BILD 3: Organismic and Evolutionary Biology
Fall 2020

Dr Carolee Caffrey   cacaffrey@ucsd.edu   Lecture: MWF 12-12:50, 1-1:50   https://ucsd.zoom.us/j/2429831670
Office hours (on Zoom): Mon 2:45-3:45 or by appt.

Discussion sections: Fri 2-2:50   Mon 4-4:50, 5-5:50, 6-6:50, 7-7:50
                           Tues 2-2:50, 3-3:50, 4-4:50   Thurs 10-10:50, 11-11:50

Text: Biology 2e, Print ISBN 978-1-947172-51-7, Digital ISBN 978-1-947172-52-4. Updated 1/18/20.
https://openstax.org/details/books/biology-2e

Course objectives: To impart to students an understanding of: 1) the process of evolution by natural selection, 2) biodiversity, 3) the biotic and abiotic processes and mechanisms of terrestrial and aquatic ecosystems.
To engage students in seeking answers to questions through the process of science.
To demonstrate the connection between biology and human lives and futures, and to empower students to think critically about current biological issues.
To instill appreciation, awe, and respect for natural systems, and a sense of responsibility therefor.

Performance assessment and grades: Student mastery of course material will be assessed through open-notes multiple choice exams Discussion-section exercises. Grades will be based on the total points earned (of all points available) over the quarter and will be at least as low as a straight scale, e.g., 80% of points for a B and 90% for an A. Grades for all students, including those intending to graduate, will be determined in exactly the same manner.

Lecture
I'll lecture MWF from 12-12:50 and 1-1:50, on Zoom.
I'll record the lectures and post the links later in the day (when Zoom makes the recordings available).
You will do better in this course if you attend lectures in real time: you'll know as soon as I announce any issues upon which you need to act, and you can ask questions about the material I'm covering. Also, it makes it more like you're actually in class, and I think that'll make your taking of notes more efficient and useful. As your exams will be "open-book" (see below), excellent notes will increase your chances of acing this class. -> So, too, will watching the video posted under Student Resources regarding succeeding in remote classes.

This syllabus is required reading.
I'll be showing PowerPoint slides in class and will post these on Canvas before each lecture.
For all units of lecture material, I will post Lecture Outlines that will outline the subjects I'll talk about, with numbers that track numbered PPt slides. They will totally enhance your ability to make the most out of each lecture and take excellent notes!

Text
We're using a free text from OpenStax, and this is my first semester using it. I will be reading it as we go, and I'll post guidelines regarding relevant sections and what - and what not - to worry about. If it doesn't cover a subject and I suggest something else, the reading guidelines will advise there, too.

I'll use the phrase "follow me" to indicate that you should use my lectures or outlines, or Discussion exercises, as guides to details and terms you are required to know. I'll point out any special instructions with regard to reading material, and end-of-chapter questions that you should be able to answer for an exam.

Discussion Section
Each week you'll have activities to complete, and your IAs are there to educate, instruct, clarify, help, and encourage. Get to know yours! As with lecture, it will totally help your performance in the class if attend in real time. One Discussion section/week will be recorded and posted on our Canvas page by Tuesday afternoons.
For almost all Discussion assignments, they are due by the beginning of your next section (the one in which you are enrolled). Assignments submitted late will lose 1 point (same day, but late), 2 pts for each class day missed, and -3 over a weekend. Assignments will not be accepted after one week late.

Exams
As above, exams are open-book, and the "book" should be your own notes.
In addition, I'm going to give you the ability to take Exams 1 and 2 twice. The first time you take it will be during class time. After that attempt, you will see your answers and whether they are correct or not; you will not see the correct answers for missed questions. You will be able to take the exam again any time in the following two days. On your second attempt, about half of the questions from the first time will repeat. Both attempts will be timed and you won't have a lot of it to be looking around for question/answer material. You should prepare for exams as if they were to be in-person, no notes allowed, exams. I'll keep the highest of your two scores for each exam.
The final will be cumulative.
I'll talk about exam format and content as exam dates approach.

Communication
The course Canvas site will be used to post everything: Zoom links, PPt presentations, lecture outlines, Discussion-related exercises, reading guidelines, exams, and scores. I'll be communicating weekly (every Thursday) through e-mail to remind you of the week's events, including exams and Discussion-related due dates, and I'll email during the week with any details or issues that come up.

I have an office hour on Mondays (2:45-3:45), on Zoom, where you can ask about course mechanics and class material. Your IA will have an office hour/week, too. If you email me, **you need to put something meaningful on the subject line** or I'm not going to open your email! **->** Do not just hit reply to an earlier one of mine, unless your email is directly related to it.

Academic Honesty and Integrity
From the Office of Academic Integrity: "According to the UCSD Policy on Integrity of Scholarship, a course instructor has full discretion over the grade in the class and how you will be academically sanctioned for academic misconduct. The academic sanction can range from a failing grade on the assignment, quiz, or exam in question, to a failing grade in the class. That grade will remain on your transcript and calculated into your GPA, even if you retake the class."

My policy: zero-tolerance toward cheating, of any kind. Plagiarism - using someone else's work and submitting it as your own – is cheating. All of your submitted work will pass through Unicheck (Canvas' anti-plagiarism software), and we'll know if you have copied and pasted: Don't do it! If you are caught cheating in any way in this course, you will receive zero points for the exam or assignment in question and your actions will be reported to the Office of Academic Integrity. A second time? I will Fail you. This is absolute.

Special Accommodations
For those of you associated with the Office for Students with Disabilities, I'm happy to work with you and them to provide whatever you need. Get me the form asap and let's talk about how to make sure all is well.

Zoom Etiquette for Lecture and especially Discussion Sections
Please have your name, as enrolled, up, and your camera on regularly so we can see you!
Please mute your mic when you are not speaking.
Use the chat to engage with other participants in a supportive and courteous way.
If you would like to speak, unmute yourself.
Practice respect, humility, and honest listening.
Help create a BILD-3 safe space by having patience and compassion for others with views different than yours.
If you want, temporarily add your pronoun to your Zoom display name as you begin a Zoom session: Click on "Participants" at the bottom of the screen, mouse over your name and click on More, Rename.
If you would like to permanently change your display name, you can do this before entering a Zoom session: Click on your profile image, Settings, My Profile.

One more course policy: go greener!
As you learn more and more about our global and local pollution and environmental-abuse issues, you will come to understand the importance of changing the behavior of lots of people, and so it's good to start with yourself. Think about ways to use less electricity and gasoline, and water, and then actually do those things (e.g., take shorter showers, combine similarly-located errands into a single trip, use fans and not the AC!). Reduce meat consumption and your use of toxic products. Buy less stuff, especially it-will-be-here-forever plastics. Put your groceries back into the basket and transfer them to reusable bags in your car (and leave the plastic bags at Von's). Live by the five Rs: Refuse, Repair, Reuse, Recycle, and Regift!
And vote!

Lect		Lecture Topic	Disc	Discussion Section	
Week			Week	Topic	pts
0	F 10/2	Intro. Course mechanics. Genetic diversity.			
1	M 10/5	Evolution 1: Darwin.	1	Intro	12
	W 10/7	Evo by Natural selection: The process.		Genetic diversity	15
	F 10/9	Evolution 2: Modes of selection.			
2	M 10/12	Sexual selection.	2	Process of Science	31
	W 10/14	Evo by Genetic Drift. Hardy Weinberg Equilibrium.			
	F 10/16	Evolution 3: Patterns of evo descent.			
3	M 10/19	Reproductive Isolating Mechanisms.	3	HW Equilibrium	37
	W 10/21	Evolution 4: Speciation.			
	F 10/23	Pace of evo.			
4	M 10/26	Catch up!	4	Purple Mountains	25
	W 10/28	**Exam 1**			
	F 10/30	Biodiversity: Protists			
5	M 11/2	Biodiversity: Plants.	5	Biodiversity 1	40
	W 11/4	Cont. Fungi.			
	F 11/6	Biodiversity: Sponges. Cnidarians. Flatworms.			
6	M 11/9	Biodiversity: Roundworms. Molluscs. Annelids.	6	Biodiversity 2	40
	W 11/11	**no class**			
	F 11/13	Biodiversity: Arthropods. Echinoderms.			
7	M 11/16	Cont.	7	Biodiversity 3	40
	W 11/18	Biodiversity: Chordates.			
	F 11/20	Cont.			
8	M 11/23	**Exam 2**	8	Catch up!	
	W 11/25	Life History Strategies.			
	F 11/27	**no class**			
9	M 11/30	Ecosystems. Community Ecology.	9	Biomagnification	35
	W 12/2	Energy flow.			
	F 12/4	Biogeochemical Cycles.			
10	M 12/7	Cont.	10	Biogeochem cycles	37
	W 12/9	Population Ecology.		Energy Flow	
	F 12/11	Human population size considerations.			
	M 12/14 Th 12/17	Final Exam 11:30-2:29 (1:00) Final Exam 11:30-2:29 (12:00)			

Points available

2 Lecture Exams	225	
Cumulative Final	190	
Discussion Sxn assignments	312	
Total	727**	

**You cannot pass this class with fewer than 364 points