UNIVERSITY of HAWAIʻI
WINDWARD COMMUNITY COLLEGE
Ke Kulanui Kaiāulu o ke Koʻolau

# BIOL 171 Introduction to Biology I

Fall 2026

3 Credits | CRN 62006

## Windward Community College Mission Statement

*'O keia ka wā kūpono e ho'onui ai ka 'ike me ka ho'omaopopo i kō Hawai'i mau ho'oilina waiwai. Aia nō ho'i ma ke Kulanui Kaiāulu o ke Ko'olau nā papahana hou o nā 'ike 'ake akamai a me nā hana no'eau. Me ke kuleana ko'iko'i e ho'ohiki ke Kulanui e kāko'o a e ho'okumu i ala e hiki kē kōkua i ka ho'onui 'ike a nā kānaka maoli. Na mākou nō e ho'olako, kāko'o a paipai i nā Ko'olau a kō O'ahu a'e me nā hana no'eau ākea, ka ho'ona'auao 'oihana a me ka ho'onui 'ike ma ke kaiāulu— hō'a'ano a e ho'oulu i nā haumāna i ka po'okela.*

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

## Instructor Information

### How to Contact Your Instructor

Kyleigh J. Kuball

Office: Zoom room

Office Hours: Contact via UH email to set up appt.

Email: kyleighk@hawaii.edu

ZOOM: See “Zoom Room” on Lamakū site

### About

I am excited to get you all started learning more about biology! I love to encourage students to get internships and work experience, so let me know your interests, and I will send you any related internship and work opportunities I hear about. I check my emails regularly, so please reach out with any questions. Do not hesitate to send a follow-up email if you feel you need to; I appreciate reminders! I aim to have assignments graded before the corresponding quizzes, and to have quizzes back in time to relearn any material before the next quiz.

### 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: Alakaʻi 121
- Phone: (808) 235-7422

## Course Information

First semester of introductory biology for all life science majors. Topics include: Overview of the science of biology; Cell structure, chemistry, growth, and reproduction; Classical, chromosomal, and molecular genetics; Evolution, phylogeny, and systematics; and Biology and diversity of viruses and bacteria.

*Prerequisites: 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. Describe the fundamental biology of the cell, including cell anatomy, biochemical composition, cellular metabolism, respiration and photosynthesis, communication, growth and reproduction.

2. Describe the fundamentals of Mendelian genetics, the chromosomal and molecular basis of heredity, and apply these concepts to the mechanisms of evolution.

3. Describe the process of DNA replication and DNA transcription and translation from gene to protein, including gene regulation, and apply these processes to the reproduction and metabolism of the cell.

4. Describe the principles of evolution through natural selection, the principles of descent with modification, and the mechanisms involved in the evolution of populations and the origin of species.

5. Describe the history of life on Earth and the evolutionary relatedness of life on Earth through morphological and molecular phylogenies.

6. Describe the fundamental structure and function of viruses and bacteria.

### Required Materials

- L Textbook: OpenStax Biology 2e
- Assignments will be available on Lamakū through Assignable
- PowerPoints and pre-recorded lectures will be available in Lamakū

## Course Format

In this course, BIOL 171, you will be using OpenStax Biology 2e, a free online textbook. We will be going through chapters 1-24 in this course. Assignable, which you can access through Lamakū, costs $15 and includes all your assignments, reading modules, and activities to help you learn the material. Lectures and videos will also be posted on Lamakū. Each week of the course will have an associated module to complete. Students will log in to the Lamakū course homepage, and under each module labeled “week #,” they can access lectures, assignments, and all associated work for that week. Quizzes will also be found under these modules but will not be available until the access window opens and will close after 24 hrs. Additionally, discussion assignments will be given to get you thinking more about the material's applications. A link to the assigned Padlet page will also be available with your other assignments.

## Course Technology (Optional)

### Lamakū Learning Management System (https://lamaku.hawaii.edu/d2l/home)

- Lamakū automatically logs you out *if it does not detect activity for three hours*. A warning message will appear, notifying you of inactivity. Activity is defined as clicking a button in Lamakū, such as "Save Draft" or "Next" (in a test), clicking on a course tab, or taking an action that sends information to the server.

### Regular Substantive Interaction

Online courses at Windward Community College follow these guidelines for ensuring quality instruction: RSI Definition-WCC.

### Other Technology

Please review the privacy/security policies before using the technologies we will be using in this class. If you would like to discuss alternative options or technologies, please contact me.

- YouTube is used for delivering some of the course content (accessibility statement, privacy policy)
- Zoom is used for virtual office hours (accessibility statement, privacy policy)
- Padlet is used for some of the discussion activities (Padlet Accessibility Statement, Padlet privacy policy)

## Participation Verification

Campuses are required by federal regulations to verify students' participation in their classes. In accordance with Executive Policy 7.209, all students in the University of Hawai’i system are required to establish “participation” to ensure that they are not dropped from their class(es). Effective fall 2021, students who fail to participate by the late registration period for a class will be administratively dropped from that class. Students may also be dropped from dependent prerequisite and/or corequisite classes if neither course establishes participation.

## Grading Policy

I will communicate with you frequently through the Announcements in Lamakū and your UH email. Please be sure to check your UH email and the Lamakū BIOL 171 announcements list daily.

### Effort and Time

BIOL 171 is an intensive survey course of the study of biology that is appropriate for natural science majors and many health professions. **We have a lot to cover, and to properly learn the material, students should be committed to 8+ hours of study and focus each week.**

Please keep in mind that an online class will often take more time than a traditional classroom course since lectures are considered asynchronous. In this course, you need to spend time on your learning. Please plan this time into your schedule and **log in to the course multiple times each week.**

### Participating in our Learning Community

Even though this is an online course, I encourage you to connect with your peers. We will also engage in Padlet forums each week.

## Assessment Tasks and Grading

### Reading and lectures (30% of your total grade):

Assignments can be found under each weekly module. Complete all readings and watch the videos, and then test your knowledge for each chapter. It is recommended to test your knowledge by answering the critical thinking questions at the end of each chapter in your book.

### Quizzes (30% of your final grade):

Timed quizzes will be available on Lamakū each Friday at 12:00 am and due at 11:59 pm. You may use your notes from each chapter but no other resources.

### Padlet research discussions (20% of your final grade):

Each week a Padlet prompt will be posted (the link will be found under the weekly modules). Please create a video and post it to the Padlet page for that week's prompt. The prompts will primarily focus on reviewing current research in biology or reviewing topics from your book in a research-focused way.

### Final Project (20%)

A final Padlet presentation will be expected before the end of the class. This project/presentation will require you to use information from each of the chapters we studied to respond to a prompt, as in the weekly Padlets.

## Evaluation and Feedback

All assignments, minus the forums, will be graded through Mastering Biology and grades will be made available upon submission. Grades will be updated after each quiz/exam using the Gradebook tool in Lamakū, and you will be notified when updates are completed.

## Late Work and Missed Assignments

**Missed homework and study modules will have 5% deducted from the final score for each day the assignment is late**. Missed quizzes will be granted a make-up **ONLY for legitimate, documented emergencies** that are brought to the instructor's attention. If you think you might miss a due date, please reach out to me as soon as possible so we can figure out a solution.

## Final Grade

Your final grade will be calculated based on the following:

| | |
|---|---|
| Chapter assignments: 24, equally weighted | 30% |
| Quizzes: 4 total | 30% |
| Padlet discussion forums, equally weighted | 20% |
| Final Project | 20% |

Letter grades will be assigned as follows:

A 90% or above in total points

B 80-89.9% of total points

C C 65-79.9% of total points

D 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.

## Weekly Assignments

| Week | Dates | Important dates | Theme | Chapter | Quizzes |
|---|---|---|---|---|---|
| 1 | 8/24-8/28 | | The study of life; The chemical foundation of life | 1,2 | |
| 2 | 8/31-9/4 | | Biological macromolecules | 3 | Quiz 1 |
| 3 | 9/8 -9/11 | Labor Day (9/7) | The cell, Structure and function of plasma membranes | 4,5 | |
| 4 | 9/14-9/18 | | Metabolism | 6 | |
| 5 | 9/21-9/25 | 9/24 last day to drop without "W" grade | Cellular respiration; Photosynthesis | 7,8 | |
| 6 | 9/28 -10/2 | | Cell communication | 9 | |
| 7 | 10/5 - 10/9 | | Cell reproduction | 10 | Quiz 2 |
| 8 | 10/12 - 10/16 | | Meiosis and sexual reproduction; Mendel's experiments | 11,12 | |
| 9 | 10/19 - 10/23 | | Mondern Understandings of Inheritance, DNA structure and function | 13,14 | |
| 10 | 10/26 -10/30 | | Genes and Proteins | 15 | |
| 11 | 11/2 -11/6 | 11/2 last day to withdraw with "W" grade, Election Day (11/3) | Gene Expression, biotechnology and genomics | 18,19 | Quiz 3 |
| 12 | 11/9 - 11/13 | Veterans Day (11/11) | Evolution and the origin of species | 20 | |
| 13 | 11/16 -11/20 | | The evolution of populations | 21 | |
| 14 | 11/23 - 11/27 | Thanksgiving (11/26), non-instructional day (11/27) | Phylogenies and the history of life | 22 | Quiz 4 |
| 15 | 11/30 - 12/4 | | Viruses | 23 | |
| 16 | 12/7 -12/10 | 12/10 last day of instruction | Prokaryotes | 24 | |
| 17 | 12/14 - 12/18 | Exam Week | Final project due | | Final project |

**9/7 Labor Day (Federal Holiday)*

****11/2 Last Day to Withdraw with a W***

**11/3 Election Day (State Holiday)*

**11/11 Veterans Day (Federal Holiday)*

**11/26-27 Thanksgiving (Federal holiday)*

## Academic Integrity

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as using 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.

permissible for each assignment.

Windward CC Student Conduct Information

UH System Student Conduct Policy EO 7.208

### Regarding AI

In this course, students must be the primary and majority authors of the text, code, analysis, images, graphics, and all coursework products and assignments. **Do not use generative AI applications such as ChatGPT, Gemini, or similar, in whole or in part, to generate answers or complete assignments. This course is designed to facilitate critical thinking, and to get the most out of this course, learning to think through problems is essential.** Grammar and spell-checking tools, such as those integrated into MS Word or Grammarly (excluding the AI tool), may be used. If you have any questions about whether a particular tool or specific use is permitted, check with the professor.

## Student Responsibilities

- Regularly check Lamakū and UH email for announcements related to the course
- Make sure they have access to the textbook and resources
- Turn in assignments on time
- Email me ASAP (kyleighk@hawaii.edu) if there is difficulty with any of the above.

## 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 Laʻakea 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 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 Kakoʻo 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 Kākoʻo 107 (Wednesdays)

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

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

Karen Cho, Deputy Title IX Coordinator
Phone: (808) 235-7404
Email: kcho@hawaii.edu
Office: Hale ʻAlakaʻi 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/