

**Bio 125: Principles III – Ecology and Evolution**  
**Spring 2021**  
Department of Biology, CSU Dominguez Hills

Class times & location: W 1 – 3:45 pm (online)

Instructor: Dr. Sonal Singhal

Office hours: MW 4:30 – 5:30p

Office:

Phone:

E-mail:

### Course Description

This class will apply some of the ideas you are covering in Bio 124 – ideas like global change, natural selection, population genetics – to hands-on experiments (even if we are online). In doing so, I hope we will together achieve the three big goals of this class. The first is for you all to be scientists and do your own science experiments. We will increase your comfort with the scientific method, or the process by which we ask and answer questions about the world. The second is to collaborate with your classmates on science experiments. The third is to have fun.

From the course catalog: Fossils and stratigraphy, population genetics and ecology, field measurements in ecology and field trips to local ecosystems. 1 unit.

*Prerequisites:* Bio 122, Bio 123

*Corequisite:* Bio 124

### Student Learning Objectives

Upon successful completion of this course, students will be able to:

- Formulate scientific questions
- Design experiments to test questions
- Make predictions based on their experiments
- Analyze the data that result from these experiments.
- Communicate their data effectively, both through oral and written communication
- Collaborate with their peers to do science

### Materials

*Required Material:* None!

### Classroom Policies

Online learning is hard. I get it. I will try to bring my best energy and be as organized as I can to help make it easier. On your end, come to class or participate on the online groups and turn on video (if you can!) when you come to class.

I expect you to be able to attend class the entire time of our Zoom meeting. We will not necessarily be on video the entire time – you will be busy doing experiments and working on your own some of the time, but I expect you will be near a computer, tablet or phone until our Zoom meeting ends.

Grading	
Quizzes (best 10 out of 12)	100 points
Assignments	400 points
Group Presentation	50 points
Teamwork reflection	25 points
Pre- and post-surveys	25 points
Total:	600 points

*Quizzes:* You will have 12 quizzes (given on Blackboard) to encourage you to read and watch any lab materials before class. You will be able to take each quiz twice, and I will average your grades on the two attempts. I will drop your **two** lowest quiz scores. Each quiz will be worth 10 points.

*Assignments:* Lab assignments will be assigned in class, and you will have often have multiple weeks to work on them. All assignments will be given in groups, completed in groups, and graded in groups. Given this class is just 1 unit, my goal is to give you enough time to work on assignments in class. That way, you should not have to spend too much time outside of class on group work, which I know can be especially hard during online-learning.

*Group presentation:* Every group will have to pick one lab to present on in class via a short presentation.

*Extra credit:* There will be one extra credit assignment, due at the end of the semester, worth 30 points (or 5% of your grade).

Grades will be assigned on a standard scale:

94 – 100: A	80 - 82: B-	67 - 69: D+
90 - 93: A-	77 - 79: C+	60 - 66: D
87 - 89: B+	73 - 76: C	0 - 59: F
83 - 86: B	70 - 72: C-	

#### When stuff goes wrong

- If my Internet cuts out during Zoom class, wait for me to return for at least 5 minutes. If I don't come back, I will email you an update.
- If your Internet cuts out during class, I will miss you while you are gone, but I get it – it happens! Just come back to class if you can.
- If the device you use for schoolwork breaks, let me know! There are resources on campus to help you get new ones.
- If life gets complicated and you can't turn in an assignment in time, let me know. I am here to help you and there are things we can do to make sure you finish the class successfully and with less stress.

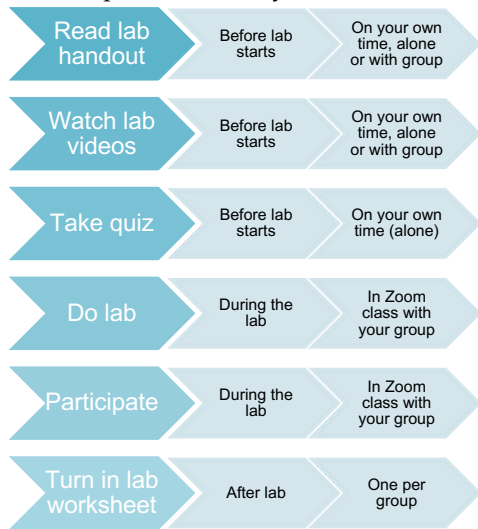
#### Recommendations for Success

To be successful in class, I recommend:

- Reviewing the lab materials before and after the quiz
- Come to class & participate once you show up
- Exchange contact information with your group and set up a group text or chat
- Be kind and friendly with your group members
- Attend office hours / tutoring
- Have fun. Seriously. It is so much easier to learn if you like it.

### How Each Module Works

Each lab is set up the same way, because it makes it easier for me and you.



### Tentative Schedule

Week	Date	Classroom Activity	Assignments Due
1	1/27/21	Lab 1: How to ask a scientific question	
2	2/3/21	Lab 1: How to ask a scientific question	<ul style="list-style-type: none"> <li>Lab 1 part 1 worksheet</li> <li>Presurvey</li> <li>Quiz 1 on Lab 1</li> </ul>
3	2/10/21	Lab 2: Natural Selection	<ul style="list-style-type: none"> <li>Lab 1 part 2 worksheet</li> <li>Quiz 2 on Lab 2</li> </ul>
4	2/17/21	Lab 3: Abiotic stress and Organisms	Quiz 3 on Lab 3
5	2/24/21	Lab 3: Abiotic stress and Organisms	Quiz 4 on Lab 3
6	3/3/21	Lab 3: Abiotic stress and Organisms	Quiz 5 on Lab 3
7	3/10/21	Lab 4: Population Genetics	<ul style="list-style-type: none"> <li>Lab 3 worksheet</li> <li>Quiz 6 on Lab 4</li> </ul>
8	3/17/21	Lab 4: Population Genetics	<ul style="list-style-type: none"> <li>Quiz 7 on Lab 4</li> </ul>
9	3/24/21	Lab 5: Mosquitoes and Global Change	<ul style="list-style-type: none"> <li>Lab 4 worksheet</li> <li>Quiz 8 on Lab 5</li> </ul>
10	3/31/21	SPRING BREAK - NO CLASS!	
11	4/7/21	Lab 5: Mosquitoes and Global Change	Quiz 9 on Lab 5
12	4/14/21	Lab 5: Mosquitoes and Global Change	Quiz 10 on Lab 5
13	4/21/21	Prepare group presentations	<ul style="list-style-type: none"> <li>Lab 5 worksheet</li> <li>Teamwork reflection</li> </ul>
14	4/28/21	Group presentations	
15	5/5/21	Lab 2: Natural Selection	Quiz 11 on Lab 2
16	5/12/21	Lab 2: Natural Selection	Quiz 12 on Lab 2
	5/18/21	Post-survey due (not optional) Extra credit assignment due (optional) Lab 2 worksheet	

### University Policies

*Academic Integrity:* This course will be conducted in accordance with the University Policy on Academic Integrity (p.14 University Catalog). Any student caught cheating or plagiarizing will receive an F (0 points) on the assignment and will be penalized according to University regulations. Cheating or plagiarism is subject to discipline as provided in Title 5, California Code of Regulations. Plagiarism is a very serious offense. See the University Catalog under Academic Integrity for further information.

*Exams:* no cellphone use of any kind is allowed during exams. Cellphones will be turned off and secured in your bookbag, which will be placed on the floor for the duration of the exam.

*Plagiarism:* it is imperative that you cite all your sources on assignments. Academic misconduct of any kind, including cheating on exams and plagiarism, will result in a grade of F for the course, and possibly other sanctions. Once you have completed this course, do not share assignments etc. with students in subsequent semesters. If anyone turns in your assignment in a future semester, you will be held accountable and face sanctions.

*Disruptive Students:* Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. The instructor may require a student responsible for disruptive behavior to leave class pending discussion and resolution of the problem and may report a disruptive student to the Student Affairs Office (WH A-410, 310-243-3784) for disciplinary action.

*CSUDH adheres to the Americans with Disabilities Act* with respect to providing reasonable accommodations for students with temporary and permanent disabilities. To receive accommodations, students with disabilities must register with Students disAbility Resource Center. For more information, please contact their office in Welch Hall D-180 at (310) 243-3660 (voice) or (310) 243-2028 (TDD).

*Computer/Information Literacy Expectations for Students enrolled in this class:* Students in this class are expected to:

- Use assigned Toromail account or other university approved email.
- Have ability to navigate and use Blackboard.
- Have basic information and computer literacy in one of the computer formats (Windows, Macintosh, or GNU/Linux).
- Upload files in all of the computer formats (.doc, .docx, .jpeg, .ppt, .pdg, .xps).
- Access and choose appropriate library and other scholarly sources of information.
- Search for and find relevant scholarly information effectively.
- Be able to paraphrase concepts without plagiarizing.
- Maintain the minimum computer Hardware requirements\*
- Maintain the minimum computer Software requirements\*

\*Please visit <http://www.csudh.edu/academic-technology/instructional-technologyresources/online-courses-tech/> for the most up-to-date Hardware & Software computer requirements