



UNIVERSITY of HAWAII®
WINDWARD
COMMUNITY COLLEGE

BIOL 172L, Introduction to Biology II Lab

1 Credit (CRN 660084)

Thursday, 11:30AM - 2:15PM

Uluwehi B101

INSTRUCTOR: Mackenzie Manning
OFFICE HOURS: [ZOOM Office](#); by Appt.
EMAIL: mmanning@hawaii.edu
EFFECTIVE DATE: Spring 2025

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

Recommended Preparation High school biology and college level reading and writing skills.

Prerequisites Credit or concurrent enrollment in BIOL 172

Laboratory to accompany BIOL 172. Topics covered include: Protist and Fungus form and function; plant anatomy, reproduction and form and function; diversity of animal form and function and vertebrate anatomy, and ecology.

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 172 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. Apply standard analytical procedures for the comparative study of plants and animals, such as the handling of living and preserved materials for study, dissection procedures, preparation of materials for microscopic examination, and use of dichotomous keys.
6. Identify the diagnostic anatomical features of organisms representing major groups of plants and animals.
7. Identify the major systematic groups to which specimens of plants and animals belong.

ATTENDANCE POLICY

BIOL 172L is taught as an in person course. Please plan to be in the lab room each week. Regular attendance is MANDATORY. Because laboratories involve considerable set-up/take-down time and

supervision, students will NOT be able to make up missed laboratory activities. Regardless of the reason, **A STUDENT MISSING MORE THAN TWO SCHEDULED LABORATORY SESSIONS WILL NOT RECEIVE CREDIT FOR THE COURSE.**

Pre-lab quizzes will be administered at the beginning of the lab, it is important to be on time to complete the quizzes.

COURSE POLICIES

Communication

I will communicate with you frequently through the Announcements and Email tools in Lamakū. Please be sure to check your UH email and the Lamakū Announcements list daily.

Effort and Time

BIOL 172L is an intensive lab course that will require you to prepare for in person labs ahead of time, collaborate with your group members, and complete other tasks and skills. Expect to spend 6-8 hours per week on this course.

Participating in our Learning Community

Group work is required for many of our labs this term. The group work will be completed during our lab meeting times. Please see the schedule below for details.

Contacting the Instructor

If you have any questions or concerns about anything, please contact me via email: mmanning@hawaii.edu I will respond to you as soon as I can within 24-hours. Please also feel free to drop in to my online Zoom office hours Tues 12pm - 1pm or by appt.

Course Tasks, Assessments & Grading

Lab handouts/Field Trip Reflections:

Lab handouts/Reflections will be completed during lab and due the following week. They will be available as Google Docs. Upon completion of the handout, please upload to Google Assignments.

Pre-lab quizzes:

There will be a total of 9 quizzes that will be administered at the start of each lab. Each quiz will cover content from that day's lab activities so it is important to review the lab **BEFORE** coming to class that day to prepare.

Stream Ecology Presentation:

The final lab of the semester will be an intensive field lab over the course of three weeks. You will work in groups to collect, analyze and interpret the biological, chemical and physical data of a stream. The final report will be an oral presentation of this research in class. More details will be provided in Lamakū.

How to submit work through Google Assignments

Handouts and field trip reflections will be submitted through Google Assignment links. For the Handouts, you will be provided with a template that you will make a copy of and save to your Google Drive to complete. Each Google Assignment link for either a Handout or Reflection will be located in Lamakū for the week that we conduct that lab. Before uploading your assignment, please title the file with your last name, first name, lab day, and Lab#. An example is provided below:

LastName FirstInitial LabTitle.docx

ASSESSMENT TASKS AND GRADING

Final Grade

Your final grade will be calculated based on the following:

Handouts 8x20pts each	160 points	60% of final grade
Pre-lab quizzes/Field Trip Reflections 10x10pts each	100 points	20% of final grade
Intertidal Lab	20 points	5% of final grade
Stream Ecology Presentation	50 points	15% of final grade
TOTAL	330 points	100%

Letter grades will be assigned as follows:

- A** 90% or above in total points
- B** 80-89.9% of total points
- C** 65-79.9% of total points
- D** 55-64.9% of total points
- F** Below 55% of total points or informal or incomplete official withdrawal from course.
- I** Given at Instructor's discretion. See catalog for detailed description.
- W** Official withdrawal from the course by **Mar 28, 2025**

LEARNING RESOURCES

- Textbook: Morgan, J.G. & M.E. Brown Carter. Investigating Biology Laboratory Manual 9th Ed. Benjamin/Cummings Publishing Co, 2018. Auto access through Lamakū IDAP
- Worksheets and handouts will be available in Lamakū.

MySuccess: Students may be referred for extra help or advising through MySuccess. Students can also explore resources at MySuccess.Hawaii.edu and windward.hawaii.edu/MySuccess

TENTATIVE COURSE SCHEDULE

The following schedule is subject to change. Please consult the [Academic Calendar](#) for important dates throughout the fall term.

Week 1 Jan 16

Introductions, expectations and lab safety

Week 2: Jan 23

Handout 01 Lab 13: The Protists **DUE the following week, before lab**

Pre-lab quiz 1

Week 3: Jan 30

Handout 02 Lab 18: Animal Diversity I (Porifera, Cnidaria, Platyhelminthes) **DUE the following week, before lab**

Pre-lab quiz 2

Week 4: Feb 6

Handout 03 Lab 18/19: Animal Diversity II (Molluscs, Annelids, Nematodes) **DUE the following week, before lab**

Pre-lab quiz 3

Week 5: Feb 13

Handout 04 Lab 19: Animal Diversity III (Arthropods, Echinoderms, Chordates) DUE the following week, before lab
Pre-lab quiz 4

Week 6: Feb 20

Intertidal Lab - Field Trip to Sandy's Intertidal DUE the following week, before lab

Week 7: Feb 27

Handout 05 Lab 14/15: Plant Diversity (Seedless and Seed Plants) DUE the following week, before lab
Pre-lab quiz 5

Week 8: Mar 6

Handout 06 Lab 20: Plant Anatomy DUE the following week, before lab
Pre-lab quiz 6

Week 9: Mar 13

Lyon Arboretum Field Trip Reflection DUE the week after Spring Break

Week 10: Mar 20 SPRING BREAK - NO LAB**Week 11: Mar 27**

Handout 07 Lab 22/23: Fetal Pig I DUE the following week, before lab
Pre-lab quiz 7

Week 12: Apr 3

Handout 08 Lab 23/24: Fetal Pig II DUE the following week, before lab
Pre-lab quiz 8

Week 13: Apr 10

Ecology Field Lab I - Meet in Class

Week 14: Apr 17

Ecology Field Lab II

Week 15: Apr 24

Ecology Field Lab III

Week 16: May 1

In Class Presentations of Ecology Field Lab
Pre-lab quiz 9

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 the 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 grade for plagiarized assignments.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

[Windward CC Student Conduct Information](#)

[UH System Student Conduct Policy EO 7.208](#)

Include an AI Statement (is it ok in your class? if so, when/how?) Here are some [UH AI Recommendations](#) and [AI Icons & Sample Statements](#). Instructors should refrain from sharing or inputting student work into online AI tools, including AI detection tools, without obtaining student consent. Uploading student work has potential FERPA implications as well as potential copyright concerns. Additionally, the uploaded content could be used as data for AI training without the student's consent.

STUDENT RESPONSIBILITIES

- Expectations
- Additional policies (e.g., cell phones in the classroom, late work, attendance, missed work, extra credit, participation, netiquette)
- Any information you feel the student needs to know
- Students may check the [Student Notifications](#) page on the website for canceled classes

HOW TO SEEK ACADEMIC OR TECHNICAL SUPPORT

Academic Support

- [Windward Community College Library](#)
- [Library eResources](#)
- [Ka Piko Writing Lab](#)
- [Ka Piko Speech Lab](#)
- [Ka Piko Math Lab](#)
- [Evening and Online Learning at Windward Community College](#)
- [STAR Balance](#)

Technical Support

- [UH ITS Help Desk](#) – email help@hawaii.edu or call 956-8883 (or 1-800-558-2669) for Lamakū and most technology support. Available 24 hours a day, 7 days a week, including holidays.
- Student Tech Support - email winhelp@hawaii.edu, call 808-235-7437, or stop by in person at Hale La'ākea 228. Available Monday–Friday from 8:00 am–4:00 pm.
- Lamakū – Click on the [Lamakū Help](#) link in the menu bar at the top of the Lamakū homepage to fill out and submit a question and get your answer via email.
- [Information Security for Students](#)

COLLEGE POLICIES & SUPPORT SERVICES

Disabilities Accommodations Statement

The Windward Community College's Disability Student Services Office (WCC-DSSO) is committed to providing equal access to qualified students with disabilities.

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to participate fully in this class, you are encouraged to contact the Disability Specialist Counselor, Roy Inouye, to discuss reasonable accommodations that will help you succeed in this class. The Disabilities

Counselor can be reached at 808-235-7448, wccdsso@hawaii.edu, or stop by the office (Hale Kako'o 106) for more information.

TRIO PROGRAM

The Federal TRiO Programs are educational opportunity outreach programs designed to motivate and support students from disadvantaged backgrounds. TRiO includes six outreach and support programs targeted to serve and assist low-income, first-generation college students and students with disabilities in progressing through the academic pipeline from middle school to post-baccalaureate programs. Here is their contact info: <https://windward.hawaii.edu/trio/>

Basic Needs

Basic needs include food and housing, childcare, mental health, financial resources, and transportation. Student basic needs security is critical for ensuring strong academic performance, persistence and graduation, and overall student well-being. If you or someone you know is experiencing basic needs insecurity, please see the [UH System Basic Needs website](#).

Mental Health Counseling

Mental Health and Wellness at Windward Community College counseling services and activities on campus to support students' life goals as well as their academic goals. Information about services can be found at the [WCC Mental Health & Wellness website](#).

LGBTQ+

The University of Hawai'i system and Windward Community College are committed to building an inclusive community that supports and advocates for all Students, Staff, and Faculty. We welcome all members of our campus community to our campuses: transgender, māhū, and people of all gender identities. All members of our campus community deserve a work and educational environment free from harassment or bullying based on their sexual orientation, gender identity, or expression. University of Hawai'i Commission on LGBTQ+ Equality at their website: <http://www.hawaii.edu/offices/president/lgbtq/> Windward Community College Commissioner: Scott Sutherland, scottjks@hawaii.edu

UH Alerts

The UH Alert emergency notification system alerts the university community in the event of a natural, health or civil emergency. The information you provide will only be used in the event of an emergency that impacts the health and safety of the UH community or the closure of whole campuses. It will not be shared with others or used for routine UH communications or announcements. To sign up, visit [UH Alerts website](#) for more information.

Financial Aid

If you are receiving financial aid and are contemplating not completing the course, BEFORE you withdraw, it is highly recommended that you contact the Financial Aid Office at 808-934-2712 or email them at wccfao@hawaii.edu to discuss the impact this decision may have on your financial aid eligibility.

Student Conduct Code

Windward Community College follows the University of Hawai'i Code of Student Conduct which defines expected conduct for students and specifies those acts subject to University sanctions. Students should familiarize themselves with the Code of Student Conduct since, upon enrollment at Windward Community College, the student has placed herself/himself under the policies and regulations of the University and its duly constituted bodies. The disciplinary authority is exercised through the Office of

the Vice Chancellor for Student Affairs. Copies of the Student Conduct Code are available at the Office of the Vice Chancellor for Student Affairs or [online](#).

Title IX - Sex Discrimination And Gender-Based Violence Resources

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:

Leslie Cabingabang, UH System Confidential Advocate
Phone/Text: (808) 348-0432 or (808) 341-4952
Email: advocate@hawaii.edu
Office: Hale Kāko'o 107 (Wednesdays)

Mykie E. Menor Ozoa-Aglugub, J.D., Title IX Coordinator
Phone: (808) 235-7468
Email: mozoa@hawaii.edu
Office: Hale Kāko'o 109

Desrae Kahale, Mental Health Counselor & Confidential Resource
Phone: (808) 235-7393
Email: dkahale3@hawaii.edu
Office: Hale Kāko'o 101

Karen Cho, Deputy Title IX Coordinator
Phone: (808) 235-7404
Email: kcho@hawaii.edu
Office: Hale 'Alaka'i 120

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/