

Lectures and discussion sections for this course will be held in person unless the conditions of the COVID-19 pandemic dictate a change to remote instruction.

Lecture times: MWF 1-1:50 PM, Pepper Canyon Hall 109

Welcome to BILD 3! This has been a challenging year for many reasons, including the ongoing COVID-19 pandemic. As your professor, I value your health, wellbeing, and learning. This course will challenge you to deepen your understanding and to grow as a student. However, this is not at the expense of your wellbeing. This is an in-person course and we will follow UCSD's guidelines for everyone's health. You should plan on attending the lectures and discussion sections in person if you are well enough to do so. However, I have built flexibility into the course so if you are sick you can take care of yourself. Beyond physical health, I encourage you throughout the quarter to make time for yourself to recharge, relax, and rejuvenate with healthy ways to find joy. Taking time to do so will help you with your studying – we learn best when we are in better states of mind! Finally, while this quarter may have unique challenges, I encourage you to celebrate the victories you will have, both large and small.

Adapted from Claire Meaders and Nicole Gonzalez Van Cleve.

COURSE DESCRIPTION

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.

When you have completed this course, you should be able to:

- Explain how evolutionary processes such as natural selection, sexual selection, gene flow, and chance events (mutation, genetic drift) change allele frequencies and phenotypes over time.
- Interpret evolutionary trees to determine homology, derived traits, common ancestors, and relationships between taxa.
- Identify the relative order of, and approximate elapsed time between, major events in earth's history, including the origin of the earth and of major taxonomic groups.
- Explain the processes by which new species arise and the mechanisms of reproductive isolation.
- Describe the evolution of *Homo sapiens*, including anatomical differences from our ancestors and our evolutionary relationship with non-human primate species.
- Identify the evolutionary relationships among the 3 domains of life: Archaea, Bacteria, and Eukaryota.
- Compare and contrast animals, plants, and fungi, including their adaptations, ecological roles, and evolutionary relationships.
- Identify the major phyla of animals and major plant groups based on their characteristics.

- Describe how the sun drives large-scale temperature/precipitation patterns across the planet and how those patterns affect biomes.
- Describe the ecological roles of producers, consumers, and decomposers and how they interact in a food chain/web.
- Describe how energy flows, and nutrients cycle, within ecosystems.
- Explain how species in an ecological community interact with one other and their environments.
- Describe factors that produce different population growth patterns.
- Describe the causes and major consequences of global climate change.

IN-PERSON INSTRUCTION IN THIS CLASS

This is an in-person class. I have mechanisms in place to accommodate students who need to miss individual lectures/assignments for reasons such as temporary illness or required quarantine. However, those mechanisms are emergency measures; they are not intended as a way for you to take all or even a substantial part of the class remotely. If you are unable to attend this class in person most of the time, please drop it and look for classes that are being offered remotely this quarter instead (look for RCLAS in the classroom field in WebReg). I will also be teaching BILD 3 again in the fall.

The midterm and final exam are in-person exams.

If you have special circumstances regarding your ability to attend most of the class in person, please email me as soon as possible to discuss your situation: sarahs@ucsd.edu.

If you develop COVID-19 symptoms or test positive for COVID-19 during the quarter, please make your safety and the safety of others your top priority: use the remote alternatives and flexible policies to keep up with the classwork until it is safe for you to return to in-person class. If you have been exposed to COVID-19, please follow UCSD's guidelines.

MASK POLICY

Per UCSD's requirements, you will need to wear a face mask all the time while you are in class. This means there will be no food or drink in class. Here is UCSD's definition of what counts as a mask: "A face covering/face mask DOES NOT include a scarf, ski mask, balaclava, bandana, gaiter, turtleneck, collar, plastic face shield, or single layer of fabric."

PROFESSOR CONTACT INFORMATION

Dr. Sarah Stockwell (she/her) <sarahs@ucsd.edu>

Office hours: Tuesdays 2:30-3:30 PM.

The office hours for this course will be on Zoom unless announced otherwise. Recurring Zoom meeting for my office hours: 979 4462 5094 or use <https://ucsd.zoom.us/j/97944625094>

HEAD INSTRUCTIONAL ASSISTANT CONTACT INFORMATION

Anngely Leeds <acleeds@ucsd.edu>

Office hours: See "Discussion sections, IAs, and office hours" on the class Canvas site.

OFFICE HOURS

The Instructional Assistants (IAs) and I will have office hours via Zoom. This is the best way to have a one-on-one conversation with me or with your IA. The Zoom links for everyone's office hours are on the "Discussion sections, IAs, and office hours" page on Canvas. You can go to the office hours of any IA, and of course you are always welcome in my office hours.

NOTE: Please contact me only in case of an emergency. The best way to contact me is via email. **Please email your IA or the head IA (see above) for all other inquiries.** In all emails, **please put “BILD 3” in the subject line** to indicate your email is about this course. Because there are so many students in this course, we cannot answer individual questions about course content and these emails will be deleted. To get your questions answered: Ask during class, attend discussion sections, go to IA and professor office hours, and post in the Discussions on Canvas.

This syllabus is subject to change, particularly because of campus efforts to contain COVID-19. Any schedule changes will be posted on the Canvas site. Make sure to frequently check the Canvas site to keep updated.

COURSE WEBSITE

IMPORTANT! For reading assignments to complete before class, lecture slides to download after class, discussion section assignments, grades, etc., use the Canvas site:

canvas.ucsd.edu (click on BILD 3 link).

YOU WILL NEED TO CHECK THE CANVAS SITE SEVERAL TIMES A WEEK.

Canvas student help guides and videos are located on the left-side menu’s help section (the question mark icon). Should you need any technical assistance with Canvas, please 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 to Canvas automatically. More information for extension students can be found here: <https://extension.ucsd.edu/student-resources/>

REQUIRED MATERIALS

- **Textbook:** Campbell Biology 10th, 11th, or 12th edition. Make sure you have Campbell Biology rather than Campbell Biology in Focus; they are substantially different books. I will assign readings from the textbook for most lectures, and there will be reading quiz questions as well, so you need access to the book to succeed in the class.
- **How to get the textbook?**
 - The UCSD Bookstore may have some used physical copies of the book. You can also buy it from other book sellers outside UCSD such as abebooks.com. The 12th edition has a blue flower on the cover, the 11th edition has a sunflower on the cover, and the 10th edition has a dandelion on the cover.
 - The 12th edition is primarily available in eBook form. The UCSD Bookstore sells limited-time access to the 12th edition eBook. If you are planning to take BILD 1 and/or 2, look carefully at how long you will have access, since you’ll likely need the book again for those classes.
 - If you are browsing outside booksellers, you may come across a used copy of a paperback excerpt of the textbook that includes only the chapters relevant to this class. It would be

labeled BILD 3. This is fine to use. Note that there is an excerpt for an old version of BILD 3 that has a picture of red blood cells on the cover; that's an excerpt from a different textbook and you shouldn't buy it.

- The book is on reserve at Geisel Library. This is the least convenient option but has the merit of being free.
- **iClicker:** You will need to bring an iClicker to class. A used one is fine. Older versions of the iClicker can be used as long as the remote ID can be read and the remote can be registered on Canvas. 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).
- Note: The publisher of Campbell Biology offers a paid web site called Mastering Biology. This may be useful to you, but it is NOT required.

Access to Zoom

We are using Zoom for office hours and may need to switch to Zoom for additional parts of the class depending on the pandemic. 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.

GRADING

- 20 points: Week 3 quiz (on Canvas, open-book)
- 40 points: Midterm (in person, closed-book)
- 60 points: Final exam (in person, closed-book, cumulative)
- 25 Points: Clicker participation in lectures
- 50 points: Daily Quizzes on Canvas
- 30 points: Discussion section participation
- 47 points: Discussion section activities/assignments

Total: 272 points.

These point totals may change slightly. There will be a small number of extra credit points available; details announced later.

See below for details on each of these, including how to get the points remotely if you are ill or quarantined. Note that there is no remote alternative for the midterm or final exam; see below.

To give everyone time to get up to speed, there will be no points for clicker participation or Daily Quizzes until the second week of class (April 4). I will do them so you can practice, but all points for those will be wiped out after the first full week and everyone will start fresh in week 2. Take this opportunity to troubleshoot any problems with iClickers, Canvas quizzes, etc. I will assume that you have solved any problems with your iClicker or Canvas quiz access by the second week. Make sure you keep up with the lectures, readings, assignments, etc. from the beginning so you don't fall behind with the material. Quarters go fast!

Exams and the Week 3 Quiz will cover material covered in lecture, readings assigned for lecture and section, and section activities and assignments. Use the learning objectives as a guide to what you need to know for the exams and quizzes.

Week 3 Quiz:

The quiz will be open for 24 hours. Once you start the quiz, you will have **25 minutes** to complete it. The quiz will open at 2 PM on Sunday April 17th and close at 2 PM on Monday April 18th, so be sure to start taking it by 1:30 PM on Monday at the latest.

If you send me email once you have started the quiz, do not count on getting a reply within 25 minutes. If you have questions, get them answered before you start the quiz.

The purpose of the Week 3 Quiz is to give you feedback on how you are doing in the class. For this reason, **I have set up the grading so that you can entirely recover from a low score on the Week 3 Quiz as long as you take the opportunity to improve your study strategy after the quiz.** It works like this: If you do better on the midterm than on the Week 3 quiz, your midterm percentage will replace your Week 3 Quiz percentage. For example: if you got 12 points on the Week 3 quiz (60%) but then got 80% on the midterm, I will count your Week 3 Quiz grade as 16 points (80%) when I calculate grades at the end of the quarter. If you get a lower percentage score on the midterm than on the Week 3 Quiz, your Week 3 Quiz score will not change.

The grading policy is also intended to cover technical glitches, illness, etc. for the Week 3 Quiz. If your Internet connection fails or your laptop runs out of battery halfway through the quiz or you have food poisoning, you have my sympathy but you don't need to email me about it; just study hard for the midterm, and your midterm percentage will become your Week 3 Quiz score as well.

The Week 3 quiz will cover all material from the first 3 weeks. It will be given on Canvas, using a similar format to the daily quizzes except that you will only get one chance to answer each question. If you have had technical problems taking the daily quizzes, please resolve those by the time of the Week 3 quiz. The IT folks recommend using Chrome for Canvas quizzes, especially if you have problems with pictures not showing up in your browser. If that fails, email servicedesk@ucsd.edu.

The Week 3 quiz will be open-book and open-notes, but you must take the quiz on your own. That is: you may consult the readings, lectures, your own notes, and other materials from the class this quarter, but you may not communicate in any way with anyone else about the quiz while it is open. Do not use Internet resources or other resources outside our class to answer quiz questions. Do not discuss or share information about the quiz with other students in the class for 48 hours after the quiz ends. Do not share information about the quiz outside the class at any time. You may use a calculator if needed. Please see the Academic Integrity policy in the syllabus.

Students suspected of academic integrity violations on quizzes will be invited to Zoom follow-up meetings where they will be asked to (in real time, on video) justify their answers. If the instructor isn't convinced during the meeting, or if the student refuses to participate, the violations will be reported to the Academic Integrity Office.

Studying note: Because the quiz is timed, you should study for it just as much as you would if they were closed-book. You will probably have time to double-check a specialized term or two if your notes are organized, but that's about all. So make sure you understand all the material, including the concepts and how to apply them, before the quiz starts.

Midterm and final exam:

These exams will be held in person and will be closed-book (i.e., you may not use notes or any resources other than your own brain). The midterm will contain material for weeks 1-5. The final exam will be cumulative, covering the whole class but weighting the second half of the class more heavily. Exam scores will be available after grading is complete, but the exam questions will not be returned. Questions concerning exams will be addressed in IA and/or professor office hours. **We will check photo ID at each exam, so please bring a photo ID. Students who do NOT have photo ID will not be permitted to turn in an exam.**

During the quarter, if you become unable to take an exam due to serious illness or other emergency, email me before the exam (the earlier the better) and we will discuss your options. **Please note that as of this writing, UCSD's policy is that "Fully vaccinated students who have been exposed [to COVID-19] are allowed to attend class and move about campus masked" which includes attending in-person exams.** This does not include people who have COVID-19 symptoms or a recent positive test result. You can find an up-to-date policy and more details here: <https://returntolearn.ucsd.edu/return-to-campus/exposure-contact-tracing/index.html> If you are concerned that you would endanger others by attending an in-person exam, please email me as soon as possible to discuss your situation (sarahs@ucsd.edu). If you have extraordinary circumstances that make it impossible for you to take an exam in person, please email me as soon as possible and we will discuss your options. Otherwise you will receive a 0 on a missed exam.

Note: depending on the conditions of the pandemic, one or both of the exams may need to be switched to an alternate format such as additional online quizzes. If I need to make this change, I will announce it during the quarter.

Clicker participation in lectures

We will be using clickers (iClickers) in lectures. This is a response system that allows you to answer questions I pose in class. The questions are intended to spark discussion and to help both of us — you and me — gauge how well you are understanding the material. These are graded on participation (you get credit for clicking in, regardless of which answer you choose). For each lecture in which you attend and participate in the iClicker questions, you will receive 1 point. To receive credit, you need to register your iClicker remote at the beginning of the quarter using the link on our Canvas course site. iClickers will be used during every lecture. See the last pages of the syllabus for more details on clickers.

Threshold grading: There are 25 lecture days in the quarter beginning with week 2. I understand that conflicts and sick days come up, so clicker points are graded using a threshold model: **If you get the clicker points for 65% of the lecture days during the quarter, you will get full credit for completing all the days. This policy is intended to cover illness and quarantine periods, so attend class when you are healthy enough to do so. If you skip classes in the first part of the quarter and then become sick or need to quarantine, you will likely fall under the 65% threshold.**

Daily Quizzes on Canvas

To help you prepare for the exams and the Week 3 Quiz, I will post one Daily Quiz for each class day on Canvas. You must complete the Daily Quiz by the start of class time to get credit for it. Each Daily Quiz will have two questions. The first question will test whether you read and understood the reading assignment. The second question is about material covered in the previous lecture; it generally requires more thought and **is an example of the kind of question I ask on exams.** Think of the second question as ongoing exam practice.

The Daily Quizzes are designed as a tool to help you check your understanding. As a result, you can take each quiz multiple times until you get it right. Answer these questions using only your brain, no notes/book/slides/etc., so you can check how well you understand/recall the material. **I strongly encourage you to monitor how well you do on these. If you find that you often get them wrong on the first try, change your study strategy or you are likely to do poorly on the exams and Week 3 quiz.** I have posted study tips for BILD 3 on the Canvas site; I urge you to read them and take the advice.

Discussion section participation

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IA-led discussion sections **are required** unless noted on the section schedule at the end of the syllabus, and will be held in person. You must attend the discussion section you registered for. You will receive points up to 3 points for participating in each discussion section. Sections will meet beginning in the first full week of classes. Sections will discuss assigned readings, discuss material from lecture, or do activities. **All material from section readings, activities, and assignments is fair game for the exams/quiz.** See the “Discussion sections, IAs, and office hours” page on the class Canvas site for information regarding times and locations of discussion sections, as well as contact information for IAs.

In general, you must attend the discussion section you are registered for in order to receive participation credit. However, if there is a particular week in which you have a special, valid reason for needing to attend an alternate discussion section in person (e.g., you were sick for your Monday section but can attend section on Wednesday), email your IA and the IA of the alternate discussion section to see if they are able to accommodate you. (IA email addresses are on the “Discussion sections, IAs, and office hours” page on the Canvas site.) You must get permission from the alternate IA before attending their section.

If you are unable to attend discussion section in person at all in a particular week, there will be a way for you to make up the participation points posted on the Canvas page for that week’s section.

Discussion section activities/assignments

Some discussion sections will include written assignments that you will complete in section, do as homework, or both. These will be posted on Canvas. The assignments are required even if you don’t attend section that week, so it’s your responsibility to check the Canvas page even if you can’t come to section. Homework assignments are due **by the beginning of the next week’s section.** If you know you won’t be able to attend your section that week for some reason, you can give the assignment to your IA ahead of time.

If you are unable to attend a particular week’s discussion section in person, there will be a way for you to complete the assignment remotely. It will be posted on the Canvas page for that week’s discussion section. It is generally easier, as well as more fun, to complete the assignments and activities in person at the discussion section.

Note that material from discussion section readings, activities, and assignments are fair game for the quiz and exams.

LEARNING OBJECTIVES

BILD 3 has a lot of material. To help you focus your studying on the main ideas, I have written **learning objectives** for each topic we cover. These are the key to the class and they are what I base the exams and Week 3 quiz on. I will post learning objectives for each topic as we go through the quarter.

LETTER GRADES

Your final letter grade will be based on your **TOTAL** number of points. If you get over 90% of the points you will receive an A, over 80% you will receive at least a B, etc. **If needed** to adjust the distribution of letter grades upward, grades **may** be based on a curve. The curve will only be used (if it is used) to move letter grade thresholds down, so it can only help your grade, not hurt it. Don’t assume there will be a curve; in many quarters, the point distribution is high enough that there is no need to adjust the thresholds. The final course curve, if there is one, is based on the students that are enrolled in the course at the end of the quarter. For those taking the class pass/no pass (P/NP), the

minimum final grade to receive a grade of P is a C-. Please note that the University will not allow me to change a letter grade after it has been turned in except in cases of clerical error.

WHAT TO DO FOR EACH CLASS DAY

I will post a page on Canvas for each lecture day telling you what you need to do for that class. (There will also be a page for each week's discussion section.) The Canvas page for a typical lecture day will include:

Due by the start of class time:

- **Reading assignment.** The first Daily Quiz question is based on the day's reading assignment.
- **Daily Quiz** to be completed on Canvas.

Posted after class:

- **Lecture slides.** I will post the slides for each day's lecture to help you review. Be aware that they are, at best, outlines of the lecture, and essential material will be presented in lecture that does not appear on them or in the textbook. If you want to do well in the class, you will need to come to class; the slides are not enough.
- **Video podcasts** of the lectures will be posted in the Media Gallery on Canvas and/or on podcast.ucsd.edu. If you miss a lecture in person, watch the podcast as soon as possible, but be aware that there are sometimes technical problems with the podcast recordings so don't assume that they are a reliable substitute for coming to lectures. If you notice a persistent problem with the podcasts, please email me to let me know.

SUPPLEMENTAL INSTRUCTION

In addition to the lectures and discussion sections that are part of our course, there are optional (but useful!) Supplemental Instruction sessions that you are invited to attend. They are free sessions led by a student who has done well in BILD 3 in the past and who has been trained to facilitate your learning the material. Supplemental Instruction (SI) sessions offer students the opportunity to master course material within a community of learners. The SI program gives students a safe and inclusive environment to engage with, ask questions, and review lecture material with their peers. The SI Leaders facilitate these discussions through activities and guided questioning.

The BILD 3 SI sessions for our class meet on the following schedule. You are always welcome to attend!

In person: Fridays 3:30-4:50 PM, Teaching and Learning Commons (Geisel Library), Room 1504.

Via Zoom: Mondays 7:00 PM - 8:20 PM. The Zoom meeting information is posted on Canvas in the "Course information and syllabus" section.

LATE ASSIGNMENTS POLICY

Late assignments will be marked down 20% for each calendar day (or part of a day) that they are late.

ACADEMIC INTEGRITY

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.

To uphold academic integrity, students shall:

- Complete and submit academic work that is their own and that is an honest and fair representation of their knowledge and abilities at the time of submission.
- Know and follow the standards of the class and the institution.

Thus, no student shall engage in an activity that undermines academic integrity or facilitates academic integrity violations by others. This includes, but is not limited to, the following behaviors:

- No student shall procure, provide, or accept any material that contains questions or answers to any examination or assignment unless the student's possession of the material has been authorized by the instructor.
- No student shall complete, in part or in total, any academic work (e.g., examination, assignment, paper) or obtain academic credit (e.g., attendance, participation) for another person.
- No student shall allow any academic work or academic credit to be completed or obtained, in part or in whole, for themselves by another person.
- No student shall plagiarize or copy the work of others and submit it as their own work.
- No student shall employ aids in undertaking course work or in completing any exam or assignment that are not authorized by the instructor.
- No student shall alter graded class assignments or examinations and then resubmit them for regrading without the instructor's permission.
- No student shall submit substantially the same material more than once without prior authorization from the instructor, such as a paper that was written and submitted in another class.

(Source: UCSD Policy on Integrity of Scholarship, <http://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2>).

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>

ETIQUETTE FOR EMAILS AND IN THE CLASSROOM

All emails to professors and IAs should be polite and respectful, include your **first and last name** in the body of the email, and have **BILD 3 in the subject line**. Do not rely on email as a sure and immediate form of communication with the instructor. I will do my best to answer emails within two business days. The most certain way to get your questions answered is to ask in class, the Canvas discussions, your discussion section, or office hours.

You are expected to arrive on time for lecture, turn off cell phones, and respect your classmates.

Please do NOT post my lectures or class materials on public websites like Course Hero, Chegg, etc. I work hard on my lectures and do not appreciate the material being made public for anyone to see or download.

ENROLLMENT

Wait list: If you are on the wait list for this class you will be automatically added if space becomes available. You will have access to the Canvas site so you can keep up with the class while you are on the waitlist. 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/education/undergrad/advising/index.html>). Please do not ask IAs to add you to their section; they do not have any control over this process.

Enrollment questions: Administrative, advising, or registration questions should be submitted via the Virtual Advising Center (vac.ucsd.edu).

RESOURCES

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>
- The UCSD Basic Needs HUB is part of a UCSD network to address basic needs insecurity, including housing and food. It contains the Triton food pantry and other organizations. Students can obtain personal care products from the HUB for free, including shampoo, menstrual products, toothpaste, and even diapers for students with young dependents. 39% of UCSD students reported having trouble obtaining food: you are not alone, so I encourage you to take advantage of the support that's available. <https://basicneeds.ucsd.edu/>

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 exams and the week 3 quiz with me. All of these arrangements should be made within the first two weeks of the quarter.**

The Academic Achievement Hub (<https://aah.ucsd.edu/>) has many resources to help you succeed, including Learning Strategies tutoring: <https://aah.ucsd.edu/learning-strategies/index.html> and content tutoring for BILD 3: <https://aah.ucsd.edu/content-tutoring/online-tutoring.html>

For transfer students: The Triton Transfer Hub offers services to transfer students including study spaces, peer coaches, learning strategists, free printing, and community building opportunities. <https://transferstudents.ucsd.edu/transfer-hub/index.html>

If you are having academic difficulty, OASIS can often help. They provide tutoring, as well as classes in study skills and time management. <http://oasis.ucsd.edu>

Resources on how to learn remotely:
<https://digitallearning.ucsd.edu/learners/learning-remote.html>

If you don't have a computer/tablet at home and are concerned about affording one, go to <https://vcsa.ucsd.edu/news/covid-19> and click "Access to Computers, Discounted Software, and Internet" for information about borrowing a laptop. Questions about this program can be addressed to vcsa@ucsd.edu.

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.

BILD 3 TIPS FOR SUCCESS

Here is the best strategy for getting an A in this class:

1. Use the learning objectives! I base exams and quizzes on these. They are your guide to what you should focus on.
2. Read "How to study for BILD 3," posted on the Canvas site.
3. Make a study schedule for yourself to make sure you keep up with the class. Quarters go very fast and you can get behind before you know it. It's much easier to keep up than to catch up.
4. Do the reading assignments before each class.
5. Go to lectures and your discussion section, participate in discussions, and take notes.
6. When you take notes, write down a summary and essential details of the lecture; don't try to write down every word. The process of synthesizing and summarizing the lecture in your notes helps you learn the material.
7. Go over your notes within the next day or so and fill in details missed in lecture or topics you didn't understand, using material presented in the book or online or in discussion section. You should have a clear understanding of all the examples in lecture - why was each example important and what did it illustrate?

8. If you miss lecture, listen to the podcast and take notes as if you were in class. However, it's better to come to class so you can participate in class activities, ask questions, etc.
9. Study in groups! It's more efficient and helps build your confidence. It's a big class and a big university, and you will do best if you build a network of peers to learn with and get support from. Quiz each other on the learning objectives and other class material to find out what you actually know vs. what you thought you knew until you had to explain it to a friend!
10. Join the Study Group for our BILD 3 class. See the "Course Information and Syllabus" section of the Canvas site for more information on our Study Group.
11. Reflect on how many of the Daily Quiz questions you get right on the first try, and how confident you are in your answers. These are the kinds of questions you should expect to see on exams and quizzes. If you are getting many of them wrong, change your study strategy.
12. Go to your discussion section each week to have questions answered, discuss topics in detail, and get extra help and guidance. Post questions on the class Canvas discussion boards.
13. Ask for clarification during lecture. **I mean it, ask questions during lecture!**
14. Go to the professor and your IA's office hours and ask questions. It's not an imposition; we expect and want you to do it! **Asking for help doesn't mean you're struggling; it means you're taking advantage of the resources available to you.** Office hours are the best place to ask complex questions – you will get a much more thorough answer. We are happy to help you with material you are confused about, no matter where you are in your learning!

The amount of material presented in this course 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.

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, nor can you get clicker credit for handing in questions on paper, etc.**

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. Make a note of your ID number in case it becomes unreadable.

Register your clicker:

You must register your clicker through the class Canvas site by the end of the second week to receive credit for responses during class. On the left side of the Canvas page, there is a list of modules. Click the "iClicker Registration" module and follow the instructions. You will not see your clicker points on Canvas until you have registered your clicker.

NOTE: The instructions that come with your remote ask you to register your clicker at www.iclicker.com. While you are welcome to do this, it is not necessary. It does **not** take the place of registering your clicker via Canvas.

Using your clicker

Turn your clicker on with the orange power 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. There will be a timer on the screen when the voting has begun. When your answer has been received, you will see a checkmark at the top of the clicker screen. While the timer is going, you can change your answer as many times as you want by pressing different buttons. Like all technologies, clickers sometimes malfunction. This is why I use threshold grading for clickers. **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 in Canvas *and* you need to email me with this information **before the next lecture**): your student ID number and your clicker ID.

Sometimes clickers break, and some days there is a good reason for missing lecture. **That is the reason for the threshold grading policy.** 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, check these things:

- Be sure you have registered. This means through the course site on Canvas (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 me immediately after lecture for assistance. I 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 us right away so we can resolve the problem for future lectures.

Educational research and this class

I and my colleagues do research on how students learn biology. One way that we measure whether a particular approach was effective is to look at your work in this class. However, it is your choice whether you consent to my using your work in our research. If you do participate in the research study, that would mean that your work in this class would be added to a set of data that we can

analyze after the class ends. Your name and other personally identifiable information would be removed from the work before we analyze it. Your work would be anonymous for the data analysis. Also, we do the data analysis after the class ends and all grades have been turned in. As a result, none of this analysis could affect your grade in any way.

Please read the consent form for this research, which is appended to the end of the syllabus. It is also posted in the Course Information part of the class Canvas site.

If you consent to being part of this research, you don't need to do anything.

If you do NOT consent to being part of this research, you can opt out of it. In that case, please follow the directions at the end of the consent form to opt out. There are no penalties for opting out of the study, and it will not affect your grade in any way. The opt-out information is sent to a third party who keeps it safe until after classes end and I've submitted the grades, and then they de-identify the data and remove anyone's work who has opted out.

If you have questions or concerns, please email me: sarahs@ucsd.edu.

DISCUSSION SECTION SCHEDULE (subject to change at instructor discretion)

Materials for discussion sections can be downloaded from the Canvas site.

Week	Activity
1	Get to know your class and syllabus scavenger hunt
2	Natural selection reading discussion
3	Genetic drift exercise
4	Population genetics exercise (Hardy-Weinberg equilibrium)
5	Phylogenetics exercise
6	Reading discussion
7	Reading discussion
8	Biodiversity Show and Tell
9	Reading discussion
10	Climate change activity

For discussion section times and locations, IA contact information, and office hours, see the "Discussion sections, IAs, and office hours" page on the Canvas site.

Important Dates: Wait lists end: April 7. Last day to drop without a "Withdrawal" (W) on transcript: April 22. Last day to drop with a W: May 6.

Portions of this syllabus adapted from Carolyne Kurlle.

Schedule of lecture topics (subject to change at instructor discretion):

Week 1 (March 28-April 1)

- Introduction to the class
- Introduction to evolutionary biology
- History of evolutionary thought

Week 2 (April 4-8):

- History of evolutionary thought
- Evidence of evolution

Week 3 (April 11-15):

- The genetics of populations
- Natural selection revisited

Week 3 Quiz: Open 2 PM Sunday April 17 – 2 PM Monday April 18. On Canvas.

Week 4 (April 18-22):

- Natural selection revisited
- Phylogenetic trees

Week 5 (April 25-29):

- Species and speciation

Midterm exam: During class on Friday, April 29. In person.

Week 6 (May 2-6):

- History of life on Earth
- Human evolution

Week 7 (May 9-13)

- Human evolution
- Biodiversity

Week 8 (May 16-20):

- The physical environment and the biosphere
- Population ecology

Week 9 (May 23-27):

- Population ecology (continued)
- Community ecology

Week 10 (May 30-June 3)

- Ecosystem ecology
- Climate change

(Note: no lecture on Monday May 30 because of the Memorial Day holiday.)

Final exam: June 9, 11:30 AM – 2:30 PM. In person, cumulative.

Investigating the Impact of Pedagogical Choices on University Student Learning and Engagement

Who is conducting the study, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the study?

Gabriele Wienhausen, Director of the Teaching and Learning Commons, together with her education research colleagues is conducting a research study to find out more about how pedagogical choices affect student learning and experience in the classroom. You have been asked to participate in this study because you are a student in a class that is being studied or used as a control. There will be approximately 500,000 participants in this study.

Why is this study being done?

The purpose of this study is to create knowledge that has the potential to improve the learning and educational experience of students at UC San Diego and beyond.

What will happen to you in this study and which procedures are standard of care and which are experimental?

If you agree to be in this study, the following will happen:

- Your data from this class including grades, homework and exam submissions, and survey responses will be included in the analysis to determine the effectiveness of the pedagogical techniques used in this course compared to other similar courses.

How much time will each study procedure take, what is your total time commitment, and how long will the study last?

Your participation involves only agreeing to let us use your data in our analysis. It will require no time on your part above the time you put into this course without agreeing to the study.

What risks are associated with this study?

Participation in this study may involve some added risks or discomforts. These include the following:

1. A potential for the loss of confidentiality. We will not share your personally identifying data with people outside our research team. Data will only be kept in anonymized form for research purposes. Course data will not be used for this research study until after final grades have been posted and will be rendered confidential by removing any identifiers before analysis. Your instructor will not know whether or not you are participating in this study until after final grades have been posted. Data from students who opt out of the study will be removed prior to data analysis. Research records will be kept confidential to the extent allowed by law. Research records may be reviewed by the UCSD Institutional Review Board.

Since this is an investigational study, there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

What are the alternatives to participating in this study?

The alternatives to participation in this study are not to participate. If you choose to opt-out of participating in this research study, we will exclude your data from analysis. Whether you participate will have no impact on your experience or grade in the associated class as the professor will not know who is or is not participating in the study until after final grades are assigned.

What benefits can be reasonably expected?

There is no direct benefit to you for participating in the study. The investigator, however, may learn more about how to improve student learning, and society may benefit from this knowledge.

Can you choose to not participate or withdraw from the study without penalty or loss of benefits?

Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions in an interview or on a questionnaire at any time without penalty or loss of benefits to which you are entitled. If you decide that you no longer wish to continue in this study before the end of the quarter,

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simply respond to the online opt-out form here: <https://goo.gl/forms/JSBRjEmkES6W6xYc2>. If you decide to opt out after the quarter has ended, you must contact Laurel Nelson (laureln@ucsd.edu) and give the quarter and the course from which you would like your data withdrawn.

You will be told if any important new information is found during the course of this study that may affect your wanting to continue.

Can you be withdrawn from the study without your consent?

The PI may remove you from the study without your consent if the PI feels it is in your best interest or the best interest of the study. You may also be withdrawn from the study if you do not follow the instructions given you by the study personnel.

Will you be compensated for participating in this study?

You will not be compensated for participating in this study.

Are there any costs associated with participating in this study?

There will be no cost to you for participating in this study.

Who can you call if you have questions?

Gabriele Wienhausen and/or her colleague has explained this study to you and answered your questions. If you have other questions or research-related problems, you may reach Gabriele Wienhausen at gwienhausen@ucsd.edu or (858) 534-3958.

You may call the Human Research Protections Program Office at 858-246-HRPP (858-246-4777) to inquire about your rights as a research subject or to report research-related problems.

Your Consent

If you consent to participate in this study, no action is needed. If you DO NOT consent to participate in this study, or you choose to opt-out at any time during the quarter, please submit this form online at https://docs.google.com/forms/d/e/1FAIpQLScs0Cznypp4SxQJOsFMgP9nFDjJ0zzYPISBWsip3_wiWkdjaA/vi_ewform. Your instructor will not have access to the list of students who opted out until after grades are posted. Note that you must separately opt-out of the study for each course involved in this study.

[] I am not 18 years or older or I do not consent to anonymized research use of my data from the course specified below.

Course name: _____

Course section number: _____

Term: _____

Name: _____

PID: _____