

Course Syllabus

[Jump to Today](#)

 Edit



Chaminade
University
OF HONOLULU

Course Number: BI 216L-02

Course Title: Biology 216 Cellular and Organismal Biology II Lab

Department Name: Biology

School/Division Name: Natural Sciences and Mathematics

Term: Spring 2025

Course Credits: 1

Class Meeting Days: Th

Class Meeting Hours: 2:30 – 5:20pm

Class Location: Henry Hall Lab 3 (HL3)

Professor: Michael "DrD" Dohm, PhD

Phone: 808-739-4630

Email: mdohm[at]chaminade.edu <- Students, please use CANVAS Messaging

Office Location: Wesselkamper Science Center (WSC), Room 108

Open office hours: Tues 9 - 11:20am; Wed & Fri 9 - 10am or by appointment

1. University Course Catalog Description

Laboratory section accompanying BI216.

2. Course Overview

This laboratory course accompanies BI216 Cellular and Organismal Biology lecture which is an introduction to the cell biology of prokaryotic and eukaryotic organisms, with particular reference to relationships between structure & functions, the cell cycle & mitosis, organization of cells, roles of cell signaling & extracellular environment in establishing structures in animals & plants.

This laboratory will encompass an inquiry based student driven project centered around microbiomes and is designed:

- Prepare students for further education in advanced biology lab courses, or related fields.
- To present principal methods and techniques coupled with appropriate instruments utilized in the study of cellular and molecular biology.
- To allow investigation and problem solving through experimental methodology.
- Learn how to critically read scientific journal articles.
- Develop an appreciation for working collaboratively in research groups

3. Program Learning Outcomes

Upon completion the program in Biology, a graduating student will demonstrate the following competencies:

1. Apply the scientific method in the design and testing of hypotheses.
2. Transform and display, statistically evaluate, validate, and interpret scientific data and communicate the results of such analyses effectively both orally and in writing.
3. Acquire, summarize, and synthesize information from published scientific literature, databases and bioinformatics software to extract and interpret biological data.
4. Recognize the chemical and physical principles that underlie all life forms, and the biological organization at the molecular, cellular, tissue, organ, organism, and system levels that emerge from these principles.
5. Define the components and processes of genetic and epigenetic information transmission, and their determinant effects on the adaptive and evolutionary processes that they drive.
6. Evaluate the etiology of major human disease burden in terms of, pathophysiological mechanisms, epidemiology within populations and possible therapeutic approaches.
7. Integrate an awareness of bioethical issues to positively influence the application of science to service, justice and peace in the solution of societal problems.

4. Course Learning Outcomes and Linkage to Program Learning Outcomes

Students who successfully complete this course will be able to:

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7
1. Describe and apply the Scientific Method to observable phenomenon	X	X	X		X		
2. Design and perform an experimental protocol which may utilize PCR, gel	X	X	X		X		

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7
electrophoresis, DNA extraction, DNA sequencing and bioinformatics							
3. Analyze and interpret quantitative data	X	X					

5. Course Prerequisite

Concurrent registration BI216 required.

6. Required Learning Materials

All materials can be accessed through the Canvas Course Website

Course Website: <https://chaminade.instructure.com/courses/37677>

(<https://chaminade.instructure.com/courses/37677>)

7. Technical Assistance for Canvas Users:

- Search for help on specific topics at help.instructure.com
- Chat live with Canvas Support 24/7/365
- Watch this video to get you started with online guides and tutorials
- Contact the Chaminade IT Helpdesk for technical issues:
[helpdesk\[at\]chaminade.edu](mailto:helpdesk[at]chaminade.edu)
 (808) 735-4855

8. Assessment

A total of 500 points

	How many/often?	Each	Sub-total	Weight
Attendance	Weekly		50	20%
Lab (electronic) notebook	URL share		5	10%
	First check		15	
	Last check		30	
Homework		10	150	30%
Quizzes		5	50	10%
Exams		2	100	20%

	How many/often?	Each	Sub-total	Weight
Group project	1	50	50	10%
Total points			500	100%

Lab Notebook:

You will be engaging in original research in this laboratory and addressing scientific questions that have not yet been asked for this soil microbiome and other projects we work on during the semester. As such you MUST keep a proper research lab notebook to record what you did, why you did it and the data that you generate throughout the course of the semester. This notebook will be integral to your class discussions and other assignments. We use digital notebooks in this class.

Details and expectations about the notebook are available in CANVAS.

Homework and quizzes

cc

9. Grading Scale

Letter grades are given in all courses except those conducted on a credit/no credit basis. They are interpreted as follows:

- A 90-100% = Outstanding scholarship and an unusual degree of intellectual initiative
- B 80-89% = Superior work done in a consistent and intellectual manner
- C 70-79% = Average grade indicating a competent grasp of subject matter
- D 60-69% = Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work
- F <60% = Failed to grasp the minimum subject matter; no credit given

10. Course Schedule

Link to [Schedule BI216L \(https://chaminade.instructure.com/courses/37677/pages/schedule-bi216l\)](https://chaminade.instructure.com/courses/37677/pages/schedule-bi216l)

First notebook check	Week 5 - 6
Exam01	Week 10
Exam02	Week 14
Last notebook check	Week 15
Presentations	Week 16

Note: Every effort has been made to ensure that the material in this syllabus is accurate and complete. However, occasionally changes must be made in the printed schedule. Thus, the instructor reserves the

right to make any changes in the contents of this syllabus that she deems necessary or desirable. These changes, if any, will be announced as soon as the need for them becomes apparent.

11. Alignment of Natural Sciences Courses with Marianist and Hawaiian values of the University.

The Natural Sciences Division provides an integral, quality education: sophisticated integrative course content taught by experienced, dedicated, and well-educated instructors.

We educate in family spirit – every classroom is an Ohana and you can expect to be respected yet challenged in an environment that is supportive, inclusively by instructors who take the time to personally get to know and care for you.

We educate for service, justice and peace, since many of the most pressing global issues (climate change, health inequity, poverty, justice) are those which science and technology investigate, establish ethical parameters for, and offer solutions to.

We educate for adaptation and change. In science and technology, the only constant is change. Data, techniques, technologies, questions, interpretations and ethical landscapes are constantly evolving, and we teach students to thrive on this dynamic uncertainty.

The study of science and technology can be formative, exploring human creativity and potential in the development of technologies and scientific solutions, the opportunity to engage in the stewardship of the natural world, and the opportunity to promote social justice. We provide opportunities to engage with the problems that face Hawai'i and the Pacific region through the Natural Sciences curriculum, in particular, those centered around severe challenges in health, poverty, environmental resilience, and erosion of traditional culture. The Marianist Educational Values relate to Native Hawaiian ideas of mana, na'auao, ohana, aloha and aina. We intend for our Natural Sciences programs to be culturally-sustaining, rooted in our Hawaiian place, and centered on core values of Maiau, be neat, prepared, careful in all we do; Makawalu, demonstrate foresight and planning; `Ai, sustain mind and body; Pa`a Na`au, learn deeply.

12. Course and University Policy

12.1. Late Work Policy

Presence in class is mandatory & necessary in order for a student to fully grasp concepts. Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially withdrawing may receive a failing grade.

If you miss a class it is YOUR responsibility to ask (1) your classmates or (2) the instructor for the information that you missed and to pick up any handouts that may have been distributed.

Any missed work that is turned in late and graded may receive up to a one grade deduction. So if the assignment was graded as A work, due to being late it may be decreased to a B. After two weeks past deadline, they may receive zero points. Any missed work that is turned in late without any prior discussion with the instructor will not be accepted and will be given a score of 0.

12.2. Canvas "grading"

Canvas "grades" are tentative and not official. Canvas scores available to students are not official until the instructor announces such to the class. Official grading is done by the instructor and records are kept on the instructor's computer.

12.3. Grades of "Incomplete"

Students and instructors may negotiate an incomplete grade when there are specific justifying circumstances. When submitting a grade the "I" will be accompanied by the alternative grade that will automatically be assigned after 30 days. These include IB, IC, ID, and IF. If only an "I" is submitted the default grade is F. The completion of the work, evaluation, and reporting of the final grade is due within 30 days after the end of the semester or term. This limit may not be extended.

12.4. Writing Policy

This course does not have written assignments. However, students are expected to keep an up-to-date lab notebook, which includes

12.5. Instructor and Student Communication

The instructor's open office hours are posted at the top of the syllabus and at the course home page in CANVAS. Students do not need to make an appointment during open office hours. Other times outside of office hours are possible, but an appointment will be necessary. Students are encouraged to send questions about this course to the instructor via CANVAS Message. Response time will usually take place within 24 hours of receiving your correspondence, or by the following Monday if the message is sent after Thursday.

12.6. Cell phones, tablets, and laptops

Students are encouraged to bring and use technology to lab class. Students are encouraged to bring laptops or tablets to class as the instructor will assign online activities and readings that will require the use of a laptop or tablet. Laptops and tablets should not be misused, such as checking distracting websites. Use your best judgment and respect your classmates and instructor. However, the following rules apply.

Music Devices and Cellular Phones: Unless specifically permitted by your instructor, use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes, as it is discourteous and may lead to suspicion of academic misconduct. Students unable to comply will be asked to leave class.

Out of consideration for your classmates, please set your cell phone to silent mode during class and place the device away into a backpack or other similar personal storage.

You may not record by camera or video or audio recording device any lab class or other class activity without prior permission from the instructor.

12.7. Disability Access

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the Counseling Center by the end of week three of the class, in order for instructors to plan accordingly. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at (808) 735-4845 for further information (counselingcenter[at]chaminade.edu).

12.8. Title IX Compliance

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

12.9. Attendance Policy

The following attendance policy is from the Academic Catalog:

Students are expected to attend regularly all courses for which they are registered. Student should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension, or by leaving a message with the instructor's division office.

It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially withdrawing may receive a failing grade.

Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course by the instructor, although the instructor is not required to withdraw students in that scenario. Repeated absences put students at risk of failing grades.

Students with disabilities who have obtained accommodations from the Chaminade University of Honolulu ADA Coordinator may be considered for an exception when the accommodation does not materially alter the attainment of the learning outcomes. Federal regulations require continued attendance for continuing payment of financial aid.

When illness or personal reasons necessitate continued absence, the student should communicate first with the instructor to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn by the instructor at the instructor's discretion.

There will no making up a missed laboratory exercise. If you miss a class it is YOUR responsibility to ask the instructor or your classmates for the information that you missed and to pick up any handouts that may have been distributed.

12.10. Academic honesty

Academic integrity is the commitment by all members of the academic community -- educators, researchers, scholars, and students -- to act with honesty, trust, fairness, respect, and responsibility. Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.

Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of grades, and plagiarism, in addition to more obvious dishonesty.

Questions of academic dishonesty in a particular class are first reviewed by the instructor, who must make a report with recommendations to the Dean of the Academic Division. Punishment for academic dishonesty will be determined by the instructor and the Dean of Academic Division and may include an "F" grade for the work in question, an "F" grade for the course, suspension, or dismissal from the University.

Violations of Academic Integrity: Violations of the principle include, but are not limited to:

- Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids, or other devices in an academic exercise.
- Fabrication and Falsification: Intentional and unauthorized alteration or invention of any information or citation in an academic exercise. Falsification is a matter of inventing or counterfeiting information for use in any academic exercise.
- Multiple Submissions: The submission of substantial portions of the same academic work for credit (including oral reports) more than once without authorization.
- Plagiarism: Intentionally or knowingly presenting the work of another as one's own original work (i.e., without proper acknowledgment of the source).

- Abuse of Academic Materials: Intentionally or knowingly destroying, stealing, or making inaccessible library or other academic resource materials.
- Complicity in Academic Dishonesty: Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.

Plagiarism includes, but is not limited to:

- Complete or partial copying directly from a published or unpublished source without proper acknowledgement to the author. Minor changes in wording or syntax are not sufficient to avoid charges of plagiarism. Proper acknowledgement of the source of a text is always mandatory.
- Paraphrasing the work of another without proper author acknowledgement.
- Use of generative artificial intelligence (AI) without permission by instructor. Sentences, paragraphs, or entire papers written by AI is not original work.
 - Students are encouraged to utilize change tracking and history functions of their word processing software to help document that a work is original to the student.
- Submitting as one's own original work, however freely given or purchased, the original exam, research paper, manuscript, report, computer file, or other assignment that has been prepared by another individual.

For the most up to date information, please refer to the Academic Honesty Policy on the Chaminade University Catalog website.

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