

Math 215

Applied Calculus I

Lectures: MWF 12:30 - 1:20 pm (HST)

Course Zoom link: <https://hawaii.zoom.us/j/97808484594>

PASSCODE: 215

This link will be used for lectures, office hours, recitations

Instructor:

Dr. Jake Ferguson (jakeferg@hawaii.edu)

Office hours: M W F 1:30 - 2:20 or by appointment

Teaching assistants:

Daniel Flores (dflores2@hawaii.edu)

Office hours: T R 1:30 - 2:20

Matthew Lorentz (lorentzm@math.hawaii.edu)

Office hours: W F 10:30 - 11:20

Students may attend office hours of either TA or of the course instructor.

Recitation sections will also meet on zoom.

Section 1 (Lorentz): T R 9:30 - 10:20 am

Section 2 (Lorentz): T R 12:00 - 12:50 pm

Section 3 (Flores): W F 9:30 - 10:20 am

Section 4 (Flores): W F 11:30 - 12:20 pm

Course description

Mathematics has become a critical tool for modern biology. In this introductory-level course, students learn the basic mechanics of differentiation and integration and how to model biological processes using these techniques. Our approach will emphasize computation and application in the life sciences over theory. Upon successful completion of Math 215, the student will be able to solve routine problems of differential and integral calculus and will be introduced to their numerous applications to the life sciences. They will be able to apply ideas of calculus and differential equations to the understanding of some fundamental biological processes.

This four-credit course is the first in a two-semester sequence. Credit allowed for at most one of Math 203, 215, 241, 251A. Prerequisite: Math 140 or assessment exam.

Textbook/WebAssign

Calculus, Probability, and Statistics for the Life Sciences by J. Stewart and T. Day, 1st ed. This is an eBook from Cengage Publishing. Students need to pay and sign up for WebAssign to access homework assignments, quizzes, and the eBook. **Go to webassign.com and enter the following class key:**

Math 215-01: hawaii 6275 2342

Math 215-02: hawaii 8589 7548

Math 215-04: hawaii 0859 5382

Math 215-05: hawaii 7977 0373

A detailed how-to guide to get started with WebAssign is available in the “How-to” folder on the “Resources” tab in Lulima. Additional student enrollment instructions:

<https://www.cengage.com/student-training/webassign/not-integrated/ia-no/>

Format

This is an online, synchronous course. Students **must** have access to an internet connection strong enough to watch streaming video. Students are encouraged to find a backup internet source in case their primary internet fails. Lack of access to the internet or poor internet connection speeds **are not** a justification for late work or missed class.

There will be participation points available during the lecture (5% of your grade). *In order for participation points to be recorded correctly, you must use a zoom account linked to your hawaii.edu email address.* If you have a zoom account under a different address, please let the instructor know that immediately. Video lectures are available to watch anytime during the course though there will also be points available during the lecture to encourage participation.

Quizzes & Exams

Quizzes will be held biweekly in recitation sections. Exams will be held in the lecture. To submit your work, you must have the ability to scan paper or write on a tablet device, save as a PDF, and submit on Lulima. If scanning paper, either a scanner or a smartphone app such as Apple Notes, Google Drive, or similar app should be used. Video tutorials on how to do this are posted in the Resources -> How-to folder in Lulima. During quizzes and exams you must keep your microphone and video on. We may also ask you to rotate your camera around the room to ensure that you are alone during the test.

The first quiz will just be to make sure that you can access and turn in quizzes/exams in Lulima. I will drop your lowest midterm exam grade but you may not drop your final exam grade.

Recitations

Recitations will include both groupwork (10% of your grade) and quizzes (15%). The TA's will do example problems, give group work, and/or quizzes during recitation. Group work exercises will be available on webassign, similar to the homework assignments.

Homework assignments

Homework assignments are viewed and submitted in WebAssign. Homework assignments for the week will be posted on Sunday night. They will be due at 11:59 PM on the date indicated in the syllabus but can be submitted at any point before the deadline. I will not accept requests to turn assignments late, though your lowest homework score will be dropped. I will make exceptions to the no late rule under extraordinary circumstances that will require a documented excuse.

Webassign will let you have up to five attempts to get the right answer. Homeworks are open note, book, and calculator. All work submitted must be the student's own.

Grades

Final course grades will be based on a weighted average as follows:

Homework	20%
Groupwork	10%
Quizzes	15%
Midterms	30%
Final exam	20%
Participation	5%

Academic Expectations UH Math Department undergraduate academic expectations are detailed at <https://math.hawaii.edu/wordpress/academic-expectations/>. Academic Honesty No student shall claim or submit the work of another as one's own. No dishonesty will be tolerated. Important Dates It is your responsibility to know about the important dates, such as deadlines to drop or withdraw from a course, holidays, exams, etc.

Classroom policies

Online policies

Our class will be held synchronously, online, using Zoom. All students are expected to follow these rules.

1. Create a free Zoom account, using your UH email (<https://zoom.us/freesignup/>) and use this to access the course.
2. Do not share access to class meetings with anyone who is not registered for the course.
3. Have a camera and microphone enabled, so everyone in the class can see and hear you.
4. Do not record meetings or take screen shots. Sharing these without people's permission is a violation of the Federal Education Rights and Privacy Act (FERPA).
5. Give your full attention to the class during class meeting time (i.e., no multi-tasking).

For further advice regarding online participation, go to the following web site (<https://www.uhonline.hawaii.edu/emergency-communication>) and read and understand "online netiquette."

Health guidelines

The COVID-19 pandemic has greatly affected the way in which we can interact with each other.. If you do choose to visit campus you are required to wear a mask at all times and to practice social distancing.

All employees, students, and visitors are expected to wear facial coverings when indoors (e.g., classrooms, laboratories, shops, and common spaces such as hallways and elevators) and where physical distancing is not possible. We must wash our hands, regularly and thoroughly, or use hand sanitizer when soap and water are not available. There will be hand sanitizer stations at the entrance of every building and every classroom and teaching laboratory.

UH Mānoa students and employees are instructed to self-report to University Health Services Mānoa (808) 956-8965 when they are symptomatic or have tested positive for COVID-19. The Hawai'i Department of Health will also report positive and suspected cases connected to UH Mānoa to University Health Services Mānoa (UHSM).

We must all practice safe physical distancing, maintaining a distance of at least six feet from each other. It will be easier this fall semester as there will be fewer people on campus. There will be far more online courses than usual, and our work to reconfigure classrooms and labs for physical distancing has reduced capacity by more than 50 percent. The same physical distancing concerns have also reduced student housing capacity by more than 30 percent. Many employees will continue to telework while some offices may adopt work rotations.

Plagiarism

The following is directly from the University of Hawai'i Catalog. *“Plagiarism includes, but is not limited to, submitting, to satisfy an academic requirement, any document that has been copied in whole or in part from another individual’s work without identifying that individual; neglecting to identify as a quotation a documented idea that has not been assimilated into the student’s language and style; paraphrasing a passage so closely that the reader is misled as to the source; submitting the same written or oral material in more than one course without obtaining authorization from the instructors involved; and “dry-labbing,” which includes obtaining and using experimental data from other students without the express consent of the instructor, utilizing experimental data and laboratory write-ups from other sections of the course or from previous terms, and fabricating data to fit the expected results.”* In Math 215, plagiarism will result in severe penalties, potentially including failure of the course.