

ESYS 101 | Environmental Biology | Fall 2023

Dr. Eric Allen and Dr. Jennifer Taylor

Tues/Thurs 12:30 - 1:50 pm, Mandeville B-210, **In-person only**

DATE	LECTURE TOPIC	ASSIGNMENTS
Th Sep 28	1) Course Overview & Introduction to Microbial Biology (EA)	Quiz 1 (pre-assessment)
Tu Oct 03	2) Assessing Microbial Diversity (EA)	Report 1 Assigned Group Project 1 Assigned
Th Oct 05	3) Microbial Genomics & Environmental Genomics (EA)	
Tu Oct 10	4) Microbial Trophic Dynamics I: Accessing Energy Sources (EA)	Quiz 2
Th Oct 12	5) Microbial Trophic Dynamics II: Heterotrophy, Phototrophy, and Chemolithotrophy (EA)	Report Topic Due
Tu Oct 17	6) Microbial Biogeochemistry: Elemental Cycles (EA)	Group Project 1 Due Quiz 3
Th Oct 19	7) Microbial Cycling of Iron and Mercury (EA)	
Tu Oct 24	8) Microbial Activities: Pollution & Bioremediation (EA)	Quiz 4
Th Oct 26	9) Bioenergy (EA)	
Tu 🎃 🧛	10) Catch up and Review (EA)	Quiz 5 Report 1 due
Th Nov 02	11) Introduction, Environmental Change (JT)	Report 2 assigned
Tu Nov 07	12) Cells and Sensing the Environment (JT)	Quiz 6 Group Project 2 Assigned
Th Nov 09	13) Environmental Physiology I: Osmoregulation (JT)	
Tu Nov 14	14) Environmental Physiology II: Respiration (JT)	Quiz 7 Report Topic Due
Th Nov 16	15) Environmental Physiology III: Circulation (JT)	
Tu Nov 21	16) Environmental Physiology IV: Thermoregulation (JT)	Quiz 8 Group Project 2 Due
Th Nov 23	<i>No class – Thanksgiving Holiday</i>	
Tu Nov 28	17) Environmental Physiology continued (JT)	
Th Nov 30	18) Environmental Physiology continued (JT)	Quiz 9
Tu Dec 05	19) Animal Architecture (JT)	
Th Dec 07	20) Biomimicry for a healthy planet (JT)	Quiz 10 Report 2 Due

Class website: <http://canvas.ucsd.edu/50374> (syllabus, lectures, assigned papers, assignments, etc.)

Recommended textbook (not required): "Campbell Biology" (8th ed. 2008 or 9th ed. 2010 or 10th ed. 2013)

CONTACT INFORMATION

Professor Eric Allen

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Professor Jennifer Taylor

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<u>TA</u>	<u>email</u>	<u>Office Hours</u>
Evan Tjeerdema	etjeerdema@ucsd.edu	TBD
Bryan Delgado	b1delgad@ucsd.edu	TBD

Note: Please email your instructors and TA's any time you have questions and include "ESYS 101" in the subject line. We will try to respond to all emails within 24 hours, with possibly longer response times during weekends.

Discussion section times and locations:

Section	Time	Location	TA
A01	Mon 9:00 - 9:50 am	HSS 2154 (moves to WLH 2114 on 10/30/23)	Bryan
A02	Mon 10:00 – 10:50 am	HSS 2154 (moves to WLH 2114 on 10/30/23)	Bryan
A03	Fri 3:00 – 3:50 pm	WLH 2209	Evan
A04	Fri 4:00 – 4:50 pm	WLH 2209	Evan

Attendance: This course is offered in-person only. Recordings or podcasts will not be available. Material for quizzes will come directly from lectures, so it is in your best interest to attend each class. Lecture slides will be posted on Canvas prior to lecture. If you are absent for lecture, it is advised that you borrow notes from a classmate to amend the lecture slides. You are not required to attend section, but you will find it beneficial as the TA's will review class material and answer questions about the assignments and suggested readings.

NOTE: Sections will start the week of Monday Oct 2 (week 1)

Grade scale: Your final grade will be based on the total number of points you receive.

100 - 98%	A+	97 - 93%	A	92 - 90%	A-
89 - 87%	B+	86 - 83%	B	82 - 80%	B-
79 - 77%	C+	76 - 73%	C	72 - 70%	C-
		69 - 60%	D		
		<60%	F		

Grading:

There will be ten quizzes, two short reports, and two small group projects.

Quizzes, 10 points each

Reports, 50 points each

Group projects, 25 points each

= 100 points

= 100 points

= 50 points

250 points

Quizzes:

There will be ten quizzes in this course. Quizzes will be available via the course website on Canvas starting at 2:00 PM on the date assigned, and students will have 24 hours to complete each quiz, unless otherwise noted. Important: once the quiz has been started, students will have 30 minutes to complete it. Quizzes will cover material taken directly from the prior week's lectures and will not be cumulative. Quizzes are closed book/closed notes and will consist of multiple-choice and short answer questions.

Reports:

You will be assigned two reports. For each report, you will be given a topic, perform literature searches on that topic, and write a short report consisting of no more than 3 pages (with 1.5 spacing). Detailed instructions for each report will be posted on the course web site. You will be required to submit your topic and references for approval ahead of time. Detailed instructions and a rubric will be provided. Reports are due by midnight on the assigned due date. Please submit a typed electronic copy via Canvas.

Group projects:

You will be assigned two group projects. Groups will consist of 4-5 students within the same TA section, which will be announced via the course website. You are responsible for making the arrangements to meet with your group in order to complete the projects. This can be done either in person or via Zoom or similar online platform. Detailed instructions for each project will be posted on the course web site. Projects are due by midnight on the assigned due date and must be submitted through Canvas.

Useful websites: (journal literature portals)

GoogleScholar: <http://scholar.google.com/>

PubMed: <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?tool=cdl&holding=ucsdlib>

To prepare for the quizzes:

1. Attend the lectures! *Nearly all questions will come directly from the lectures.*
2. Read the related material in the text as needed. Students in this class have a broad range of backgrounds in biology, so some students will need to do more reading in the text than others.
3. Attend section regularly as you will be able to ask questions about the lectures.
4. Do not cheat! *Disciplinary steps will be taken when cheating is discovered. These steps may include failing the quizzes and misconduct reporting. (argh!)*

Based on experience, the students who do best regularly attended lectures and sections and read the textbook (as needed) before attending lecture/sections.

Quiz inquiries:

Regrade requests must be submitted no later than one week after the quiz scores are reported on the course website. Prepare a written explanation, with documentation if possible (i.e. with references to text &/or lecture notes), and deliver the query to your TA. If we find that a question has more than one answer or should be discarded after the quizzes have been graded, all of the quizzes will be re-graded using the new answer key.

A MESSAGE FROM OUR FRIENDS AT THE UCSD ACADEMIC INTEGRITY OFFICE:*Statement of Academic Integrity:**

Students are expected to do their own work, as outlined in the UCSD Policy on Integrity of Scholarship <<http://www-senate.ucsd.edu/manual/appendices/app2.htm>>. Academic misconduct will not be tolerated. This includes, but is not limited to, cheating, plagiarism, and collusion. Any student who engages in suspicious conduct, e.g. cell phone activity during exams, will be confronted and subjected to the disciplinary process. Cheaters will receive a failing grade on the exam, and/or in the course. They may also be suspended from UCSD pursuant to University guidelines. (Translation: just don't do it!)