

BILD 3
ORGANISMIC AND EVOLUTIONARY BIOLOGY

COURSE OUTLINE

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Office Hours:
Tuesdays, 3-4 pm (or by appointment)
email correspondence encouraged,
please put BILD 3 in the subject line

This course deals with the living world at the levels of whole organisms, populations, communities, and ecosystems. It is an introduction to the history and diversity of life on earth, and the fields of evolution, systematics, ecology and behavior. A major focus of the course will be on the evolutionary, ecological, and historical processes that have shaped life on earth. Knowledge of these processes is essential for understanding biology in general, increasingly useful in modern health sciences, and provides the tools for management of the earth's biota into the future.

PREREQUISITES: The recommended prerequisite for the course is BILD 1 or a good high school course in biology. The course assumes that you know Mendelian genetics, mitosis and meiosis, and the basics of molecular biology — the transfer of genetic information from DNA to RNA and then to proteins. If you don't have a command of these topics, you will be at a disadvantage unless you do some extra reading in Units 1 and 3 of the text.

LECTURES: MWF 10:00 to 10:50, 108 Peterson Hall

COURSE TEXT: Biology (Ninth Edition), by Campbell and Reece, Benjamin-Cummings, 2011. We will cover material from units Four, Five, Seven (Chapt. 51) and Eight of the text.

ENROLLMENT: If you drop the class, please do so using WebReg right away so that somebody can take your place.

WEB SITE: Enrolled and waitlisted students should have access to the course website at <https://ted.ucsd.edu> . What is on the web site? The slides for each class, arranged by lecture, will be available **by 10:00 pm the evening before each lecture**. These files will be in black and white .pdf format with three or six slides per page and can be printed out to help you follow the lecture while you take notes on them or on another page. I cannot upload the powerpoint files directly as they are too large. If you are having trouble downloading a file it is usually because it is too large for your connection. Either wait it out or download when you are on campus with a better connection. Before exams, sample questions will be posted on the website. Your grades for quizzes and exams will all be posted on the website. Announcements related to the course will be posted in the header of site homepage. **Check the site often for announcements and other changes!** Finally, a discussion board that allows you to post questions and view answers is available –the TAs will monitor the board daily, but if you want to ask Dr. Kohn a question (**this is encouraged**) please do so by emailing him directly (jkohn@ucsd.edu) with “BILD 3” in the

subject line of your email. Dr. Kohn will not monitor the discussion board on Ted.

QUIZZES: Four short quizzes will be given in discussion sections. These quizzes will cover material from the previous week and will consist of multiple choice and short answer questions. These quizzes serve

two purposes: (1) to help you to keep up with the course material, and (2) give you a sense of your progress and understanding of the material before the big exams. There will be no make-up quizzes, but your lowest quiz score will be dropped, so missing one quiz is not a huge problem.

MIDTERM: There will be two midterms, held during the lecture time on Oct. 19th and Nov. 16th.

FINAL EXAM: The final exam is scheduled for **Friday Dec 14th 8:00-11:00am in Peterson 108**. Dr. Kohn will keep you posted if there are any changes.

EXAM FORMAT: Midterms and final exams will consist of multiple choice, short essay, short answer, and quantitative exercises (simple calculations or graphs) designed to test your ability to synthesize information presented in the lectures and readings. The midterm exams will be based on material up to the lecture preceding the exam. The final exam will be cumulative with somewhat greater emphasis on post 2nd midterm material. All exams will be closed book and closed-notes; all personal materials must be stowed under your seat while exams are in progress. **No calculators, no ipods, nothing but a writing implement (a pen if you ever want to be considered for a regrade (see regrade policy below)) will be allowed.**

GRADES:

Clicker questions:	20 points
Section quizzes (20pts each with lowest of five scores dropped):	80 points
Midterms (2X100pts each)	200 points
Final	200 points

be determined by the professor at the end of the course.

REGRADES: If a grading error has been made on your exam, you may submit a regrade petition to the professor within one week of return of the exam. *A regrade petition must clearly and concisely state the reason(s) why you think your answer is deserving of additional credit. Regrade requests will not be processed without a written petition.* No regrades will be given for exams written in pencil or non-permanent ink. Students who submit exams for regrading do so with the knowledge that we may (1) regrade the entire exam (and your score could go up or down) and (2) compare the submitted regrade to photocopies of the original exam.

MISSED EXAMS: *There are no make-up exams and missed exams will normally be considered zeroes.* If you know in advance that you cannot be present for an exam, you must contact Dr. Kohn at least one week before the exam and make arrangements. If you do not inform Dr. Kohn and miss a midterm or final exam, then you will be required to provide official documentation of an unavoidable emergency (e.g., serious illness, etc.) Without documentation, you will receive a

zero for that exam. For a missed exam with valid documentation, the professor will determine the method of makeup.

CHEATING: Students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity (<http://www-senate.ucsd.edu/manual/Appendices/app2.htm>). Cheating will not be tolerated, and we will fail any student caught engaging in academic dishonesty. Because both exams are required for satisfactory completion of this course, any student caught cheating on an exam will receive a failing grade for the course. He or she may also be suspended from UCSD.

SECTIONS: *THERE WILL BE NO SECTIONS UNTIL THE WEEK STARTING MONDAY OCT. 8TH* Students should sign up for sections online at <https://sections.ucsd.edu/> . Section registration will begin at 5pm FRIDAY SEPT. 28th. If you are enrolled you will be able to sign up. If you are waitlisted, you will be able to provide an ordered list of preferences. Please do so. Section registration will end at 5pm FRIDAY OCT. 12th. Sections are designed to give you a chance to reinforce material introduced in lecture. *Four 10-minute quizzes will be given during the quarter in the section meetings.* These quizzes are designed to be fairly easy, provided you have been keeping up with the lecture material. But remember that these quizzes count for a total of 12% of your grade, so do not treat them too lightly. The rest of each section will be devoted to questions and answers dealing with material in the readings or the lectures. There is more material in the text than will be covered in the lectures, but be sure to read the material paying special attention to topics covered in lecture. You must take your quiz in your assigned section or it will not count. On weeks when there isn't a quiz, section will be devoted to discussions of material that will enhance your understanding of the course. If you have questions on lecture material, section is an excellent time to ask them. Before the Midterm and Final Exam, TAs will review material and provide practice questions.

ADVICE: *THERE IS NO SUBSTITUTE FOR ATTENDING LECTURES!* Because the lectures in this course build on material from previous lectures you will be seriously hurt by regularly missing lectures. Some absences may be unavoidable, but it will be up to the student to find a way (help from another student, etc.) to retrieve missed information. Reading the textbook helps, but the text is meant to supplement and not replace the lectures. **Viewing lecture slides posted on the website should not be treated as a replacement for attending the lectures and taking your own careful lecture notes.** Many students have tried this and paid for it in lower than expected test scores. Learning to listen to a lecture and record your own notes, is a valuable skill. Take extensive and complete notes. You will find that you will retain much more information if you listen and then translate the information into your own notes. In fact, you will find it much easier and quicker to understand the subject matter by actively listening to a lecture and taking notes than by reading the text or looking at lecture .pdf's by yourself. If you attend lectures and take notes, the next step to success is to go over your notes the same day as the lecture. Rereading your notes the same day takes advantage of the fact that the material is still fresh. You will find that you can recall much more information than you actually recorded in your notes during class. If you recall additional information, add it to your notes. If you have questions, have them clarified immediately with your TA or instructor. This is not a very difficult course but the amount of material presented can seem overwhelming if you don't keep up on a regular basis. I will make an effort to adjust the lectures to your pace. However, because

the lectures build on each other, you must put a constant and steady amount of effort into the lectures. If you fall behind, the interaction between the different lectures will make it difficult for you to recover. If you keep pace, this course should be rewarding.

SECTION TIMETABLE:

Week of:

- Oct. 1 **NO SECTION MEETINGS**
- Oct. 8 Quiz on Darwin and the history of life on earth
- Oct. 15 Quiz on the origin and history of life, and Evolution. Review for exam
- Oct. 22 Discuss exam questions and lecture material.
- Oct. 29 Quiz lecture material since the first exam
- Nov. 5 Quiz Discussion of diversity, review for exam.
- Nov. 12 Veteran’s day week. NO SECTIONS
- Nov. 19 Discussion of exam questions and lecture material
- Nov. 26 Discussion of lecture material
- Dec. 3 Quiz on lecture material since the 2nd Exam, Final REVIEW

TEACHING ASSISTANTS

TA	Contact	Section time, room	Office hours time, place
Ngo, Davis Tat Thin	d8ngo@ucsd.edu	Tuesday 6:00 CENTR 205	Monday 7:00 Outback Climbing Center (Canyonview Aquatic Center)
Richardson, Kristen Mundie	k3richar@ucsd.edu	Wednesday 12:00 PCYNH 120	Wednesday noon Mandeville Coffee Cart
Sakhamuru, Srinandini	ssakhamu@ucsd.edu	Wednesday 1:00 PCYNH 120	Thursday 3:30 Tapioca Express
Seto, Natalie	nseto@ucsd.edu	Monday 2:00 CSB 004	
Tran, Quynh- Nhu Ngoc	qnt001@ucsd.edu	Wednesday 4:00 WLH 2115	Friday 3:00 Town Square
Calvillo, Nicolas Elias	ncalvill@ucsd.edu	Tuesday 7:00 CENTR 205	
Ryan Palhidai	rpalhida@ucsd.edu	Monday 3:00 CSB 004	
Lam, Michael Siufung	sflam@ucsd.edu	Monday 1:00 CSB 004	
Miyamoto, Jaclyn Kuniko	jmiyamot@ucsd.edu	Monday 4:00 CSB 004	
Ruiz, Maria	m5ruiz@ucsd.edu	Wednesday 5:00 WLH 2115	Monday 11:00 Mandeville Coffee Cart
To, Andrew Thanh-Tam	atto@ucsd.edu	Monday 5:00 CSB 004	Wednesday 1:00 Hi Thai Lounge

LECTURE SCHEDULE AND TEXT READINGS

Number/Date	Topic	Reading
Sept. 28	Introduction, Darwin	Ch. 22
Oct. 1	Darwin, Evolution by Natural Selection	Ch. 22
Oct. 3	The History of Life on Earth	Ch. 25
Oct. 5	The History of Life on Earth	Ch. 25
Oct. 8	Evolution I: Evidence	Ch. 22
Oct. 10	Evolution II: Mechanisms	Ch. 23
Oct. 12	Evolution III: Speciation	Ch. 24
Oct. 15	Phylogeny and Systematics I	Ch. 26
Oct. 17	Phylogeny and Systematics I	Ch. 26
Oct. 19	MIDTERM I	
Oct. 22	Prokaryotes	Ch. 27
Oct. 24	Eukaryotic life	Ch. 28
Oct. 26	Plant diversity	Ch. 29, 30
Oct. 29	Fungi and Animal Diversity I	Ch. 31, 32
Oct. 31	Animal Diversity II	Ch. 32, 33, 34
Nov. 2	Human Evolution	Ch. 34
Nov. 5	Population ecology	Ch. 53
Nov. 7	Population ecology	Ch. 53
Nov. 9	Community ecology	Ch. 54
Nov. 12	Veterans day (no class)	
Nov. 14	Community ecology	Ch. 54
Nov. 16	MIDTERM II	
Nov. 19	Behavioral Ecology	Ch. 51
Nov. 21	Sexual Selection	Ch. 51
Nov. 23	Thanksgiving Holiday (no class)	
Nov. 26	Ecosystems	Ch. 55
Nov. 28	Global Change	Ch. 56
Nov. 30	Conservation Science	Ch. 56
Dec. 3	TBA (or catch up since I'll likely be behind)	
Dec. 5	TBA (or catch up since I'll likely be behind)	
Dec. 7	REVIEW and/or More catch-up --	
Dec. 14	FINAL EXAM 8:00 – 11:00 Peterson 108	

Clicker Instructions

Clicker grading is dependent entirely on participation, not whether you answer correctly.

If you answer	you will receive
≥ 80% of clicker questions	20 pts
≥ 50% of clicker questions	10 pts
≥ 20% of clicker questions	5 pts

It is your responsibility to have your clicker with you at lecture and to make sure it is working properly. There will be no make-up opportunities for clicker questions, for any reason, nor can you get clicker credit for handing in questions on paper, etc.

Batteries

Clickers require 3 AAA batteries. A flashing red “low battery” light lets you know when you need to change batteries. There are instructions on the back of the clicker on how to change batteries. Always change all three or bad things will happen.

Register your clicker

Go to: <http://ted.ucsd.edu>. Click on “Register Your i>Clicker”. Follow the instructions. The ID number for your clicker is on the back underneath the bar code. Note, the i>clicker IDs may have zeros, but will not include the letter “O”.

You will not see your clicker points on Ted until you have registered your i>clicker online. In order to ensure your clicker is working properly, please register as soon as possible. Every student in this course must have their own i>clicker to receive clicker credit. You will not receive any clicker credit until you correctly register your i>clicker online. The deadline to register your clicker is before lecture on January 19.

Turn it on

Turn your clicker on with the bottom button.

Answering questions

I will ask questions, and you will respond by pushing buttons A – E. Please wait until I start the voting before you respond. There will be a timer on the screen when the voting has begun. When your answer has been received, you will see a check mark on screen. While the timer is going, you can change your answer as many times as you want. Just press a different button.

You get credit for answering the question, regardless if your answer was correct or incorrect.

Like all technologies, clickers sometimes malfunction. This is why I give full clicker credit if you answer 80% of the questions or more. I do not adjust scores in other ways. Do not use the “80% rule” as an opportunity to skip class. Use this only as a safeguard for clicker malfunctions.

Lost clickers

If you lose your clicker mid-quarter and you use a different clicker, you need to change your registration on-line AND you need to email me the following (before the next lecture):

- a) your lecture time
- c) UCSD email (username / Ted user ID)
- d) your clicker ID

Clicker Troubleshooting

Clicker points will not count toward your grade until the second Monday lecture. Up until this time, however, I will be asking clicker questions and collecting and uploading data to Ted so you can check to see if you are getting the clicker points you deserve. (They will be erased before I tally the final scores.) On Ted the clicker point columns are labeled like this: “1/7(2)”. That means on 1/7 there were 2 possible points. If you answered both questions, and your score is anything other than a 2, there is a problem.

Some clickers are not functional – this is your time to find that out. I do not adjust scores for malfunctioning clickers. **It is your responsibility to use this these 1st two weeks, when the points do not count, to learn how to use your clicker and to ensure that your clicker is working properly.**

If you have problems, go through the troubleshooting guide below. Starting October 8 (week 3), the clicker points will count, and I will assume all problems have been sorted out.

TROUBLESHOOTING

If you are not getting the points you deserve:

1. Check your registration. Make sure the numbers are correct.

2. Make sure you wait until I start the question before you answer - you should see the timer going.

3. Make sure you answer BEFORE time has run out. No answer is accepted after the time has ended.

4. Every student in this class needs their own clicker – if you are sharing with another student one of you will not get any points.

5. Are your batteries are good? (See the back of the i>clicker for instructions.)

6. If you have done everything correctly, please come to my office hours. We can check your clicker there. If your clicker is malfunctioning the bookstore will exchange it.

7. It is your responsibility to make sure you are getting the points you deserve. If there is a problem, you need to see me right away so we can resolve the problem for future lectures. I will not give clicker points retroactively.