oct 27	Phylogenetics	Q, N
11	Nov 3	Biotechnology	Q, N
12	Nov 10	Infectious Diseases	Q, N, P Draft 2
13	Nov 17	Bacteria & Protozoa	Q, N
14	Nov 24	Thanksgiving: Practicing/Reviews	
15	Dec 1	Final Project Sharing	Final P

Learning Resources

- All course materials are available on Laulima
- Please check your **UH webmail account** (___@hawaii.edu) frequently, as I often send announcements via email.
- Textbook: Biology 2e (not required) by OpenStax. Creative Commons. Free copy here.
- The Windward Community College Writing Center

Student Responsibilities

As a student of Biol 171L Lab, you are expected to...

- 1. Attend every lab session. There will be no make-up labs.
- 2. Purchase the needed PPE equipment and a composition notebook (details on the 1. day of class).
- 3. Follow proper laboratory policies and procedures.
- 4. View material (videos, lab handouts, etc.) posted on Laulima before each lab.
- 5. Complete quiz assignments on Laulima before lab each week.
- 6. During each lab: Listen to the instructor, participate in lab activities with a safe and respectful demeanor that supports the learning environment for all students.
- 7. Record lab methods, results, and observations in your lab notebook. Submit images of completed lab notebook to Laulima after lab each week.
- 8. Be responsible for your own learning: check your UH email account and Laulima account several times per week, contact the instructor or a classmate when you have questions, thoroughly go over the material and the textbook when you encounter a confusing topic, and generally take responsibility for your actions in relation to this class.
- 9. Use proper netiquette practices. Netiquette is defined as Internet etiquette and it can be applied to almost every form of online communication, email, forum discussions, web conferences (e.g. Zoom, Google Meet), and social media. Student Netiquette quick guide (accessible version).

MySuccess: Students may be referred for extra help or advising through <u>MySuccess</u>. Students can also explore <u>MySuccess resources online</u>

Disabilities Accommodations

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, royinouy@hawaii.edu, or you may stop by Hale Kākoʻo 106 for more information.

Sex Discrimination and Gender-Based Violence Resources (Title IX)

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

- Madoka (Doka) Kumagai, Confidential Advocate
Phone: (808) 348-0663 (cellular), (808) 956-6084 (office)
Email: kumagaim@hawaii.edu

- Desrae Kahale, Mental Health Counselor & Confidential Resource

Phone: (808) 235-7393 Email: dkahale3@hawaii.edu Office: Hale Kākoʻo 101

- Karla K. Silva-Park, Title IX Coordinator

Phone: (808) 235-7468 Email: karlas@hawaii.edu Office: Hale 'Ākoakoa 220

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University's Title IX resources and the University's Policy, Interim EP 1.204, go to manoa.hawaii.edu/titleix/

Academic Integrity

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through use of quotes or summarizing with reference to the original author.

In this class, students who commit academic dishonesty, cheating or plagiarism will have the following consequence(s):

- Students will receive a failing "F" grade for plagiarized assignments.
- All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

Alternate Contact Information

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alaka'i 121 Phone: 808-235-7422