

BILD3: Organismic and Evolutionary Biology

Summer 2020; session I (6/29 - 8/1)

M, Tu, W, and Th 11 AM -12:20 PM PST

Online instruction (see below)

Instructor: Dr. Jeremy Hsu
hsu@chapman.edu

Office hours: Tuesdays, 2 - 3 PM PST
 Wednesdays, 9:30 – 10:30 AM PST
 Fridays, 9 AM – 10 AM PST
All Zoom links available on Canvas

Instructional assistants:

- Nancy Xing (head IA): nxing@ucsd.edu
 - Office hours:
 - Mondays 6 – 7 PM
 - Wednesdays 7 – 8 PM
- Noorhan Monther: nmonther@ucsd.edu
 - Office hours:
 - Mondays 9:30 – 10:30 AM PST
 - Thursdays 12:30 PM – 1:30 PM PST
- Cindy Wang: xiw415@ucsd.edu
 - Office hours:
 - Tuesdays 3 – 4 PM
 - Thursdays 10 – 11 AM

All students are welcome at the instructor's office hours or office hours for any IA, even if they are not your own IA. Zoom links and a full schedule are posted on Canvas. Please also utilize the discussion forum to ask questions and get clarification!

Discussion sections

- Section 01: M/W 1 – 1:50 PM: Cindy Wang
- Section 02: M/W 2 – 2:50 PM: Noorhan Monther
- Section 03: Tu/Th 9 – 9:50 AM: Nancy Xing
- Section 04: Tu/Th 10 – 10:50 AM Nancy Xing

I. Catalog description, units, and co-requisites

BILD 3 is an introduction to the biological fields of evolution and ecology. Evolution is the study of how populations of living organisms change over time. 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 and the importance of a general understanding of these topics within

biology so as to be better stewards of the earth's biota. We will also discuss human impacts on global climates, species extinctions, environmental alterations, and the role of conservation.

II. Course learning outcomes

1. Students will obtain a firm understanding of how evolution has shaped all organisms.
2. Students will become familiar with key terms and concepts in ecology, evolution, and plant biology.
3. Students will apply the scientific method to answer conceptual questions.
4. Students will demonstrate familiarity with how organisms have evolved and adapted, and recognize the relationships between various taxa.

III. Required materials

A. Computer or tablet and Internet connection

BILD 3, like all UCSD classes this quarter, will be taught entirely online. In order to participate in your UCSD classes this quarter, including BILD 3, you will need a computer or tablet and an internet connection. You might be able to get by with a smart phone but it will make things substantially more difficult, and some things may not work via the phone, possibly including quizzes. If you don't have a computer/tablet at home and are concerned about affording one, email vcsa@ucsd.edu to ask if they can help.

B. Access to Canvas and Zoom

You will need to set up your Zoom account and **log in with your UCSD email**.

UCSD has purchased a Zoom site license for all students, staff, and faculty. You will need to install Zoom on whatever device you plan to use for the quarter. Go to <https://ucsd.zoom.us/> to get started.

C. Textbook

The textbook is Campbell Biology, 10th or 11th edition. Make sure you have Campbell Biology rather than Campbell Biology in Focus; they are substantially different books. The UCSD bookstore is accepting online orders and offering free delivery. If you don't want to order the whole textbook, you can order the custom BILD 3 edition, which is a paperback or loose-leaf set of only the chapters we use in BILD 3, and it's cheaper. The custom BILD 3 edition is only available from the UCSD bookstore; choose "BILD 3 Custom Campbell Biology" from the choices in the book listings. If you find a used copy somewhere other than the UCSD bookstore, make sure it has a jellyfish on the cover. If it's a picture of red blood cells, it's an excerpt from a different textbook and you shouldn't buy it. ISBN for the excerpt: 9781323677223

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. You also do **not** need an iClicker given the online nature of this class.

IV. Course website

The class will be run from the Canvas site. You will need to check this several times a week: canvas.ucsd.edu (click on BILD 3 link). You can also use coursefinder.ucsd.edu, which will take you to all your courses whether they're on Canvas or TritonEd. UCSD is transitioning from TritonEd to Canvas. Our BILD 3 course will be managed using Canvas, while some of your other courses may appear in TritonEd. The Course Finder page (coursefinder.ucsd.edu) will display all of your TritonEd and Canvas courses.

If you have not used Canvas before, refer to the student help guides and videos, which are located on the left-side menu's help section (the question mark icon). Should you need any technical assistance with Canvas, please alert your instructor and send an email to servicedesk@ucsd.edu. In the header of the email, please write "Canvas". Make sure to include your name, course title and section, as well as your contact information in the email body.

Instruction on how to access your account for logging on to UCSD's Canvas sites can be found here: <http://acms.ucsd.edu/students/accounts-and-passwords/index.html>. Concurrent enrollment (extension) students are not added automatically. More information for extension students can be found here: <https://extension.ucsd.edu/student-resources/>

Please make sure that you check out this website for resources on how to learn remotely: <https://digitallearning.ucsd.edu/learners/learning-remote.html> This syllabus is subject to change, particularly because of campus efforts to contain COVID-19. Any schedule changes will be posted on the course website. Make sure to frequently check the website to keep updated.

V. Course structure

A. Lectures

The course will be held using **synchronous (live) online lectures at the scheduled class times using Zoom; the class will make use of active learning strategies and participation is highly encouraged.** The class (and all discussions sections) will also be recorded and made available asynchronously if you are unable to make the class. Webcams are highly encouraged to increase engagement and learning, particularly given that there will be frequent small group breakout sessions where you will have the opportunity to interact with your peers.

B. Discussion sections

In addition to the synchronous lectures, you will also have twice a week discussion sections that meet live (synchronously) via Zoom. Attendance at your registered discussion sections is strongly encouraged, though flexibility will be given if section attendance poses a barrier due scheduling conflicts (work schedule, child care, etc.) or other circumstances – please communicate with your IAs directly. Section is your main opportunity to discuss the class material, which will help your performance on assignments and quizzes. Each section will include a "concept check assessment", which you will be able to work together on if you attend section. If you cannot attend section

you will still be expected to turn in these assignments. Your IA will provide feedback on your learning through these concept check assessments.

C. Additional learning supports

- There will be discussion boards on Canvas where you can post your questions and answer other students' questions. IAs will monitor this but I encourage you to help each other! Please be respectful and kind, and please direct all content questions to the discussion boards.
- Lecture slides for each module will be posted ahead of time on Canvas so you can follow along and completed slides will also be posted with annotations after each lecture.
- Specific learning objectives to each module will be posted in advance of each module.
- You will have weekly problem sets as well as section concept checks, which are designed to be completed in section. If you do not submit in section the concept checks are due by 11 PM PST every Tuesday and Thursday for the respective sections. All assignments should be submitted via Gradescope, and late assignments will be marked down 10% for each calendar day (or part of a day) that they are late.
- Readings are listed on the last page of this syllabus; you are encouraged to keep up with reading your textbook.

VI. Grading procedure

Point breakdown for BILD 3

Three quizzes in sum	150 points	15%
Midterm	250 points	25%
Five problem sets in sum	100 points	10%
Final exam	300 points	30%
Section concept checks	200 points	20%

All assessments (exams, quizzes, etc.) will be given online. The grading scale follows the standard UCSD percentage scale.

Grading scale: **A:** 90-100%; **B:** 80-89%; **C:** 70-79%; **D:** 61-69%; **F:** 61% and below
Plus/minus: Scores that fall within the top 3% of the letter grade range (e.g. 97-100%, 87-90%, etc.) will earn a “plus”, while those that fall within the bottom 4% of the letter grade range (e.g. 90-93.9%, 80-83.9%, etc.) will earn a “minus”. Note that as per the standard UCSD grading scheme scores of 61% and below are an F.

VII. Academic honesty

Academic integrity is expected of everyone at UC San Diego. This means that you must be honest, fair, responsible, respectful, and trustworthy in all of your actions. Lying, cheating or any other forms of dishonesty will not be tolerated because they undermine learning and the University's ability to certify students' knowledge and abilities. Thus, any attempt to get, or help another get, a grade by cheating, lying or dishonesty will be reported to the Academic Integrity Office and will result in sanctions. Sanctions can

include an F in this class and suspension or dismissal from the University. So, think carefully before you act by asking yourself: a) is what I'm about to do or submit for credit an honest, fair, respectful, responsible & trustworthy representation of my knowledge and abilities at this time and, b) would my instructor approve of my action? You are ultimately the only person responsible for your behavior. So, if you are unsure, don't ask a friend — ask your instructor, instructional assistant, or the Academic Integrity Office. You can learn more about academic integrity at academicintegrity.ucsd.edu. (Source: Academic Integrity Office, 2018)

Students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity. Academic misconduct is broadly defined as any prohibited and dishonest means to receive course credit, a higher grade, or avoid a lower grade. Academic misconduct misrepresents your knowledge and abilities, which undermines the instructor's ability to determine how well you're doing in the course. Please do not risk your future by cheating.

If you do not understand these expectations and authorizations, please speak with the Instructor as soon as possible. Please read the official UCSD policy at <https://academicintegrity.ucsd.edu/process/policy.html>

Students suspected of AI violations on exams may be invited to Zoom follow-up meetings where they will be asked to (in real time, on video) justify their answers (before the graded exams or solutions are released). If the instructor is not convinced during the meeting, or the student refuses to participate, they're submitted for AI violations

VIII. Accessibility

UC San Diego (as an institution) and I (as a person and as the instructor of this course) are committed to full inclusion in education for all people. Services and reasonable accommodations are available to students with temporary and permanent disabilities, to students with DACA or undocumented status, to students facing mental health issues, other personal situations, and to students with other kinds of learning needs. Please feel free to let me know if there are circumstances affecting your ability to participate in class. Some resources that might be of use include:

- Office for Student with Disability, <https://students.ucsd.edu/well-being/disability-services/index.html>
- UC San Diego CAPS (Counseling & Psychological Services), <https://wellness.ucsd.edu/CAPS/Pages/default.aspx>
- UC San Diego Undocumented Student Services, <https://uss.ucsd.edu/> Note: a list of campus resources can be found here: <https://students.ucsd.edu/sponsor/undoc/resources/index.html>
- Learning Strategies Center, <https://commons.ucsd.edu/academic-support/learning-strategies/index.html>

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 <http://osd.ucsd.edu>. You will need to coordinate scheduling of quizzes with me. All of these arrangements should be made within the first two weeks of the quarter.

IX. Student support

If you are having academic difficulty, OASIS (<http://oasis.ucsd.edu/>) can often help. They provide tutoring, as well as classes in study skills and time management. This is a stressful time. If you are having personal difficulties, do not hesitate to seek help at Counseling and Psychological Services (CAPS): (<https://wellness.ucsd.edu/CAPS/Pages/default.aspx>), which is free to students. They can help you get over many types of hurdles. Problems? If you have serious medical or personal problems during the quarter, the university allows medical withdrawals. Contact the Biology Student Affairs Advising Services office at 858-534-0557 or go to their website.

X. Diversity and inclusion

- **Name & Gender Pronouns**

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me early in the semester so that I may make appropriate changes to my records.

- **Diversity Statement for Course Syllabi from UC San Diego Division of Biological Sciences**

I believe very strongly that the classroom is a place to expand our knowledge and experiences safely, while being respected and valued. I support the values of UC San Diego to “create a diverse, equitable, and inclusive campus in which students, faculty, and staff can thrive”. I strive to uphold the values articulated by the Office of the Vice Chancellor for Diversity, Equity, and Inclusion: “We believe that true excellence is achieved through productive relationships among people of diverse perspectives. When the collective talents of our students, faculty, and staff at UC San Diego are united in an environment that is open and inclusive, creativity and innovation prospers.” I hope you will join me in creating a class that upholds these values to further enhance our learning as a community. For more information, please visit: <http://diversity.ucsd.edu>

- **Communication Statement**

It is my hope that in this course we will develop a supportive learning community that will foster rich discussions through the sharing of personal ideas, experiences, and relationships to course material. Honesty, listening for understanding, a willingness to share your ideas, and respect for self and others are basic guidelines that can help

create a positive learning environment. Your participation and feedback is important to the success of the course and I welcome your thoughts throughout the term on how we might improve class processes that will encourage effective communication and dialogue.

XI. Tentative schedule

Week	Topics	Reading	Assessments
Week 1: 6/29 – 7/2	Introduction; evidence of evolution; evolutionary forces and mechanisms	Ch 22, Ch 23, Ch 24	Quiz 1 on 7/2; Section concept checks 1 and 2
Week 2: 7/6 – 7/9	Finish evolutionary forces/mechanisms; population genetics	Ch 23, Ch 24	Problem set 1 due Monday, 7/6 at 11 PM PST; Quiz 2 on 7/9 Section concept checks 3 and 4
Week 3: 7/13 – 7/16	Phylogenetics, speciation, and human evolution	Ch 24, Ch 26.1 – 26.3, Ch 34.7	Problem set 2 due Monday, 7/13 at 11 PM PST; Midterm exam on 7/16 Section concept checks 5 and 6
Week 4: 7/20 – 7/23	Population and community ecology	Ch 52, 53, 54	Problem set 3 due Monday, 7/20 at 11 PM PST; Quiz 3 on 7/23 Section concept checks 7 and 8
Week 5: 7/27 – 7/31	Community and ecosystem ecology	Ch 54, 55	Problem set 4 due Monday, 7/27 at 11 PM PST; Problem set 5 (self-reflection/exam practice) due Thursday, 7/30 Section concept checks 9 and 10 Final exam on Friday, 7/31 from 11:30 AM – 2:30 PM PST

XII. Student resources for support and learning

ACADEMIC SUPPORT

Geisel Library	Research tools and eReserves
Content Tutoring with the Teaching +	Drop-in and online tutoring through the

Learning Commons	Academic Achievement Hub
Supplemental Instruction with the Teaching + Learning Commons	Peer-assisted study sessions through the Academic Achievement Hub to improve success in historically challenging courses
Writing Hub Services in the Teaching + Learning Commons	Improve writing skills and connect with a peer writing mentor
Learning Strategies Tutoring	Address learning challenges with a metacognitive approach
OASIS	Intellectual and personal development support
Student Success Coaching Program	Peer mentor program that provides students with information, resources, and support in meeting their goals
Academic Integrity	Policy on Academic Integrity of Scholarship and strategies to excel with integrity
Technical Support	Assistance with accounts, network, and technical issues

STUDENT RESOURCES

UC San Diego (as an institution) and I (as a human being and instructor of this course) are committed to full inclusion in education for all persons. Services and reasonable accommodations are available to students with temporary and permanent disabilities, to students with DACA or undocumented status, to students with health or other personal concerns, and to students with other kinds of support needs. Please feel free to let me know if there are circumstances affecting your ability to participate in class. Some resources that might be of use include:

Basic Needs	Provides access to food, housing, and financial resources
Counseling and Psychological Services (CAPS)	Provides services like confidential counseling and consultations for psychiatric services and mental health programming

Community Centers	As part of the Office of Equity, Diversity, and Inclusion the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus
Counseling and Psychological Services	Individual, group, couples, and family psychotherapy services for registered undergraduate and graduate students
Office for Students with Disabilities	Documents student disabilities, provides accessibility resources, and reasonable accommodations
Triton Concern Line	Report students of concern at (858) 246-1111
Undocumented Student Services	Programs and services are designed to help students overcome obstacles that arise from their immigration status and support them through personal and academic excellence

Campus Policies

UC San Diego Principles of Community

The University of California, San Diego is dedicated to learning, teaching, and serving society through education, research, and public service. Our international reputation for excellence is due in large part to the cooperative and entrepreneurial nature of the UC San Diego community. UC San Diego faculty, staff, and students are encouraged to be creative and are rewarded for individual as well as collaborative achievements.

To foster the best possible working and learning environment, UC San Diego strives to maintain a climate of fairness, cooperation, and professionalism. These principles of community are vital to the success of the University and the well being of its constituents. UC San Diego faculty, staff, and students are expected to practice these basic principles as individuals and in groups. [Click here for the complete UC San Diego Principles of Community in English and Spanish.](#)

Nondiscrimination and Harassment Policy Statement

The University of California, in accordance with applicable federal and state laws and university policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender, gender identity, gender expression, pregnancy, physical or mental disability, medical condition, genetic information, ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services. The university also prohibits harassment based on these protected categories, including sexual harassment, as well as sexual assault, domestic violence, dating violence, and stalking. The nondiscrimination policy covers admission, access, and treatment in university programs and activities.

If you have questions about student-related nondiscrimination policies or concerns about possible discrimination or harassment, they should contact the Office for the Prevention of Harassment & Discrimination (OPHD) at (858) 5348298, ophd@ucsd.edu, or reportbias.ucsd.edu.