# **BILD 3: Organismic and Evolutionary Biology**

Summer Session 1, 2016 11:00-12:20 M,T,W,Th Pepper Canyon Hall, Rm. 109

### **Contacts**

**Instructor:** "Mr." Levi Lewis, M.S. (<u>Islewis@ucsd.edu</u>) Scripps Institution of Oceanography, Hubbs Hall 3455 Office hour: Monday, 13:00-14:00 (or by appointment)

### **Instructional Assistants (IA):**

instructional Assistant	S (1A):				
Meeting/Day	Time	Location	IA	Email	
Discussion1/M	4-550	Center Hall 201	Kevin Vega	kvega@ucsd.edu	
Discussion2/T	1-250	Center Hall 207	Tzu-han "Humphrey" Lin	tzl007@ucsd.edu	
Discussion3/W	3-450	Center Hall 201	Kevin Vega	kvega@ucsd.edu	
Discussion4/TH	2-350	Center Hall 201	Anna Butcher	abutcher@ucsd.edu	

#### **Ouestions:**

Contact your IA via email for general inquiries about the course and put "BILD 3" in the subject line. They will try to respond to emails within 24 hrs (not overnight), but will not answer individual questions about course content (e.g., lecture materials, exam questions) via email. To discuss course content, please attend lectures, discussion sections, IA and professor office hours, and speak with your classmates. You are encouraged to ask questions during lecture and discussion!

**Please be judicious in emailing Mr. Lewis.** I will not respond to emails that could easily be handled by your IA. That said, if your IA is unable to help, I am here for you and will respond to emails with 24 h (not overnight). The best way to contact me is to come to my office hours. I love meeting with and encouraging students, so I highly encourage you to seek me out and make a personal connection (good strategy for college, in general).

**Description:** BILD 3 is an introduction to the fields within biology known as ecology and evolution. Ecology is the study of the relationships between living organisms and their environment. To best understand why there are so many different kinds of living things and their myriad of complex interactions, we will study evolution and evolutionary processes. We will also focus on organismal diversity, conservation, and the importance of a general understanding of these topics within biology so as to be better stewards of the earth's living things and habitats. We will discuss human impacts on global climate, species extinctions, and environmental alterations. Last, it's my goal to introduce you to topics I love so you might take a sharper interest in the natural world and have a greater tendency toward becoming a more conservation-minded citizen.

**Textbook:** Campbell Biology, 9th edition or Campbell Biology in Focus. The publisher of Campbell Biology offers various supplemental materials including a CD, a web site called Mastering Biology, and a book of exercises. These supplemental materials may be useful to you, but they are NOT required. Used copies may be available online or at the bookstore. You may also find copies at a website called UCSD.PostYourBook.com. Older versions of Campbell Biology could also be helpful to you. I will use figures from and refer to chapter numbers from the 9th edition. Previous editions are similar, but not identical, and could still be a good resource.

**Lectures:** All material presented in lectures is fair game for the exams. Slides will be posted on ted.ucsd.edu to facilitate review; however much of the context for slides will be provided only in class. You must attend class (1) to learn content and perform well on exams and (2) to get participation points (via iclickers).

**TritonEd:** Lecture notes in PDF form will be available on Ted (<a href="https://tritoned.ucsd.edu">https://tritoned.ucsd.edu</a>) the evening after lecture is given. Instructions on accessing Ted can be found here: <a href="http://acms.ucsd.edu/students/index.html">http://acms.ucsd.edu/students/index.html</a>.

NOTE: Concurrent enrollment (extension) students are not added automatically. Extension students can bring proof of enrollment to the ACMS Help Desk (Applied Physics and Math bldg. 1313, M-F, 8:00-4:30) to obtain Ted access. More information for extension students can be found here: <a href="http://extension.ucsd.edu/student/index.cfm">http://extension.ucsd.edu/student/index.cfm</a>.

**iclickers:** These are required and will be used in class in class; this system allows you you to answer questions I pose in class. It helps me understand if you are understanding, and allows for discussion, connection, and further clarity on topics. Research clearly shows that students do better with some degree of interactive learning.

You will be graded on your in-class participation (using iclickers) for each lecture.

- 1. To receive credit, you need to **register your iclicker** remote using the link on our TritonEd course menu.
- 2. Any iclicker can be used (as long as the remote ID can be read and it can be registered on TritonEd).
- 3. You **cannot share an iclicker remote** with another student enrolled in this class (but you can share with someone who is not in our class if it is registered in your name).
- 4. **Cheating:** any student found to be **clicking in for classmates** (or caught using more than 1 iclicker), or if **someone else clicked for you** when you were not present, will get an **automatic ZERO for ALL clicker points**. This is considered cheating and will be reported to the Academic Integrity Office.

**Discussion sections:** You should have already chosen and registered for a section when you enrolled in this course. <u>Attendance is required</u>, and instruction assistants (IAs) will review the week's subject matter, discuss assigned papers, and administer quizzes. The readings will be posted on TritonEd and **all information in readings is fair game for the exams**. If you need to change sections, please work that out with the IA that you are enrolled with and the IA you want to change to. **It will be up to them to allow changes.** 

### **Exams:**

YOU MUST BRING PHOTO ID TO EXAMS. There is one midterm worth 100 points and a final exam worth 200 points. Only material presented in lecture or in the readings required for Discussion Sections will be covered on the exams. All questions will be multiple choice and a Scantron sheet will be provided for both exams. The midterm will be given in class and contain material for that section of the course up to the lecture preceding the exam. The final exam will be cumulative. Exam scores will be available after grading is complete as will your individual Scantron sheets, but the exams will not be returned. YOU MUST BRING A PHOTO ID TO EXAMS TO RECEIVE CREDIT!

**There are no re-grades or make-up exams, period.** If you miss an exam, you will be required to provide official documentation of an unavoidable emergency (serious illness, etc.). Without such documentation, you will receive no points for that exam. If you miss the midterm <u>AND</u> have valid documentation of a valid excuse, the proportion of your grade that is based on your final exam will be increased to cover the missed midterm. If you miss the final exam <u>AND</u> have valid documentation of a valid excuse, you will receive an incomplete for the course (we will have to discuss an alternative path forward).

# **Grading:**

Your final letter grade will be based on your TOTAL number of points. **If everyone earns enough points that they fall at or above 90%, I have no problem giving everyone an A.** However, that is unlikely. Therefore, if warranted, letter grades will be based on a curve. This means I will make sure that <u>approximately</u> the top 20% of students will receive A grades (even if that means going below 90%); the next 30% of students will receive B grades; the next 40% of students will receive C or D grades, and the final 10% will receive F grades. *Some extra credit may be offered (TBD)*.

Letter	%	Item	Points	Percent
A+	>97	Midterm	100	27.0%
Α	93-96	Final	200	54.1%
A-	90-93		200	34.1/0
B+	87-90	Attendance & Clicker Questions (18 lectures, 15*2)	30	8.1%
В	83-87	Discussions (4 x 5 pts/ea.)	20	5.4%
B-	80-83	Quizes (4 x 5 pts/ea.)	20	5.4%
C+	77-80		370	100%
С	73-77		370	100%
C-	70-73			
D+	67-70			
D	63-67			
D-	60-63			
F	<60			

## **Enrollment & Wait list:**

If you are on the wait list for this class you will be automatically added if space becomes available. If you have any concerns, please contact the Biology Student Affairs Advising Services office at 858-534-0557 or go to their website (http://biology.ucsd.edu/undergrad/advising-services.html). **Enrollment questions:** Administrative, advising, or registration questions should be submitted via the Virtual Advising Center (vac.ucsd.edu). **Problems:** If you have serious medical or personal problems during the quarter, the university does allow medical withdrawals. Contact the Biology Student Affairs Advising Services office at 858-534-0557 or go to their website (http://biology.ucsd.edu/undergrad/advising-services.html).

# **Cheating:**

<u>Do not do it</u>. When caught, cheaters will be handed over to the Academic Integrity Coordinator, which reports directly to the Dean of the student's college. I have done it before, will do it again, and it is tragic for all involved. **Also, please do NOT post my lectures on public websites.** For the Academic Integrity policy at UCSD, see here: http://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2.

## **Schedule:**

#### Lectures

Week	Date	Day	Time	Lecture	Chaps (Campbell)	Notes
1	6/26/2015	Sunday	Hille	Lecture	спарэ (саттросп)	Hotes
1	6/27/2015	Monday	11:00-12:20 1	. History of evolutionary thought, part 1 (Darwir	22, 19	
1	6/28/2015	Tuesday		. History of evolutionary thought, part 2	22, 19	
1	6/29/2015	,		Evidence of evolution	22, 19	
1	6/30/2015	,		. Natural selection	23, 21	
1	7/1/2015	Friday	11.00 12.20	. Hatarar Sciection	25, 21	Drop + Refund and Late Add Deadline
1	7/2/2015	Saturday				Brop : Nerana ana zace naa Beaanne
2	7/3/2015	Sunday				
2	7/4/2015	Monday	ŀ	Ioliday	Holiday	Holiday, no disc (kv)
2	7/5/2015	Tuesday		. The genetics of populations	23, 21	discussion not required
2	7/6/2015	,		. Evolutionary processes and genetic variation	23, 21	discussion not required
2	7/7/2015	,	11:00-12:20 7	, ,	24, 22	discussion not required
2	7/8/2015	Friday			,	Drop + no W, and Grade Option Deadline
2	7/9/2015	Saturday				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
3	7/10/2015	Sunday				
3	7/11/2015		11:00-12:20 8	. History of life on Earth	26, 20	
3	7/12/2015	Tuesday	11:00-12:20 9	. Phylogenetic trees	25, 23	
3	7/13/2015	Wednesday	11:00-12:20 1	0. Human evolution	Papers (TBD)	
3	7/14/2015	Thursday	11:00-12:20 N	MIDTERM	MIDTERM	MIDTERM (same time/location)
3	7/15/2015	Friday				
3	7/16/2015	Saturday				
4	7/17/2015	Sunday				
4	7/18/2015	Monday	11:00-12:20 1	1. Organismal diversity I (bacteria, archaea, prot	29-31, 26	
4	7/19/2015	Tuesday	11:00-12:20 1	2. Organismal diversity II (fungi, invertebrates, v	32-34, 27	
4	7/20/2015	Wednesday	11:00-12:20 1	3. Physical environment, biomes, climate	52, 42	
4	7/21/2015	Thursday	11:00-12:20 1	Population ecology	53-54, 40-41	
4	7/22/2015	Friday				
4	7/23/2015	Saturday				
5	7/24/2015	Sunday				
5	7/25/2015	Monday	11:00-12:20 1	5. Community ecology	55, 42	
5	7/26/2015	Tuesday	11:00-12:20 1	6. Ecosystem ecology, part 1	55, 42	Drop + W deadline
5	7/27/2015	Wednesday	11:00-12:20 1	7. Ecosystem ecology, part 2	56, 43	
5	7/28/2015	Thursday	11:00-12:20 1	8. Conservation biology + Applied Conservation,	n/a	
5	7/29/2015	Friday	11:30-2:30 F	INAL	FINAL	FINAL (11:30-2:30 LOCATION TBA)
5	7/30/2015	Saturday				
6	7/31/2015	Sunday				
6	8/1/2015	Monday				deadline to file incomplete

#### **Discussions** (readings will be uploaded to TritonEd)

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Week	Tasks
Week1	Intro. + survey + review
Week2	Quiz 1 + reading + lecture review
Week3	Quiz 2 + reading + lecture review
Week4	Quiz 3 + reading + miderm/lecture review
Week5	Quiz 4 + reading + lecture review

## **OSD** students:

If you need testing accommodation for this class, please work with the Office for Students with Disabilities (OSD). Students requesting accommodations and services due to a disability for this course need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD), prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. OSD Academic Liaisons also need to receive current AFAs. For more information, contact the OSD at (858) 534.4382 (V); (858) 534-9709 (TTY); osd@ucsd.edu, or <a href="http://osd.ucsd.edu">http://osd.ucsd.edu</a>. You will need to coordinate scheduling of exams with your IA. All of these arrangements should be made within the first week of the quarter.

## **CLICKER INSTRUCTIONS**

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.

#### **Clicker Grading**

You will be graded on your in-class participation using iclickers. I will use these questions to identify confusing topics or create discussion opportunities during each of the 18 lectures. You will receive **2 points** per day that you click-in for all questions, up to a total of 30 points (you can miss up to 3 lectures and still receive full credit).

#### Recommendations

- Bring extra batteries (clickers require 2 AAA batteries)
- Put your name on your clicker
- Cover the ID number on the back with a piece of clear tape to prevent it from rubbing off
- CHECK DAILY TO ENSURE YOU ARE RECEIVING POINTS (points will not be awarded retro-actively for malfunctioning/unregistered clickers). Daily points will be posted on TritonEd the evening after each lecture.

#### Register your clicker!

Register your clicker using the link on our TritonEd page. On the left side of the screen, there is a list, and at the bottom of that list is "Clicker Registration." Click on that and follow the instructions. If you have used an iclicker for a previous class, and registered it through TritonEd, you do <u>not</u> need to register it again.

**NOTE:** The instructions that come with your remote ask you to register your iclicker at ww.iclicker.com. While you are welcome to do this, **it is not necessary**.

### Using your clicker

Turn your clicker on with the bottom button. Set it to the frequency in our room [\_\_\_\_\_\_] I will ask questions, and you will respond by pushing buttons A – E. Please wait until I start the voting before you respond. When your answer has been received, you will see a checkmark at the top of your 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 is correct or incorrect. Like all technologies, clickers sometimes malfunction. This is why I give full clicker credit if you click in to all questions in 15/18 lectures. I do not adjust scores in other ways, so please don't ask.

#### Lost clickers

If you lose your clicker mid-quarter and use a different clicker, you need to change your registration online AND you need to email Levi a) your PID and b) your old/new clicker IDs.

#### **Clicker Troubleshooting**

Some clickers are not functional or some days you may not want to come to lecture, **that is why you receive full credit for only clicking in for 15/18 of the lectures.** It is your responsibility to use this grace period to learn how to use your clicker and make sure that your clicker is working as I do not adjust scores for malfunctioning clickers.

To be clear, if your clicker is not working, I will NOT award points retroactively, so you MUST figure out why it's not working immediately. No exceptions.

If you have problems, go through the troubleshooting guide below.

If you are not getting the points you deserve:

- Be sure you have registered. This means through TritonEd (NOT at www.iclicker.com)
- Make sure your remote is on the correct frequency.
- Make sure you wait until I start the question before you answer you should see the timer going.
- Make sure you answer before time has run out. No answer is accepted after the time has ended
- Every student in this class needs their own clicker if you are sharing with another student one of you will not get any points.
- Are your batteries still good?

If you have done everything correctly, but your clicker is still not working, please see one of the IAs for assistance. They will help you troubleshoot your clicker and check it. If your clicker is malfunctioning, the bookstore will exchange it. We cannot do anything to check your clicker over email. It is your responsibility to make sure you are getting the points you deserve. If there is a problem, you need to solve it or see one of the IAs right away so we can resolve the problem for future lectures.