Biology 171 – Introduction to Biology I- Section 1

University of Hawai'i – Mānoa, Spring 2020
12:00-1:20 pm, Tuesday/Thursday
Bilger 152 AND AFTER MARCH 31st online

BIOL 171 Team

Instructors	Office	Email	Student Hours
Dr. Rosana Zenil-Ferguson Section 1 (**Coordinator**)	EDM 309	**introbio@hawaii.edu**	TUESDAY AND THURSDAY 12:00-2:00 PM (HST)
Professor Thomas Iwanicki Section 2	4th floor EDM lanai	**introbio@hawaii.edu**	
Dr. Edward McAssey Section 3	EDM 413	**introbio@hawaii.edu**	

ALL ONLINE MATERIALS AVAILABLE IN LAULIMA>Resources
OR at https://roszenil.github.io/portfolio/introbio/

QUESTIONS FOR YOUR INSTRUCTORS- GOOGLE DOCS
https://docs.google.com/document/d/184Uku1DBZvJqKlpaSY99-R7RwcmPzOPnDL6bQmFDlgU/edit?usp=sharing

Do you have a problem?
Check the syllabus first and then fill in the ISSUE SOLVER form.
The issue solver form helps us recording your issues with all the necessary information for us to be able to solve them fast. We will have a solution for you in 48 hrs. Please help us at being efficient by sending your issue via the link.
Urgent problems please send an email to Dr. Zenil-Ferguson (**introbio@hawaii.edu**) with the subject "Emergency BIOL 171".

Course Philosophy : This course is an introductory biology course for all life science majors. You will learn biological principles by working individually and in teams to solve problems, analyze data, explore case studies, and identify solutions to real-world biological problems. These course emphasis goes from molecules (cell and molecular biology) increasing complexity to populations and species (evolution). You are expected to engage in the full process of science by asking open questions and study the materials.

Assigned Textbook: The textbook for the course - *Biology 2e* - is completely online and free. The online text readings are required so you are able to actually do your homework. If you are enrolled in the BIOL171 lecture, you have been automatically added to the student

list able to access the online textbook. We will update the list regularly the first week of class; if you register for the lecture after the course has started, it may take up to 24 hrs before you are able to login to the website. Make sure you have your hawaii.edu email and that you register with the exact name you have in Laulima. Students can access the textbook here: https://books.coe.hawaii.edu/biology171/

Homework: Your homework consists of reading the assigned chapters in OpenStax (you are encouraged to answer the quiz but it is not graded) before every class and then writing a weekly online post containing both a question and an answer using a new platform called Packback (due on Tuesday at 12pm) . Our goal is to use Packback for online discussion and to provide an active learning environment, in which your interests and needs will help instructors improving the topics we teach. You should expect an email from Packback indicating how to register. The cost of the tool is $25, *we can help a small proportion of students who cannot afford the tool, please ask your instructor directly*.

Required In-Class Technology: Students are required to bring an iClicker2 ($40) every day or to register for iClicker Reef phone app ($15). Physical clickers can be bought new from the UH Mānoa bookstore or used. Each student should register their iClicker through Laulima using the clicker's unique code. If you are using the phone app click on iclicker Reef app on Laulima, you should search for University of Manoa **BIOL171 Section 001**. Illegible iClicker codes can be scanned by the Center for Instructional Support in Kuykendall Hall Room 103.

What major skills will I gain or strengthen in BIOL171 and BIOL171 Lab:
Upon completion of Biology 171, students should be able to:

- ***Understand scientific reasoning***. You will develop the ability to understand the primary biological literature and question the processes that define life.
- ***Make observations, and ask scientific questions*** that lead to hypothesis building.
- ***Information literacy***. You will learn how to find relevant information and data.
- ***Evaluate and interpret scientific evidence*** in the form of data, graphs.
- ***Preparation for life after college.*** You will strengthen your time management skills, commit to ethical science.

Grading:
This course will be taught using a combination of lectures, homework assignments, and exams. Grade breakdown is determined by the scale below

A	92- 100%
A-	90-91.9%
B+	87-89.9%
B	83-86.9%
B-	80-82.9%
C+	75-79.9%
C	70-74.9%
D+	67-69.9%
D	60-66.9%
F	<60%

AFTER FINAL GRADE PERIOD YOU WILL HAVE THE OPPORTUNITY TO DECIDE WHETHER YOU WANT CREDIT OR NOT FOR THIS CLASS. YOUR INSTRUCTORS WILL SUBMIT YOUR LETTER GRADE AND YOU GET TO DECIDE VIA STAR-GPS.

The grading breakdown for the semester is as follows:

Online Homework Packback and Readings	20%
In-class participation (iclickers)	10%
Midterm 1	20%
Online quizzes and Final online Quiz	50%

We do NOT curve grades. The best way to succeed in the class is to participate, be thorough with the online homework and attend the Learning Assistant sessions. Don't miss participation and homework points, they make a real difference in your final grade.

Participation- The 80% rule:
You get your 10% participation in the class if you have 80% of the total points from clickers. This means that if during the whole semester we asked 100 clicker

questions you only need to have answered 80 to obtain 10% participation. Otherwise you get the percentage is calculated based on the points you got.

Online Homework through Packback:
Your participation on Packback will account for 20% of your final grade.
In order to receive points for participation, you must post **1 Question and 1 Answers** per week. There will be a **Tuesday deadline at 12:00 pm** for submissions in your Biol171 community each week. Late assignments will not be allowed. **LAST PACKBACK: MAY 5TH,2020**

Your weekly grade in Packback will be determined by participation and average curiosity score. Packback is worth 5 points per week:

- 1 point per question
- 1 point per response
- 3 points if your average curiosity score is above 50 for the week, 2 points if it is between 25-49, and only 1 point if it is 1-24.

To learn more about how Curiosity Points are calculated, visit Packback's help-desk. If you have any confusion about your grade throughout the term, first consult your participation report by clicking on "Track my own participation" under "MY COMMUNITY STATS".

Before you start posting, be sure to read the **Community Guidelines** found in the tutorial on Packback. If your post doesn't follow the Packback Community Guidelines, there is a chance it will be removed and you won't receive points for that post.

Note: it takes 24 hours for the Packback team to moderate a post and send a coaching email. If by any reason your post is moderated because it does NOT meet the Community Guidelines, you will need to edit and re-publish your post to receive credit for the week.

If you have ANY questions or concerns regarding Packback throughout the semester, please contact the customer support team at **holla@packback.co**!
Late assignments will not be allowed.

Exams: Exams are designed to test the students' knowledge of course concepts. Exams will be in scantron format, with questions focusing on **the application of terms and concepts, interpretation of figures and data, and integration of everyday experiences with course themes**. Make-up exams will NOT be allowed without evidence of an approved absence and must be completed within one week of the original exam date. There will be no retakes of exams.

Web Materials and Grade availability:
https://roszenil.github.io/portfolio/introbio/
Laulima: The course syllabus, lecture slides, exam study guides and any other supplemental materials will be posted for student access on Laulima. Student grades will also be posted on Laulima. You have **one week after grades have been** posted to let us know of a problem with your grade (via **ISSUE SOLVER**) otherwise you agree that grades in Laulima are correct and no changes will be made.

Expectations of the Students:
All students are expected to be present and engaged in classroom activities and prepared for the day's course material. Students should be prepared to commit **~8 study hours per week** in order to keep up with homework assignments and material presented in class. Attendance is expected at all lectures and exams. Students are expected to take personal responsibility for staying up-to-speed on course concepts. Questions are encouraged and welcomed, and can be addressed to the instructor during class or via email. Remember, **the instructor does not 'give grades;'** grades are earned by students.

Academic Honesty
Students are expected to abide by the UH Mānoa Student Code of Conduct, available online at http://www.studentaffairs.manoa.hawaii.edu/policies/conduct_code/ Cheating on exams or assignments will result in a failing grade in the course.

Learning Challenges and Accommodations
The Learning Assistance Center (www.hawaii.edu/csdc) holds workshops on note taking, textbook reading and exam preparation and provides tutors for individual courses.

Students with documented disabilities requiring accommodation should contact the Kokua Program at (808) 956-7511 or kokua@hawaii.edu. Information on the program's service (which include sign-language interpreters and note takers) can be found at http://www.hawaii.edu/kokua/

Responsibilities of the Instructor:
It is our responsibility as instructors to instill in students an excitement and appreciation for science; to provide a **safe environment** conducive to learning and free of harassment or discrimination; to **encourage students to question and discuss** the information presented and to form their own judgments based on critical thinking and intellectual discussion; to provide clear and accurate information on standards of achievement and procedures for evaluation (grades); to evaluate students' work in an **objective** manner, solely on the academic basis; to **be available** outside of class for additional questions and discussions and/or to reinforce course concepts as needed; and to **maintain confidentiality.** By law, instructors are not allowed to discuss your performance in this course with ANYONE, without your prior written consent. This includes parents and other instructors at UH Mānoa.

Spring Lecture Schedule

Week	Day	LECTURE TOPIC	Instructor	LAB TOPICS
1	T Jan 14	Course Introduction	Zenil-Ferguson	1. Writing Lab
	Th Jan 16	Themes and Concepts of BIology		
2	M Jan 20	MLK day		NO LAB
	T Jan 21	Macromolecules	Zenil-Ferguson	
	Th Jan 23	Macromolecules		
3	T Jan 28	Cell Structure & Function	Zenil-Ferguson	Cell Structure
	Th Jan 30	Transport/ Laws of Thermodynamics		
4	T Feb 4	Energy in living systems	Zenil-Ferguson	Respiration
	Th Feb 6	Metabolism without oxygen		
5	T Feb 11	Photosynthesis	Zenil-Ferguson	Photosynthesis
	Th Feb 13	Exam Review		
6	M Feb 17	President's Day		NO LAB
	T Feb 18	Exam 1	Zenil-Ferguson	
	Th 20	DNA Structure, Function, and Genes	Iwanicki	
7	T Feb 25	Duplication	Iwanicki	Replication, Transcription, Translation
	Th Feb 27	Transcription and Translation		
8	T Mar 3	Biotechnology and Cell Cycle	Iwanicki	Cell Cycle, Mitosis and Meiosis
	Th Mar 5	Chromosomes and Mitosis		
9	T Mar 10	Mitosis and Meiosis	Iwanicki	Mendelian Genetics - monohybrid crosses and dihybrid
	Th Mar 12	Mendelian Genetics		
10 ONLINE	T Mar 17	SPRING RECESS		NO LAB
	T Mar 19			
11 ONLINE	T Mar 24	Mendelian Genetics **QUIZ 1-DNA DUPLICATION**	Iwanicki	NO LAB
	Th Mar 26	Kuhio day		

12 ONLINE	T Mar 31	Review **QUIZ 2- TRANSCRIPTION AND TRANSLATION**	Iwanicki	Population Genetics and Peer Review
	Th Apr 2	**QUIZ 3 - MEIOSIS AND MITOSIS. MENDELIAN GENETIC**		
13 ONLINE	T Apr 7	Understanding evolution	McAssey	No Lab
	Th Apr 9	Evolution of Populations		
	F Apr 10	Good Friday		
14 ONLINE	T Apr 14	Formation of Species, speciation **QUIZ 4- EVOLUTION**	McAssey	Phylogenetics
	Th Apr 16	Phylogenetic Tree and DNA		
15 ONLINE	T Apr 21	Phylogenies and the history of life **QUIZ 5- SPECIATION AND PHYLOGENETICS**	McAssey	DNA fingerprinting
	Th Apr 23	The tree of life: Eukaryotes		
16 ONLINE	T Apr 28	The tree of life: Prokaryotes, Bacterial evolution **QUIZ 6- PHYLOGENETICS, HISTORY OF LIFE, AND EUKARYOTES**	McAssey	Antibiotic Resistance
	Th Apr 30	Viruses Evolution and Infection		
17 ONLINE	T May 5	What is life? **QUIZ 7- PROKARYOTES AND VIRUSES**	McAssey	NO LAB
	Th May 7	Review		
FINAL QUIZ ONLINE	**May 14 -16 OPEN FOR 2 HOURS**	**FINAL QUIZ** **SPECIFIC STUDY GUIDE WILL BE PROVIDED**	**McAssey**	