

Welcome to BILD 4 Fall 2020!

Learning in this course

BILD 4 aims to develop an understanding for research in the biology. Specifically, we will:

- Collaborate with one another to learn foundation biological concepts and skills
- Engage in research and learn to construct scientific arguments: conclusions with evidence and reasoning
- Learn about research opportunities and other resources on campus

BILD 4 is designed to be a collaborative environment for everyone to learn together and construct a shared understanding of the material. Instead of memorization, we will focus on developing an understanding of fundamental concepts and skills as they apply to different examples and learn to draw conclusions based on evidence and reasoning. We will utilize class and laboratory time to construct and apply our knowledge, troubleshoot challenging topics, practice problem solving, and develop skills in critical thinking. Assignments will challenge us to think critically about data and experiments.

Course logistics

The core learning components in this course are comprised of independent and team work on studying and completing assignments. Course materials, announcements, and other important details will be available on the Canvas (<https://coursefinder.ucsd.edu>). Please check the course website and your @ucsd email regularly.

Class Schedule

Class	Day	Time	Location	Instructor	Email
B00	Monday	5:00p-6:20p	Zoom	Stephanie Mel	smel@ucsd.edu

Sections	Day	Time	Location	Instructional assistant	Email
B01 and B02	Tuesdays	9:00a-11:50a	Zoom	Caroline Gaeta	cgaeta@ucsd.edu
				Delvin Lee	del087@ucsd.edu
				Michelle Zhang	mhz003@ucsd.edu
B03 and B04	Tuesdays	9:00a-11:50a	Zoom	Vivian Hua	vkhua@ucsd.edu
				Chongling Liu	chl020@ucsd.edu
				Andy Tran	ant083@ucsd.edu
B05 and B06	Thursdays	9:00a-11:50a	Zoom	Caroline Gaeta	cgaeta@ucsd.edu
				Delvin Lee	del087@ucsd.edu
				Michelle Zhang	mhz003@ucsd.edu
B07 and B08	Thursdays	9:00a-11:50a	Zoom	Vivian Hua	vkhua@ucsd.edu
				Chongling Liu	chl020@ucsd.edu
				Andy Tran	ant083@ucsd.edu

General Course schedule

A general outline for the course is provided below. More specific details for each week will be posted on Canvas. We may also adjust the schedule as necessary, while still focusing on learning the important concepts and laboratory skills intended for this course.

We encourage everyone to join us synchronously online to be part of real-time learning community of the course. We also understand that may not be possible for everyone. Therefore, all class sessions and laboratory sections on Zoom will be recorded and made available to students in the course asynchronously. We also encourage the use of the discussion board and chat features on Canvas for additional interactions.

Week	Topic	Due dates and quizzes
0	Introduction	
1	Introduction	
2	Beginning Basics	Quiz #1 due Sunday 10/18 at 11:59 PM
3	Beginning Basics, Research Proposal	Writing Assignment #1 due Sunday 10/25 at 11:59 PM
4	Soil Properties	Quiz #2 due Sunday 11/1 at 11:59 PM
5	Soil Properties, Research Proposal	Writing Assignment #2 due Sunday 11/8 at 11:59 PM
6	Functional Biodiversity	Quiz #3 due Sunday 11/15 at 11:59 PM
7	Functional Biodiversity, Research Proposal	Writing Assignment #3 due Sunday 11/22 at 11:59 PM
8	Genomic Biodiversity	
9	Genomic Biodiversity, Research Proposal	Quiz #4 due Sunday 12/5 at 11:59 PM
10	Genomic Biodiversity	Writing Assignment #4 due in lab section
	Final Exam (Poster Session)	Poster Session Thursday 12/17 7 PM

Me! Office hours

Office hours are after class on Monday evenings or by appointment. Please feel free to contact me for any reason.

Grading

Our course grade has the following components: contribution (10%) writing assignments (28%), quizzes (28%), final project (28%) and professionalism (2%) and extra credit (0.1%) Because different people may excel in different aspects, the highest score among writing assignment, quiz, or poster presentation will be scaled to 32%, bringing the total to 100%. There are no opportunities for extra credit beyond what is assigned.

The general grading scheme is as follows, although it may be adjusted to improve everyone's grades if necessary. Exact boundaries will be determined based on final grade distributions: Because course assessments are not perfectly precise, grade cutoffs will be identified by large gaps in between individual scores. However, our course is not graded on a curve, i.e. 20% of students getting A, B, C, and such. Thus, the ability to do well in this course is not dependent on others doing poorly.

A+	97-100%	B+	87-90%	C+	77-80%	D	60-70%
A	93-97%	B	83-87%	C	73-77%	F	0-60%
A-	90-93%	B-	80-83%	C-	70-73%		

Contribution: Active intellectual engagement and contribution throughout the quarter is essential to learning in this course. There will be a number of contribution items including pre-assignments, laboratory activities, research notebooks and data sharing. They are low-stake assignments designed to engage everyone in thinking about the course materials. Contributions will be graded on a scale 0, 0.5, and 1 for thoughtful completion and not accuracy. Because individuals may have different competing schedules, completing 90% or more of all contribution items will earn the full contribution grade. For example, if there are 20 contribution items, completing 18 or more items will result in 20/20; completing 17 items will result in 17/20.

The best way to learn how to solve problems and deepen our understanding is to work through the course materials and discuss them with fellow classmates and the instructional team. To do so, we will discover and construct an understanding together instead of directly giving answers to the problems.

Writing assignments: These assignments will focus on analyzing research data in the biological sciences, generating figures, and drawing conclusions that are supported by evidence and reasoning in the form of scientific arguments. Please see Canvas throughout the quarter for more details.

Quizzes: Quizzes will be cumulative and will focus on the most recent material. Each quiz will be in 2 phases - The first phase will be done individually and the second phase will be the same quiz done again in teams. The individual portion will count for 80% of the quiz grade, and the team portion will count for 20%. Please see Canvas throughout the quarter for more details.

Professionalism: This portion of the course grade is intended to engage everyone in considering the impact of their actions on their own learning and the learning of others in the course. Unprofessional interactions consume time yet have no meaningful benefits.

Professionalism can be demonstrated through individual (2% described in this section) and community efforts (extra credit described in the section below). The individual component is to account for demonstrating maturity and professionalism. By default, everyone is assumed to be professionally mature. Hence, this component is awarded at the beginning of the quarter. During the quarter, based on observations by the instructional team, which includes but is not limited to one-on-one interactions, electronic communication, and follow-up conversations on different correspondence, professionalism credit may be deducted.

Example interactions with meaningful benefits that:

- Developing deeper insight into course material, concepts, biology, and/or society in general
- Working collaboratively to improve in skill building and future opportunities
- Learning conceptually and meaningfully why full credit was not awarded for an assignment
- Clarifying course material that facilitates deeper learning
- Carrying out procedures safely and paying attention to waste disposal in the laboratory

Example interactions that have no meaningful benefits and thus should be avoided:

- Contributing inequitably to team work in class, in section, or on quizzes
- Being disruptive to fellow students in class, in section, or on quizzes
- Harassing and/or bullying other students or the instructional team, either in person or online
- Ignoring the directions or requests from the instructional team, especially in relation to safety
- Neglecting safety in the laboratory and not paying attention to waste disposal in the laboratory

Extra credit: The 0.1% extra credit is based on community professionalism, which can be earned by completing course evaluations and related surveys that are aimed to improve the course and the educational experiences of your future peers. If 90% or more of all students complete CAPEs, instructional assistant evaluations, and other course surveys in a mature and professional fashion (i.e. taking them seriously and providing timely and constructive feedback), 0.1% will be added to everyone in the course. Other than the community professionalism component, there are no other opportunities for extra credit beyond what is already assigned as part of the course by the instructor.

Group work: A major goal of the course is to learn to collaborate with others. Unfortunately, despite best efforts and intentions, groups do not always function optimally. Dealing with these challenges is a natural part of the learning experience. Everyone is expected to contribute fully and equitably to group work as part of the university learning community. If significant disputes occur over the relative contribution of individual members of the group, students can submit an appeal. In such cases, the group grade will be multiplied by the number of people in the group, and the points can be divided among individuals based on what each group member thinks they deserve based on their effort. To submit an appeal, all members of the group need to get together and provide the following information in a document: clear and detailed descriptions of each member's contribution, calculations for how the points should be divided among the members, and signatures from each member with a statement attesting to the fact that everyone in the group has agreed to all information in the

appeal document. Please submit the appeal to Dr. Mel at the end of a class meeting within one week of the assignment being returned.

Late or missing assignments: In general, we are unable to accept late or missing assignments because of the large size of the course. This means that no late contribution items will be accepted; completing 90% of contribution items will earn the full contribution grade. However, we acknowledge that emergencies do occur. For missed quizzes or writing assignments due to documented short-term illness or serious family emergency, please contact the course instructor as soon as possible or reasonable to do so. We are here to help you succeed in the course!

Regrades: If a grading error has been made, please submit a regrade request to the course instructor within one week of the assignments being returned. In the request, please include a concise description or explanation for the regrade request. Regrades are submitted with the understanding that the instructional team may: (1) regrade the entire assignment, and (2) compare the submitted paper to a copy of the original assignment. As a result, the overall grade may go up or down or remain the same after the regrade.

Academic integrity

Website: <https://academicintegrity.ucsd.edu/>

Integrity of scholarship is essential for an academic learning community. In this course and at the university, we expect that both students and the instructional team will honor this principle and in so doing protect the validity of our intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind. The instructional team will exercise care in planning and collaborating with students on academic work.

When people collaborate to work toward a common goal, shared values must be established so that everyone understands the acceptable ways for working together. In this course, we are using a statement of values to describe the behaviors for maintaining and protecting these values. The statement is open to discussions and possible alterations based on mutual agreements among all students and the instructional team. In collaborative work, each team should discuss these values and agree on mutual expectations.

The following course statement of values is adapted from the Academic Integrity Office:

	As students, we will ...	As the instructional team, we will ...
Honesty	<ul style="list-style-type: none"> Honestly demonstrate knowledge and abilities according to expectations Communicate without using deception, e.g. citing appropriate sources 	<ul style="list-style-type: none"> Give honest feedback Communicate honestly about expectations and standards through the syllabus and course materials
Responsibility	<ul style="list-style-type: none"> Complete assignments on time Be on time and fully contribute to team learning and activities 	<ul style="list-style-type: none"> Give timely feedback Be on time and mentally present Create relevant activities for learning
Respect	<ul style="list-style-type: none"> Speak openly with one another while respecting diverse perspectives Provide sufficient space for others 	<ul style="list-style-type: none"> Respect different perspectives Help facilitate respectful exchanges
Fairness	<ul style="list-style-type: none"> Contribute fully and equally to collaborative work Not seek unfair advantage 	<ul style="list-style-type: none"> Create fair assignments and exams and grade them in a fair and timely manner Treat all students and teams equally
Trustworthiness	<ul style="list-style-type: none"> Focus on relevant work while in class Not distribute course materials to others in an unauthorized fashion 	<ul style="list-style-type: none"> Be available to all students when we say we will be Follow through on our promises

<p>Courage</p>	<ul style="list-style-type: none"> • Say or do something when we see actions that undermine these values • Accept consequences for upholding and protecting the above values 	<ul style="list-style-type: none"> • Say or do something when we see actions that undermine these values • Accept consequences for upholding and protecting the above values
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All course materials are the property of the instructor, the course, and University of California San Diego and may not be posted online, submitted to private or public repositories, or distributed to unauthorized people outside of the course. Any suspected instances of a breach of academic integrity will be reported to the Academic Integrity Office for review.

Principles of community | Website: <https://ucsd.edu/about/principles.html>

Our campus 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. 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, we strive 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. Faculty, staff, and students are expected to practice these basic principles as individuals and in groups.

Accessibility and inclusion | Website: <http://disabilities.ucsd.edu> | Contact: osd@ucsd.edu

Any student with a disability is welcome to contact us early in the quarter to work out reasonable accommodations to support their academic success. Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD). Students are required to discuss accommodation arrangements with the instructor and OSD liaisons in the program in advance of any exams or assignments.

Whenever possible, we will use universal designs that are inclusive. For example, colors used in this syllabus are distinguishable by most colorblind and non-colorblind people, and this font is designed to be dyslexic friendly. If you have feedback on how to make the course more accessible and inclusive, please get in touch!

Discrimination and harassment | Website: <http://ophd.ucsd.edu> | Contact: ophd@ucsd.edu

The Office for the Prevention of Harassment & Discrimination (OPHD) provides assistance to students, faculty, and staff regarding reports of bias, harassment, and discrimination. The mission of OPHD is to educate the entire UC San Diego community about these issues and to assist with the prevention and resolution of these issues in a fair and responsible manner. In collaboration with other UC San Diego resources, OPHD promotes an environment in which all members of the UC San Diego community can work, learn and live in an atmosphere free from all forms of bias, harassment and discrimination.

Students may feel more comfortable discussing their particular concern with a trusted employee, such as a student affairs staff member, faculty member, department chair, or other university official. These individuals have an obligation to report incidents of sexual violence and sexual harassment to OPHD. This does not necessarily mean that a formal complaint will be filed. If you find yourself in an uncomfortable situation, ask for help. Our campus is committed to upholding policies regarding discrimination and harassment.

Campus Resources

Academic support

<p>Academic integrity</p>	<p>Policy and strategies to excel with integrity</p>
<p>Geisel Library</p>	<p>Research tools and eReserves</p>

Learning strategies	Metacognitive support to address learning challenges
Library guide for BILD 4	Starting point for navigating campus library resources
OASIS	Support for intellectual and personal development
REAL Portal	Internships and other hands-on experiential learning opportunities
Remote learning	Preparing to learn remotely
Student Success Coaching	Peer mentor program with information, resources, and support
Technical support	Assistance with accounts, network, and technical issues
Writing Hub	Peer writing mentors and support to improve writing skills

Student resources

Basic needs	Access to food, housing, and financial resources
Counseling and Psychological Services (CAPS)	Confidential counseling, consultations for psychiatric services, and mental health programming
Community centers	Programs for students and resources toward a socially just campus
Equity, diversity, and inclusion	Toward a campus climate of respect, fairness, and cooperation
Office for Students with Disabilities (OSD)	Support for students with disabilities, including accessibility resources and reasonable accommodations
Triton Concern Line	Support for students of concern at (858) 246-1111