

BILD 1: The Cell

UC San Diego – Winter 2022

Welcome to BILD 1!

BILD 1 is an introduction to the **structure and function of cells**, both in organisms like bacteria and in organisms like us. There are no prerequisites, although basic knowledge of chemistry will be helpful.

While we will start this section of BILD 1 with remote lectures, we hope to return to live lectures as soon as possible. We know from extensive educational research that **people from all sorts of backgrounds learn best** when they are **actively engaging with the material through thinking, writing, and discussing**.¹ While we will do our best to facilitate that kind of engagement online, we would like to foster that kind of classroom through encouraging regular in-person attendance when we return to in-person instruction.

In addition, we know from educational research that **courses with lots of low-stakes opportunities to explore ideas and get feedback** are generally better for student learning. Therefore, in addition to lectures, we will provide many opportunities for you to think about biology in low-stakes ways. These include **pre-lecture journal assignments, post-lecture discussion section problem sets, and post-lecture weekly quizzes**. You will be able to take the quizzes up to 3 times to get feedback on whether you understood the lecture concepts.

We will also give you many opportunities to **connect with the teaching team and your fellow students**. These include **office hours** by the professor and the IAs and **discussion sections**. If you cannot make those, there will be a **discussion board on Piazza** (www.piazza.com, or linked through Canvas) where you can ask questions of your fellow students, the IAs, and the professor. Finally, the post-lecture comprehension quizzes **will also ask for your feedback for the teaching team**. All of these (except the post-lecture weekly quizzes) will be **optional but highly encouraged**.

As the quarter progresses, we will use your feedback to adjust the course. Please bear with us as we face this challenge together!

¹ Freeman *et al.* 2014. Active learning increases student performance in science, engineering, and mathematics. <http://www.pnas.org/content/111/23/8410> ; Theobald *et al.* 2020. Active learning narrows achievement gaps for under-represented students in undergraduate science, technology, engineering, and math.

<https://www.pnas.org/content/117/12/6476>

² Eddy and Hogan. 2017. Getting Under the Hood: How and for Whom Does Increasing Course Structure Work? *CBE-Life Sciences Education*. 13(3): 361. <https://www.lifescied.org/doi/full/10.1187/cbe.14-03-0050>

How a typical week may look for you: connecting with biology every day

Day	Attend or Watch	Do
Monday	Monday's lecture	Work on problem set questions for discussion section.
Tuesday	Discussion section (some students)	Do pre-lecture Biologist journal for Wednesday's lecture
Wednesday	Discussion section (some students) Wednesday's lecture	Go to office hours. Ask a question and get a confusion clarified.
Thursday		Do pre-lecture Biologist journal for Friday's lecture
Friday	Friday's lecture	Revise and submit writing assignment
Weekend		Complete weekly quiz on Canvas. Get one question wrong, so immediately re-take it for full credit.

The Basics: Where to Find Lectures, Office Hours, and the Discussion Board

When and where are the lectures?

- **During remote instruction:** Posted asynchronously in the Canvas **Media Gallery**
- **In-person: B00 section: MWF 3-3:50pm** in the York 2622; **C00 section: MWF 4-4:50pm** in York 2722

Where are the lecture slides and podcast?

- **Slides** will be posted in the Modules on the Canvas site for BILD 1 (go to <https://canvas.ucsd.edu/>).
- A **podcast** of live lectures are in the **Media Gallery** and at <https://podcast.ucsd.edu/>

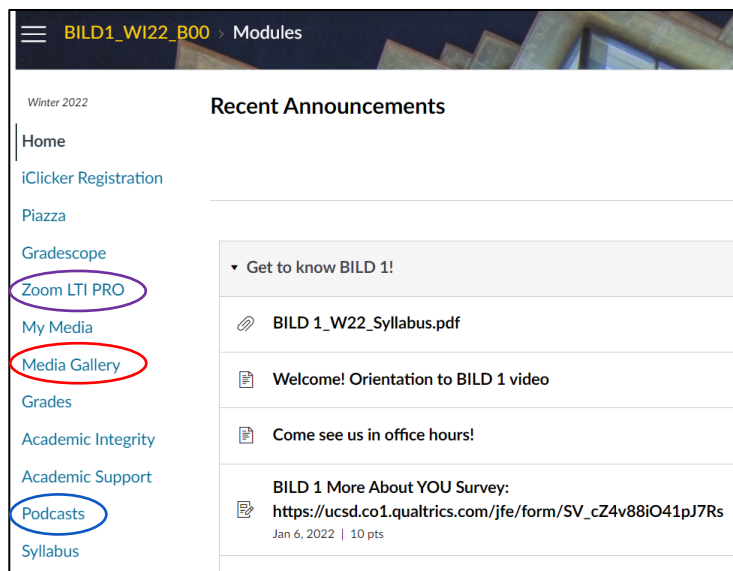
Where are professor's office hours?

- **Zoom office hours:** Go to the “**Zoom LTI Pro**” link on the side and click on the tab “**Upcoming Meetings.**” You can see the office hours for Prof. Owens.
- **In-person office hours (when permitted):** in the Revelle study tents.

Where are the discussion sections? You may attend any discussion section. There is also an asynchronous option. Sections start Week 1.

- **Online:** Linked through the “**Zoom LTI Pro**” link. at the times below.
- **In-person:** They are in person in the rooms listed below.

Where is the discussion board? This term we will be using Piazza, on Canvas or at www.piazza.com.



The Basics: Where and When to Find the BILD 1 Teaching Team

Section times: **All sections will be on Zoom until the resumption of in-person instruction.**

Section	Day and Time	In-person location	IA	IA Email
B01	Tu 7:00p-7:50p	Zoom	Kaitlin Kramer	kkramer@ucsd.edu
B02	Tu 8:00p-8:50p	Zoom	Dawei Tang	dtang@ucsd.edu
B03	Tu 10:00a-10:50a	Zoom	Yanny Jiang	yaj002@ucsd.edu
B04	W 1:00p-1:50p	CENTR 203	John Villalpando	jvillalp@ucsd.edu
B05	W 4:00p-4:50p	CENTR 203 (non-exam weeks) Zoom (exam weeks)	Zach Manalo	zmanalo@ucsd.edu
B06	W 12:00p-12:50p	APM 2301	Devon Gaur	dgaur@ucsd.edu
C01	Tu 2:00p-2:50pm	CENTR 217B	Angel Rivera	alrivera@ucsd.edu
C02	Tu 3:00p-3:50p	Zoom	Clara Baek	cmbaek@ucsd.edu
C03	Tu 4:00p-4:50p	Zoom	Monika Edejer	medejer@ucsd.edu
C04	W 8:00p-8:50p	CENTR 203	Elizabeth Estevez	eeestevez@ucsd.edu
C05	W 8:00a-8:50a	Zoom	Amanda Wacker	awacker@ucsd.edu
C06	W 7:00p-7:50p	Zoom	Amy Songvilay	asongvil@ucsd.edu
C07	Tu 8:00p-8:50p	Zoom	Davey Feng	cfeng@ucsd.edu
C08	W 5:00p-5:50p	SOLIS 110	Meghan Rossi	mjrossi@ucsd.edu
C09	W 6:00p-6:50p	SOLIS 110	Meghan Rossi	mjrossi@ucsd.edu

C10	W 9:00a-9:50a	Zoom	Amanda Wacker	awacker@ucsd.edu
C11	W 11:00a-11:50a	Zoom	Heidi Nam	y6nam@ucsd.edu

Office hours and contact information: You are encouraged to go to anyone's office hours. As you can see, we have office hours every day at a variety of times! If these times do not work for you, you may also contact us with your availability for a different time.

Note: All office hours will be on Zoom until the resumption of in-person instruction.

Name	Role	Office hour time	In-person location
Melinda Owens	Assistant Teaching Professor Div. of Biological Sciences	M 1:30-2:30pm TuTh 2-3pm	Revelle study tents Zoom
Amanda Wacker	IA, 2 nd yr PhD student, Kosuri lab, studying DNA origami	W 10:00-11:00am	Zoom
Amy Songvilay	IA, 4 th yr, Human Biology	F 2:30-3:30pm (non-exam weeks) T 12:30-1:30pm (exam weeks)	Zoom
Angel Rivera	IA, 4 th yr, Human Biology & Global Health	Tu 3:30-4:30pm	Art of Espresso
Clara Baek	IA, 4 th yr, Human Biology	Th 7:00-8:00pm	Zoom
Davey Feng	IA, 3 rd yr, General Biology	W 1:00-2:00pm	Zoom
Dawei Tang	IA, 3 rd yr, Neurobiology	F 5:00-6:00pm	Zoom
Devon Gaur	IA, 4 th yr, General Biology	Sun 2:00-3:00pm	Zoom
Elizabeth Estevez	IA, 3 rd yr, Human Biology	Tu 1:00-2:00pm	Zoom
Heidi Nam	IA, 2 nd yr, Neurobiology	F 11:30-12:30pm	Lounge next to Wolftown at Sixth
John Villalpando	IA, 3 rd yr, Ecology, Behavior, and Evolution	Tu 5:00-6:00pm	Fireside Lounge (Marshall College)
Kaitlin Kramer	IA, 3 rd yr, General Biology	W 7:00-8:00pm	Zoom
Meghan Rossi	IA, 4 th yr PhD student, Daneman lab, studying neuroscience	W 2:00-3:00pm	Art of Espresso
Monika Edejer	IA, 3 rd yr, Biochemistry	M 7:30-8:30pm	Zoom
Yanny Jiang	IA, 4 th yr, Human Biology	Tu 9:00-10:00am	Zoom
Zach Manalo	IA, 4 th yr, Human Biology	Th 1:00-2:00pm	ERC I-House Study Rooms

Required and Optional Materials

Required materials: - iClicker or iClicker2. *It must be registered on Canvas.* See more details below.

Optional materials: - *Campbell Biology* (8th, 9th, 10th, or 11th editions).

Lecture slides and all required course readings will be posted on the class website. Many students find the textbook *Campbell Biology* or the associated online resource *Mastering Biology* useful, but they are not mandatory.

What will we learn in BILD 1?

BILD 1 is an introduction to the **structure and function of cells**, both in organisms like bacteria and in organisms like us. We will study the **biological molecules** present in cells, how cells obtain **energy**, and how these organisms **pass information on to the next generation**. In other words, we will deepen our

understanding of the essential functions of living things by exploring the physical structures and biological principles that underlie the fundamental unit of all living organisms, the cell.

Overall Philosophy

We believe that **learning about biology is inherently empowering**. Your biology coursework should not only be a means to an end like a certain degree or profession. The knowledge you learn should also allow you to **understand situations that might arise in your life** and aid you in **helping the people in your family and community thrive**. In practice, what that means is that we will teach you the basic content knowledge about the physiology of people and other organisms, but then will we ask you to **go beyond memorization to deeply understand** the material and **apply knowledge to new examples**. For example, when we talk about cancer, we might use skin cancer as an example in a problem set but ask you to apply the concepts to liver cancer on an exam. That way, if someone in your life develops breast cancer, you will ideally already have had practice integrating the fundamental concepts you learned in BILD 1 with information about a particular cancer, which will hopefully allow you to better help them understand their disease and treatment.

We also believe that **everyone can learn biology and be a biology person** and that students are often the best resources in **helping each other grow**. Therefore, we have built in many places where you will engage with your fellow students **as a community of biologists**. Some of you might find such engagement difficult at first. However, it becomes easier with practice. Also, if you go on to have a career that involves biology in some way, for example as a researcher, healthcare professional, or educator, you will spend a great deal of your time communicating about that biology. Through interacting with each other verbally and in writing, you can practice the communication and leadership skills you will need in such careers. You will get further opportunities to practice articulating your thoughts about biology in writing through numerous writing assignments, but low-stakes and high-stakes.

High-level Learning Goals

We anticipate that you will learn many different things in BILD 1! Because of the way we have designed the course, we anticipate that what you will be able to do by the end of the quarter includes, but is not limited to, the following:

- **Demonstrate an understanding of the structure and function of cells**, especially cells in organisms like humans, and how **information is transmitted from generation to generation**.
- **Predict how a change** in a molecule, structure, or cell (like through a disease or experimental manipulation) **will affect its function** and the function of the cell as a whole.
- **Develop critical thinking skills** to be able to think like a biologist and **solve biologically-relevant problems**.
- **Develop scientific writing skills** to be able to explain your knowledge clearly in a paragraph form to peers.
- **Increase your understanding of your own learning (metacognition)**, including recognizing what topics are easy or difficult for you to learn, learning what study strategies work best for you, and seeking help from instructors and colleagues at appropriate times.

All questions on exams, as well as nearly all questions on homework and in-class and in-section activities, will be tied to at least one of these overall learning outcomes.

At the beginning of each unit, we will also provide you with specific biology-related learning outcomes to guide your learning of that material. The problems on the exams will be tied to those specific learning outcomes.

Grading

The activities, requirements, and assignments that comprise this course are designed to **promote your learning and the behaviors that tend to lead to learning**. In addition, these assignments (particularly the Biologist Journal assignments and weekly quizzes) give us valuable information that allows us to adjust the course to better meet your educational needs.

How Your Letter Grade will be Assigned

Grade assignments will be based on the percentage of total points earned. Numeric grades are rounded to the nearest integer before assigning a letter grade. We do not decide your grade, but rather **you as a student do the work to earn your grade**.

%	Grade	%	Grade	%	Grade	%	Grade
>98	A+	87-89	B+	77-79	C+	60-69	D
93-97	A	83-86	B	73-76	C	0-59	F
90-92	A-	80-82	B-	70-72	C-		

How Your Grade will be Calculated

Course Component	Total Points	~% of Grade
Lecture Participation	280	22%
Lecture attendance, online weeks (9 @ 5 points each)	45	
Lecture attendance, in-person weeks (9 @ 5 points each)	45	
More About You survey	10	
Pre-lecture Biologist Journals (14 @ 5 points each)	70	
Weekly Quizzes (9 @ 10 points each)	90	
Final Reflection	20	
Section Participation	90	7%
Section participation OR alternate activity (9 @ 10 points)	90	
Writing Assignments	150	12%
Highest scoring writing assignment	50	
Next highest scoring writing assignment	50	
Third highest scoring writing assignment	50	
Exams	720	57%
Highest scoring midterm	120	
Next highest scoring midterm	120	
Third highest scoring midterm	120	
Final exam	360	
Professionalism	20	2%
TOTAL	1260	100%

Grades will be posted regularly on Canvas.

A note on re-grading

We are always happy to communicate with you **to discuss your learning**. If you believe that a grading error has been made, please contact your IA with an explanation of the error. **If you think your work deserves more points**, please include in your explanation a concise description of how your answer compares to the rubric or answer key and why you think it should have earned more points.

Explanation of Course Components

With all these assignments, the course may seem like a lot of work, but we believe that each of the course components is important for **supporting your learning** and structuring your studying. If it becomes apparent that this is not the case for the majority of students, we reserve the right to alter the course structure to better support you and your learning.

Lectures

As stated above, **active participation in lecture is important for your learning**. However, we know that not all people can make it to the in-person lectures. Therefore, for every lecture, you can choose one of two options to get lecture participation credit: **attending in-person lectures** or **completing a Lecture Alternate Assignment**.

You can miss up to 3 lectures (in-person or Lecture Alternate Assignments) and still receive full Lecture Participation points. ***If you believe that you might have a situation or condition that will cause you to miss more than 1 week of lecture, please contact us right away, so we can strategize about accommodations.***

In-person lectures

To encourage discussion and reflection, every day we meet, we will engage in in-class activities and use **iClickers**. iClicker usage is how we measure lecture participation for points.

For your iClicker to correctly be associated with your name, **you must register your clicker on Canvas** (not the iClicker website). You can use a used iClicker or share an iClicker with someone in another class, but you cannot share with someone else who is also in this class. Please be aware that it is dishonest and does not represent your learning if someone else uses your iClicker in class when you are not there, so in that situation we cannot give participation points to you or the person using your iClicker.

If you are sick, please stay home. We would like to incentivize in-person attendance to encourage robust discussion, but not at the expense of health and safety. **If you are sick, please do the Lecture Alternate Assignment** or use one of your dropped lectures.

In-person lectures

If you cannot attend lecture in-person, please complete the **Lecture Alternate Assignment** for the day. You will turn it in on Canvas, under an assignment that will be added to that week's Module after the lecture is given.

The Lecture Alternate Assignment is intended to replicate some of the engagement and reflection activities we do in class. You will watch the podcast and do three things:

- For each clicker or discussion question asked in class, you will write down your initial response.

- Then, if an answer is given in class, you will reflect on how your initial response does or does not match the answer given.
- Finally, you will finish by writing down your muddiest point from that lecture.

Lecture Alternate Assignments will be due the Friday after that lecture. In other words, the Lecture Alternate Assignments for Monday and Wednesday lectures will be due the Friday of that week. The Lecture Alternate Assignments for Friday lectures will be due the following Friday. Hopefully, that will give you plenty of time to watch the podcast and complete the assignment.

Online lectures

If an in-person lecture is shifted to online for everyone, everyone will receive full credit for that day.

Online lectures will be **asynchronous** to give you flexibility in your schedule and in recognition of technical issues like poor Wifi. We will record and post lectures early in the week that they are supposed to be watched.

During lectures, I will pose questions to you in the form of **video quizzes**. **Video quizzes are not graded**; they are purely to help you engage with the lecture material. Trying to answer the question before you hear the answer will help you check your own knowledge and better remember the material. That is true even if- actually *especially* if- you realize you do not know the answer.

Lectures were online from weeks 1-5. In that time, there were 9 lectures a student could originally have been given points for. (Lectures with points started in week 2, and there were 2 exams and 1 holiday during this period.) Therefore, everyone got 45 lecture attendance points.

Pre-lecture Biologist Journals

Several times a week, there will be an assignment called a **Biologist Journal** posted on Canvas. The main purpose of these assignments is to **prepare you for class** by allow you to **reflect on what you already know**, do some **pre-reading**, and **connect the material to the real world**. We on the teaching team also read them to better understand what our students know and think about the topic beforehand to adjust our teaching.

Each Biologist Journal is different, but each one involves **writing to a specific prompt**. They are **graded solely on being turned in on time and for meeting the word count** by writing on topic, **not for correctness** or writing style. That is because Journals are about your *pre-class ideas*, so we do not penalize you if the words are awkward or if the ideas are not correct. Reading more about the topic online is a great idea, but ultimately, the Journals are about **exploring your own ideas and thoughts about the topic**. So, we expect you to **use your own words when writing these Journals**. (Please see the section on Academic Integrity for more about that.)

Biologist Journal prompts will be posted on Canvas at least several days before they are due. If they require you to read an outside paper that is not publicly available, it will be posted above the Journal prompt. Due dates are on Canvas and the schedule at the end of this syllabus.

You can submit 85% of Biologist Journals (14/16) and still receive full credit, as the lowest two Journal scores are dropped.

Post-lecture Weekly Quizzes

At the beginning of the next week, there will be a **post-lecture weekly quiz posted on Canvas** that covers the material from that week to help you check your understanding. It will be multiple-choice. Some of the questions on the quiz will be fairly basic to make sure that you understood the basic ideas from the lecture. Other will be exam-level questions that test application of fundamental knowledge. Quizzes will be graded on correctness, but we will allow you **3 attempts** to get full credit. After each attempt, we will give feedback on incorrect answers.

In addition, we will ask one or two optional ungraded open-ended questions that allow you to give feedback to us about your experiences in the course.

Quizzes will be due every week on Canvas. Due dates are on Canvas and the schedule at the end of this syllabus.

Completion of at least 85% of quizzes (9/10) will give you full credit, as the lowest quiz score will be dropped.

Writing assignments

Writing about biology not only helps you develop professional communication skills; it also has been shown to help you learn the material. Therefore, we will have **four short writing assignments** (roughly 4-6 sentences in length) that will be similar to exam free response questions that focus on concepts that have been tricky for students in the past.

Peer review is an important part of the process of scientific writing, and both giving and receiving peer feedback can help you learn. Therefore, for each writing assignment, you will turn in a draft as part of a Biologist Journal and give peer feedback on other student's drafts in discussion section. Then, you will revise your own draft according to what you have learned from the class, the process of peer review, and your peer feedback.

The final writing assignments will be graded for correctness. You will turn them in using the website Gradescope. Due dates are on Canvas and the schedule at the end of this syllabus.

Your lowest Writing Assignment score (1 of 4) will be dropped.

Final Reflection

A final reflection on your experiences in this course is due at the end of the quarter on Canvas on the **Sunday night after finals week at 11:50pm**. The prompt for this reflection will be: "What did you learn in BILD 1 that will continue to influence you for many years to come? How did you learn these things?"

Section Attendance Credit

Weekly discussion sections are designed to **engage you in applying your knowledge and** exercising your skills in **collaborative problem solving**. Some sections will be held in-person, and some will be held online unless the campus is doing all-remote instruction; in that case, they will be on Zoom. Most weeks, we will have a **problem set** with questions that are at the level of exam questions (and are often from previous years' exams). Problem sets will be posted several days before section. **Everyone should try to complete the problem set** before section, for your own learning. In addition, some weeks, we will be conducting **peer reviews** of each other's writing assignments (for more information, see the section "Writing Assignments" above).

To promote collaboration and community, we highly encourage everyone to attend section (either in-person or online) each week. However, we acknowledge that not everyone might be able to attend section in a given week. Therefore, each week, there are two options for getting section participation credit:

- **Attend and participate in section:** You may attend **any section** from either the B00 or C00 lecture sections. In section, you will work with others to collaboratively explain and understand the problem set and conduct peer reviews.
- **Complete an alternate written assignment:** If you cannot attend any section, you can request and complete an alternate written assignment that will also take about an hour. Generally, you will not only have to complete the problem set, you will also have to compare your original responses against the answer key and reflect on your learning process. We reserve the right to grade the alternate written assignment for correctness.

Each week, you can decide whether to attend section or to complete the alternate written assignment, depending on your schedule that week. If you choose to do the alternate written assignment, due dates are posted on Canvas. Getting section credit, either through attendance or doing the alternate assignment, at least 85% of the weeks (9/10) will award you full section participation credit, as the lowest score is dropped.

Exams

To facilitate developing useful knowledge and skills for the long term, tests in this course will focus on **applying knowledge to assess and solve novel problems**. Questions will be multiple choice and short answer. Any material covered in or closely related to each lesson's learning objectives may be tested.

All exams are cumulative (except the first midterm) to promote long-term retention of knowledge. If you want to remember this material years from now in your career, you certainly want to remember it until the end of the term.

There will be 5 exams in this course, 4 during the term and 1 during Finals week. Midterms are around 50min long, and the Final Exam is 3 hours long. The dates for the exams are on Canvas and in the Course Schedule in the back of this syllabus. **If you need to miss an exam date, please let us know as soon as is reasonable, and we will arrange for a make-up.**

Your lowest midterm grade will be dropped automatically. If you miss one of the midterms, that will be the midterm dropped. However, the Final Exam is worth three times as many points as a midterm because it is three times the length of a midterm. Therefore, **everyone must take the final exam; it cannot be dropped.**

All exams will be given online. They will be administered on the website Gradescope. You will type your answers directly onto the Gradescope website. Online exams will be **open-book, open-notes, and open-Internet**. That means that the answers to most exam questions will not be found by Googling. Also, you still should study! Most students find that it works best to use their time during the exam to carefully read the questions and use their own understanding to craft responses, with referring to notes or Google only for confirming details.

For midterms, you will be able to start the exam any time between 3pm-4:10pm, but you will only have 50min from when you start the exam. We expect most students to take the exam during their usual class time. If the Final Exam is online, it will be available from 3-6pm on the two dates listed in the course schedule. You may attend either offering.

Professionalism

This portion of the course grade is intended to motivate you to **consider the impact of your actions on your own learning and the learning of others** in the course. Unprofessional interactions consume time yet have no meaningful benefits to you, your fellow students, or the teaching team. If you act unprofessionally in class or at work, your colleagues, instructors, and supervisors may discount you and not invite you for new opportunities that you may or may not be aware of. Professionalism can be demonstrated through individual (described here) and community efforts (described below). The individual component is to account for you personally demonstrating maturity and professionalism.

By default, we assume everyone is professional, so this component is automatically awarded to you at the beginning of the quarter. During the quarter, based on observations by the teaching team, including but not limited to one-on-one interactions, electronic communication, and follow-up conversations on grades, **your professionalism credit may be deducted** in steps of 5pts.

Examples of professional interactions with meaningful benefits:

- Working collaboratively to improve in building knowledge and skills
- Asking questions about course policies or course material to clarify it and facilitate learning
- Clarifying how a response was incomplete or incorrect in order to learn how to correct one's own ideas
- Reporting errors or issues in class, on assignments, or in other course material
- Respectfully giving feedback about the course
- Treating everyone in the class community, including the instructional team and other students, with respect

Examples of unprofessional interactions that have no meaningful benefits and thus should be avoided:

- Contributing inequitably to team work in class or in discussion section
- Ignoring directions or requests from the instructional team
- Ignoring safety guidelines, such as taking off one's mask during class
- Asking for course credit when such credit would conflict with stated course policies (such as the policy on late assignments), when it would be applied inequitably (such as just for you), or when the instructor has explained that the answer did not earn such credit
- Harassing or bullying the instructional team or other students
- Being disruptive to fellow students in lecture, online, in discussion section, or during exams

Extra Credit Opportunities

You will have several opportunities for extra credit. Extra credit questions will be offered on each exam to make up for exam points missed. In addition, there are several other opportunities for extra credit:

- 10 points for **meeting with Prof. Owens or an IA during office hours** or another meeting. If the office hours times do not work for you, email us and let us know what times work for you!
- 5 points each for 2 opportunities to **do a Division of Biological Sciences learning survey**. One of these opportunities will be available in the first week of the term, and the other will be available in the last week. More information will be available on Canvas.
- 10 points for **community professionalism**. This can be earned by completing course evaluations and related surveys. If 90% or more of all students complete all CAPEs and other course evaluation surveys in a mature and professional fashion (taking them seriously and providing timely and constructive feedback), 10 points will be awarded to everyone in the course.

Other opportunities may occur as necessary. Extra credit opportunities are always made available to the entire class, never to just one student.

Late Policy

Because of the size of this class and the fast pace of the material, **we cannot award full points for assignments, quizzes, exams, or anything else submitted late** without our prior arrangement. Late assignments will be given half-credit for one day after the due date, and after that they will be given no credit.

Remember that in nearly all cases, you can drop one or two assignments without any impact on your score. For example, you can drop 2 Biologist Journals, 1 Weekly Quiz, 1 Discussion Section Credit, 1 Writing Assignment, and 1 Midterm. That means if you happen to miss one or turn it in late, or your life is too busy a certain week, it will not negatively impact your course score. Even if you miss the deadline for an assignment, we still highly recommend doing the work to prepare for class and exams.

Exception: **if you have a situation that would require you to miss substantial numbers of assignments, please reach out to us as soon as possible** so we can discuss accommodations.

BILD 1 Class Culture

BILD 1 is a **community of scientists** trying to increase their understanding of the biological world. The classroom culture is designed to engage you in collaborating and thinking like a scientist. It is important for us to make sure that how we teach this course and how we accommodate different student needs reflects the differences of race, ability, sexual orientation, age, and gender identity that enrich our classroom experience and campus.

When people collaborate to work towards a common goal, in this case building our learning in BILD 1, we must **establish shared values** so that everyone understands acceptable ways of working together. We abide by the **UCSD Principles of Community**:

- We reject acts of discrimination
- We affirm the right to freedom within the bounds of respect, courtesy, confidentiality, and sensitivity.
- We support and promote a community in which all people can work and learn together in an atmosphere free of demeaning or abusive treatment.

In addition, we have additional values outlined in the following statement that explicitly state our values and describe the behaviors that maintain and protect these values. This statement has been adapted from the International Center for Academic Integrity and Dr. Tricia Bertram Gallant.

	As students we will...	As the teaching team we will...
Honesty	<ul style="list-style-type: none"> • Honestly demonstrate your knowledge and abilities according to expectations listed in the syllabus or in relation to specific assignments and exams • Communicate openly without using deception, including citing appropriate sources 	<ul style="list-style-type: none"> • Give you honest feedback on your demonstration of knowledge and abilities on assignments and exams • Communicate openly and honestly about the expectations and standards of the course through the syllabus and in relation to assignments and exams
Responsibility	<ul style="list-style-type: none"> • Complete assignments on time and in full preparation for class • Participate fully and contribute to team learning and activities • Take ownership of your own learning by using course and outside resources, 	<ul style="list-style-type: none"> • Give you timely feedback on your assignments and exams • Show up to office hours and class on time and be mentally and physically present

	including the BILD2 team, to clarify confusions and extend your knowledge	<ul style="list-style-type: none"> • Create relevant assessments and class activities • Providing selected resources and a helpful environment to help you address your confusions and extend your knowledge
Respect	<ul style="list-style-type: none"> • Speak openly with one another while respecting diverse viewpoints and perspectives • Provide sufficient space for others to voice their ideas 	<ul style="list-style-type: none"> • Respect your perspectives even while we challenge you to think more deeply and critically • Help facilitate respectful exchange of ideas
Fairness	<ul style="list-style-type: none"> • Contribute fully and equally to collaborative work, so that we are not freeloading off of others on our teams • Not seek unfair advantage over fellow students in the course 	<ul style="list-style-type: none"> • Create fair assignments and exams and grade them in a fair and timely manner • Treat all students and collaborative teams equitably
Trustworthiness	<ul style="list-style-type: none"> • Be open and transparent about what we are doing 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 • Not modify the expectations or standards without communicating with everyone in the course
Courage	<ul style="list-style-type: none"> • Say or do something when we see actions that undermine any of the above values • Accept the consequences of upholding and protecting the above values 	<ul style="list-style-type: none"> • Say or do something when we see actions that undermine any of the above values • Accept the consequences of upholding and protecting the above values

If you have any concerns about what you will experience in this course, please contact us.

Course Policies

Students with Disabilities

If you have a disability, **including mental health issues** such as anxiety and depression, that might affect your attendance or performance in this course, please contact us early in the quarter to work out reasonable accommodations to support your success. To ensure fairness and proper support, anyone who requests accommodations because of a disability must get a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD). To contact OSD, use the student portal: <https://academicaffairs.ucsd.edu/sso/osdsp/home>, email the Biology OSD liaison at bioosd@ucsd.edu, or call 858-534-4382. The Office for Students with Disabilities will be open, particularly by email.

Whenever possible, we strive to use universal designs that are inclusive. If you have feedback on how to make the class more accessible and inclusive, please get in touch!

Podcasts and Lecture Recording

Whenever possible, **classes will be recorded and made available online** as a resource for learning (<http://podcast.ucsd.edu> and linked on Canvas). However, remember that active participation and contribution are highly encouraged, and many important concepts and ideas will be developed collaboratively by doing in-class activities that cannot be replicated by watching a video.

Supplemental Instruction (SI)

The Teaching and Learning Commons supports your learning in BILD 1 through hosting SI study sessions, which give extra practice with the material through doing group problem-solving. This term, your SI leader is Ava Bayley (abayley@ucsd.edu). You should have been given access to a Canvas course specifically for BILD 1 SI, linked here: <https://canvas.ucsd.edu/courses/31990>. (If you did not receive that information, please email aah@ucsd.edu.) Information for SI study sessions can be found at <https://aah.ucsd.edu/supplemental-instruction/si-sg-schedule.html#BILD-1> and below. While we encourage you to participate in SI, participation in an SI session does not substitute for attending a regular discussion section.

Day	Time	Location
Monday	5:00-6:20pm	Zoom
Friday	12:00-1:20pm	TLC 1505 (if in-person instruction allowed)

Academic Integrity and Originality

Integrity of scholarship and learning is fundamental to creating our classroom community and the academic community at large. The University expects that both students and faculty will honor this principle and in so doing protect the validity of University intellectual work.

For you, this means that all academic work you submit for this course should be **your own new original work**. We emphasize this for several reasons. First, **using your own thoughts and putting things in your own words helps you learn**. There is no better way to discover quickly what you understand and what you don't than to explain a concept to someone else. Second, in professional settings, trying to hide dishonest behavior or pass someone else's words off as your own can lead to trouble. To encourage original thought and writing in this class, we take precautions. For example, Canvas uses Turnitin to scan Biologist Journals for plagiarized materials. **Our goal is not to catch anyone** (although we can't give credit for dishonest work or plagiarized material), **but to help everyone make a habit of using their own thoughts and voice**.

In addition, part of being a good member of a community is **not facilitating dishonest behavior by others**. No course materials, particularly homework and exams, may be posted online, submitted to private or public repositories, or distributed to unauthorized people outside of the course.

To hold everyone accountable for their actions, any serious suspected instances of a breach of academic integrity will be reported to the Academic Integrity Office for review. For more information on academic integrity, please visit <https://students.ucsd.edu/academics/academic-integrity/index.html>.

Helpful Resources at UCSD

If you are experiencing anxiety, depression, or worse, you are not alone. On top of facing the normal stresses of college, many college students are in their late teens or early twenties, which is when many mental illnesses emerge for the first time because of brain maturation. In addition, you may be experiencing the effects

of trauma or violence. Or, you might be one of the 19% of UC students who report not being able to access adequate food³ or who do not have a safe, stable place to live.

Whatever your situation, whether your problems feel big or small, we encourage you to seek help and support, either from us or from professional resources on campus. Some are listed below.

It is also important to find a community of like-minded people around you. You may be interested in the following resources: the Black Resource Center (brc.ucsd.edu), the Cross-Cultural Center (ccc.ucsd.edu), the LGBT Resource Center (lgbt.ucsd.edu), the Intertribal Resource Center (<https://itrc.ucsd.edu/>), Raza Resource Centro (raza.ucsd.edu), the APIMEDA Programs and Services page (<https://apimeda.ucsd.edu/>), the Student-Parents Resource page (students.ucsd.edu/well-being/wellness-resources/student-parents), the Student Veterans Resource Center (students.ucsd.edu/sponsor/veterans), the Undocumented Student Services page (<https://uss.ucsd.edu/>), and the Women’s Center (women.ucsd.edu).

³ Martinez *et al.* 2016. University of California Global Food Initiative: Student Food Access and Security Study. <https://www.ucop.edu/global-food-initiative/best-practices/food-access-security/student-food-access-and-security-study.pdf>

<i>Help and Resources</i>		
Academic Support	Psychology & Physical Safety*	Basic Needs
<p>OASIS (http://oasis.ucsd.edu) The Office of Academic Support & Instructional Services (OASIS) offers math and science tutorial Programs for everyone. They also have services and scholarships for those of you who have overcome significant obstacles to become successful (like being first in your families to go to college).</p> <p>Teaching + Learning Commons (http://commons.ucsd.edu) The Teaching + Learning Commons offers tutoring, consultations, and workshops on learning strategies as well as content tutoring and assistance with writing in the Writing + Critical Expression Hub.</p> <p>Student Success Coaching Program (https://successcoaching.ucsd.edu/) The Student Success Coaching Program is a peer mentor program that provides students with information, resources, and support in meeting their goals.</p>	<p>CAPS (http://caps.ucsd.edu) CAPS offers free, confidential counseling. They can help with urgent crises, such as an assault or thoughts of self-harm. They can also talk if you are worried about a friend or classmate.</p> <p>CARE at SARC http://care.ucsd.edu Campus Advocacy, Resources, and Education at the Sexual Assault Resource Center (CARE at SARC) offers support for those of you who have experienced sexual violence or violence from a partner. They have free confidential counseling, including on nights and weekends.</p> <p>OPHD https://ophd.ucsd.edu/ Students have a right to an education free from harassment and discrimination. The Office for Prevention of Harassment and Discrimination (OPHD) can help report and handle these situations.</p>	<p>Triton Food Pantry http://basicneeds.ucsd.edu/triton-food-pantry/ The Triton Food Pantry discreetly offers food for current UCSD students to ensure each of you has enough nutrition to get through the day.</p> <p>The Hub https://basicneeds.ucsd.edu The Hub serves those of you who have trouble accessing basic needs, including food or stable housing, or who have financial emergencies. They can help you connect with a variety of on- and off-campus programs, including the Food Pantry, CalFresh, emergency loans, emergency housing, or changes to your financial aid.</p>

*Please note that although we want to help you, instructors are obligated by law to notify UCSD's Title IX coordinator if a student (or any person at UCSD) discloses to us a personal experience of sexual harassment, sex or gender discrimination, domestic violence, or stalking. This is so that the University can properly address the issue. If you do not want your experiences to be reported, please contact CAPS or CARE, which can talk to you confidentially.

Class Calendar Overview

More specific information will be provided weekly on Canvas. We may adjust the schedule, assignments, and readings as necessary while still focusing on the foundational concepts listed below.

Date	Guiding Questions	All assignments due the night before at 11:50pm , unless otherwise specified
Class #1 M Jan 3	Welcome! What will we do together in BILD 1? How do I think like a biologist?	
Class #2 W Jan 5	What is life? How do we define life using structure and function?	Biologist Journal #1
Class #3 F Jan 7	How do we think across size and scale? What makes up the structure of living things?	More About You survey Biologist Journal #2
Class #4 M Jan 10	What molecules make up the structure of living things? How do their structures serve their functions?	Week 1 Lecture Quiz
Class #5 W Jan 12	What molecules make up cell membranes? How do their structures serve their functions?	Biologist Journal #3
Class #6 F Jan 14	How do substances enter or leave through lipid membranes?	Biologist Journal #4
M Jan 17	Happy Martin Luther King Jr. Day!	Week 2 Lecture Quiz
Class #7 W Jan 19	Midterm 1 (up to and including lecture 5)	
Class #8 F Jan 21	How do we know what reactions will happen inside a cell? What are enzymes?	Biologist Journal #5
Class #9 M Jan 24	How will the structure of an enzyme affect its function?	Week 3 Lecture Quiz
Class #10 W Jan 26	Where does all the matter and energy for living things come from? (Photosynthesis)	Biologist Journal #6
Class #11 F Jan 28	Where does all the matter and energy for living things come from? (Photosynthesis)	Biologist Journal #7 Writing Assignment #1 due Friday night
Class #12 M Jan 31	How do living things get matter and energy from food? (Cellular respiration)	Week 4 Lecture Quiz
Class #13 W Feb 2	Midterm 2 (up to and including lecture 11)	
Class #14 F Feb 4	How do living things get matter and energy from food? (Cellular respiration)	Biologist Journal #8
Class #15 M Feb 7	How do cells receive and act on outside signals?	Week 5 Lecture Quiz
Class #16 W Feb 9	What is the relationship between DNA, protein, and traits?	Biologist Journal #9
Class #17 F Feb 11	How are genes expressed?	Biologist Journal #10 Writing Assignment #2 due Friday night

Class #18 M Feb 14	Where do mutations come from? How do mutations cause cancer?	Week 6 Lecture Quiz
Class #19 W Feb 16	Midterm 3 (up to and including lecture 16)	
Class #20 F Feb 18	How is DNA copied? How do cells inherit mutations?	Biologist Journal #11
M Feb 21	Happy President's Day!	Week 7 Lecture Quiz
Class #21 W Feb 23	What cells in the adult body are actively dividing? How is mitosis like a copy machine?	Biologist Journal #12
Class #22 F Feb 25	How are mutations and traits passed between generations? How is meiosis like a slot machine?	Biologist Journal #13 Writing Assignment #3 due Friday night
Class #23 M Feb 28	What is the relationship between alleles and mutations? What is the relationship between genotype and phenotype?	Week 8 Lecture Quiz
Class #24 W Mar 2	Midterm 4 (up to and including lecture 22)	
Class #25 F Mar 4	How do dominant and recessive alleles contribute to traits?	Biologist Journal #14
Class #26 M Mar 7	How do dominant and recessive alleles contribute to traits?	Week 9 Lecture Quiz
Class #27 W Mar 9	How do genes interact with each other and with the environment?	Biologist Journal #15
Class #28 F Mar 11	How will you use BILD 1 in the future? How can we make BILD 1 better?	Biologist Journal #16 Writing Assignment #4 due Friday night
M Mar 14		Week 10 Lecture Quiz
W Mar 16	Final Exam for B00 section, 3-6pm (all lectures)	
F Mar 18	Final Exam for C00 section, 3-6pm (all lectures)	
Sun Mar 20	Final Reflection due at 11:50pm	