

BILD 3 – Organismic and Evolutionary Biology

Summer Session II 2018

****Please note that the instructor reserves the right to modify any part of this syllabus****

Meeting Time: 8:00am - 10:50am TuTh

Room: Cognitive Science Building (CSB) 001

Midterm: August 21, 2018, 8:00am, CSB 001

Final Exam: September 8, 8:00am - 10:59am, location TBA

Instructor: Dr. Heather Broccard-Bell

e-mail: hebell@ucsd.edu

Office Hours: Tuesday & Thursday, 11:30am - 12:30pm OR by appointment

Office: H&SS 1145C

Head IA: Brian Lien (e-mail: blien@ucsd.edu)

Section Leaders

IA	E-MAIL	SECTION ID	SECTION TIME	SECTION ROOM
Brian Lien	blien@ucsd.edu	01	MW 3-3:50pm	CENTR 218
Jonathan Hanna	johanna@ucsd.edu	02	TuTh 4-5:50pm	CENTR 218
Brian Lien	blien@ucsd.edu	03	MW 4-4:50pm	CENTR 218

Optional (But Really Strongly Recommended) Textbook – Available on Reserve at the Library

Reece, J. B., Urry, L. A., Cain, M. L., Wasserman, S. A., Minorsky, P. V., & Jackson, R. B. (2017). *Campbell Biology* (11th ed.). Boston: Pearson.

****Suggested supplementary reading for the history of life enthusiast (available for about \$10 on Amazon):**

Dawkins, R. (2004). *The Ancestor's Tale: A Pilgrimage to the Dawn of Evolution*. New York: Houghton Mifflin.

Learning Outcomes

1. Understand and apply the principles of evolution via natural selection to the major groups of life on earth.
2. Describe major evolutionary events and transitions in the history of life and how they affect the diversity, distribution, form, and function of Earth's biota.
3. Summarize the goals of the field of systematics and recognize how to formulate hypotheses of relationships based on inherited traits (morphology, physiology, biochemistry, DNA sequences, etc.).
4. Understand the importance and interconnectedness of the levels and systems of levels of life on this planet, including where we fit in
5. Understand the impact of human activity (both positive and negative) on the life on our interconnected planet
6. Marvel at the spectacular diversity of all the stuff that is alive!

General Note

I use e-mail and Triton Ed to communicate with you. Failure to receive information because you did not check those will not be acceptable.

Assessments

Item	Due Date	Weight
Open Note* Midterm	August 21	30
Section Attendance	Each Discussion Section	10
Section Quizzes / Activities	Each Discussion Section	20
Open Note* Cumulative Final	September 8	40
BONUS Self-Guided Scripps Coastal Tour	Last day of Discussion Section	2
TOTAL		100 + 2 BONUS

* You will be allowed to bring in any *hand-written* materials to the midterm and the final. All materials need to be approved at exam check-in.

There will be one midterm exam, worth 30%, and one cumulative final exam, worth 40%. The remaining 30% will be obtained by attending **MANDATORY** sections (10%) and from quizzes and activities completed during sections (20%). You must attend the section in which you are enrolled, and all section assignments can only be completed and handed in at that time. You are only required to attend **8 out of 9** sections (i.e., you can miss 1 section without penalty). If you attend **all 9 sections**, you will be able to drop your lowest mark for the quizzes/activities.

****IMPORTANT NOTES FOR ASSIGNMENTS AND EXAMS****

There will be no make-up exams without proper documentation. In most cases, if an absence is unanticipated (and properly documented), the marks for the missed exam will simply be re-distributed across the remainder of the marks for the class. If the absence is anticipated, you will need to let me know at least 1 week ahead of time so that alternate arrangements can be made. **There will be absolutely no make-up or extra-credit assignments to boost your grades.** To make your life (and mine) more straightforward, it is easiest just to come to class and do your work.

Lecture Attendance: You are all adults, capable of making your own decisions, and of accepting the consequences of those decisions. Therefore, attendance is not mandatory (**except for Discussion Section**); however, it will be extremely difficult for you to do well if you do not attend. And although I occasionally do make use of slides, I teach primarily through writing on the board and class discussion. **I will not be providing you with notes or slides** if you miss classes, so be prepared to make (a) friend(s) that are willing to keep you up to date on what you have missed. Additionally, a recent study showed that students that rely on podcasts or other "lecture capture" techniques instead of attending class do worse than their peers who attended lectures (Edwards & Clinton, 2018), and I will therefore also not be podcasting my classes. You are, however, free to record lectures, if you desire.

Take-home message: Your "participation marks" are automatically built into your grade, in that if you come to lecture and participate, you will obtain a higher grade than if you do not.

Edwards, M. R., & Clinton, M. E. (2018). A study exploring the impact of lecture capture availability and lecture capture usage on student attendance and attainment. *Higher Education, 1-19*.

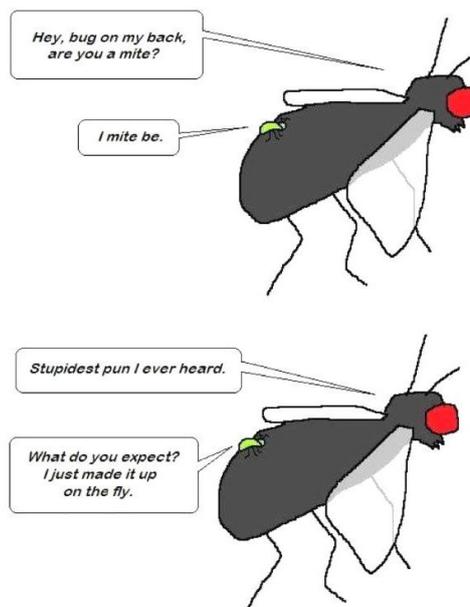
Exam Procedures

You will be required to check in with photo ID, and to have your hand-written notes checked, prior to writing the midterm and final exams. If possible, please plan to arrive early to do this.

Grade Determination

Letter	%
A+	≥ 97
A	≥ 94
A-	≥ 90
B+	≥ 87
B	≥ 84
B-	≥ 80
C+	≥ 77
C	≥ 74
C-	≥ 70
D+	≥ 67
D	≥ 64
D-	≥ 60
F	< 60

Please note that your final letter grade will exactly reflect whatever percentage score you have earned in the class. Grades will not be rounded up for individuals for any reason, as this is unfair. For the same reason, I will not be grading on a curve.



Policy on Cheating

Academic integrity underlies good science. As such, it is important that students adhere to the standards for academic integrity that have been set out by the University of California San Diego, and that dictate how scientific activities are carried out by the research community as a whole. Students that demonstrate academic dishonesty will be subject to penalties, including (but not limited to) reduction in his/her course mark, receiving a 0 on the assignment, and expulsion from the class. Serious offenses will be dealt with by the University of California San Diego Administration. Examples of academic dishonesty include (but are not limited to) the following.:

- **1) Plagiarism:** Copying someone else's work and handing it is as if it were your own. This includes copying your own previous work, copying/pasting from web pages, including Wikipedia, and paying someone to write a paper for you.
- **2) Unauthorized Collaboration on an Academic Exercise:** Receiving unauthorized help from another student or other source during an exam or on an assignment.
- **3) Providing False Excuses:** Lying about why one cannot take an exam or why an assignment is late and forging or altering a legal or medical excuse.

How To Do Well In This Class

- Attend lectures every day and arrive on time
- Read the chapters in the book as thoroughly and early as humanly possible
- Take good, hand-written notes on **both** the lectures and the readings
- Come see me as soon as possible if you do not understand something. It is impossible to learn the whole course the last week, especially if you are struggling. Don't wait to take action!
- Form study groups
- Attend discussion sections. Seriously, you are just throwing away marks if you do not!

Accommodations

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. For more information, contact the OSD at (858) 534-4382 (voice), osd@ucsd.edu, or visit osd.ucsd.edu.

Diversity and Equity Statement

It is important for us to make sure that how we teach this course and how we accommodate different student needs reflects the differences of race, ability, sexual orientation, age, and gender identity that enrich our classroom experience and campus. If you have any concerns related to diversity and equity in the course, please contact the instructor.

Course Outline

For maximum effectiveness, readings for each topic should be completed prior to the topic's discussion in class. The readings are meant to complement and enhance class discussions. An important part of your university education is for you to develop the ability to learn independently (i.e., to seek out information and understand it on your own; to look up terms you don't understand on your own *first*, before requesting help, etc). Make sure to ask me if something is unclear *well before* the exams.

August 7

- Introduction
- Origin and History of Life, Chapter 25
- Mechanisms of Natural Selection, Chapter 22
- Bacteria/Archea, Chapter 27

August 8: First discussion section!

August 9

- Evidence for Evolution, Chapter 25
- Systematics, Chapter 26
- Single-celled Eukaryotes, Chapter 28

August 14

- Speciation/Macroeolution, Chapter 24
- Population Genetics, Chapter 23
- Land Plants, Chapter 29

August 16

- Population Ecology, Chapter 53
- Community Ecology, Chapter 54
- Seed Plants, Chapter 30

August 21

- **MIDTERM (2h)**
- LECTURE AFTER MIDTERM: Fungi, Chapter 31

August 23

- Ecosystem Ecology, Chapter 55

August 28

- Conservation Biology/Ecology, Chapter 52
- Metazoa, Chapter 32

August 30

- Behavioral Ecology, Chapter 51
- Invertebrates, Chapter 33

September 4

- Evo Devo, pp. 457-462; 542-543
- Vertebrates, Chapter 34

September 6

- Human Evolution, pp. 744 - 752

