

## Welcome to BILD 1!

**Instructor: Dr. Claire Meaders** ([cmeaders@ucsd.edu](mailto:cmeaders@ucsd.edu))

**Lectures:** B00 MWF 3:00-3:50 PM, CENTR 101 | **Student hours:** Weds 4:30 PM-5:20 PM, hybrid (in person: HSS 8016; zoom: link on canvas)

Welcome to BILD 1! **As your professor, I value your health, wellbeing, and learning.** Navigating this quarter, the rest of college, and beyond successfully will require hard work and a prioritization of your mental and physical health. This quarter I will challenge you in this course to deepen your understanding and to grow as students. This is an **in-person course** - 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**.<sup>1</sup> We would like to foster that kind of classroom through encouraging regular in-person attendance. The in-person class sessions are designed to help you practice applying content, and are an opportunity to get to know the instructional team and your classmates!

We will have many opportunities for you to think about biological concepts in low-stakes ways. This includes **in-class questions** (graded on participation not correctness), **chapter homework** (with multiple attempts per question), and **weekly discussion section problem sets**. Each assignment has been selected with your learning in mind. In addition, the teaching strategies in this course will engage all of you as a community of biologists in the classroom to develop leadership and communication skills as well as support each other in understanding biological concepts.

However, this is not at the expense of your wellbeing - I have built in flexibility into the course should unforeseen circumstances occur during the quarter. Beyond physical health, I will encourage you throughout the quarter to make time for yourselves to recharge, relax, and rejuvenate yourselves with productive or 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! You will see in my grading policies that I drop at least one of each type of assignment, with the goal of your having bandwidth for days when you need them. Finally, while I imagine this quarter may have unique challenges, I will consistently encourage you to celebrate the victories you will have (both large and small!) and to enjoy these moments of college together.

As the quarter progresses, we will use your feedback to adjust the course. Any changes will be to increase flexibility, and will be made with your learning in mind.

<sup>1</sup> Freeman *et al.* 2014. <http://www.pnas.org/content/111/23/8410> ; Theobald *et al.* 2020. <https://www.pnas.org/content/117/12/6476>

## Course Information

### Course Description:

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. There are no prerequisites, but basic high school knowledge of chemistry is helpful.

This course also aspires to support you in developing basic content knowledge and skills necessary to evaluate new discoveries in the life sciences and to continue to expand your knowledge of biology throughout your life. That requires going **beyond memorization of facts** to acquire an understanding of how and why organisms function as they do, and what happens when the components of organisms do not function properly.

### Recommended schedule

*As needed (optional):*

*Supplemental instruction session for studying tricky concepts*

*Student hours for clarifying questions and to chat with the instructional team*

Day	Outside of class
Sunday	Preview textbook chapter for Monday's class
Monday (attend class!)	After class: complete chapter homework assignments (if assigned)
Tuesday	Preview chapter for Wednesday's class
Wednesday (attend class!)	After class: complete chapter homework assignments (if assigned)
Thursday	Preview chapter for Friday's class
Friday (attend class!)	After class: complete chapter homework assignments (if assigned), complete discussion section assignment (if you were unable to attend in person)

My role is to help you in this course, and I encourage you to stop by student hours! Student hours are a time when we can chat about course content, UCSD, careers in STEM, anything you want! They are especially useful if you have any confusion about a concept from lecture or lab. We also have an instructor-monitored discussion board (Piazza) through canvas for questions! If you prefer email, I'll try my best to reply within 24 hours - but please write to me from your USCD email account or through canvas, and make sure the subject is "BILD1". Thanks!

She/her/hers  
From:  
Arlington, VA



## Student hours and contact information:

- Student hours are a time when you can come ask clarifying questions about the course material or about any other topics! I encourage you to attend student hours rather than email the Instructor or the IA's for many reasons: 1) This is how we can form a richer **community** and get to know each other; 2) Two, we can **better explain the material** with whiteboards and a conversation. Also, maybe other students have a similar question and we can help each other learn; 3) **You will get a response right away in student hours**, instead of having to wait for emails
- You are encouraged to go to anyone's student hours. We have student 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.

**See canvas site for information on IA student hours**

## Discussion section times:

### Piazza:

The class piazza discussion board (on canvas) will be monitored daily for questions – please feel free to post (and answer) questions there. We are all a community learning and working together!

Section	Day, Time, Location	IA	IA email
B01	Th 7:00-7:50 PM; WLH 2115	Chloe Barber	<a href="mailto:c1barber@ucsd.edu">c1barber@ucsd.edu</a>
B02	Th 8:00-8:50 PM; WLH 2115	Emma Jacobs	<a href="mailto:e4jacobs@ucsd.edu">e4jacobs@ucsd.edu</a>
B03	F 8:00-8:50 AM; WLH 2115	Roshni Aradhya	<a href="mailto:raradhya@ucsd.edu">raradhya@ucsd.edu</a>
B04	F 12:00-12:50 PM; WLH 2115	Alejandro Ayala	<a href="mailto:a4ayala@ucsd.edu">a4ayala@ucsd.edu</a>
B05	F 2:00-2:50 PM; WLH 2115	Allen Xu	<a href="mailto:alxu@ucsd.edu">alxu@ucsd.edu</a>
B06	F 10:00-10:50 AM; Zoom	Sehee Oh	<a href="mailto:seoh@ucsd.edu">seoh@ucsd.edu</a>
B07	F 4:00-4:50 PM; WLH 2115	Jose Chacon	<a href="mailto:jgchacon@ucsd.edu">jgchacon@ucsd.edu</a>
B08	F 5:00-5:50 PM; WLH 2115	Jose Chacon	<a href="mailto:jgchacon@ucsd.edu">jgchacon@ucsd.edu</a>

## BILD 1 Supplemental Instruction

**What is SI?** Supplemental Instruction (SI) provides an opportunity for students to actively and deeply learn course content by engaging in discussion with peers enrolled in BILD 1. These groups are not meant to be tutoring or review sessions. The Leaders prepare session plans to encourage and guide students in teaching and learning with each other. **It is offered through the Academic Achievement Hub at UC San Diego, and has a separate canvas link.** The Leaders, who have previously taken the course, will provide time and opportunity to work through more complicated concepts and problems that are associated with BILD 1. SG is a peer-led study group program that targets difficult classes. There are several study sessions (per week) outside the lecture. The sessions are designed to help with understanding content and to collaborate with peers who are also taking the course. **Studies have shown that 95% of the students who attended four or more sessions earned a higher grade in their courses and overall GPA.** SI provides you with a session to explain, explore and elaborate what you know. Simultaneously, it allows you to clarify what you might struggle to understand.

## Course materials

**Required materials:** Modified mastering biology (with ebook)

*Your digital course materials are provided by the UC San Diego Bookstore through Canvas and are free for the first two weeks of class. After two weeks, your student account will be automatically charged a special reduced price unless you **opt out**. If you decide to opt out you must complete the process by **April 15th, 2023, 11:59PM PDT** and you will be responsible for sourcing the materials elsewhere. Instructions for how to opt out can be found [here](#). For any questions about billing please contact [textbooks@ucsd.edu](mailto:textbooks@ucsd.edu). For any questions about using your eBook please reference [RedShelf Solve](#).*

- We recommend **previewing** the relevant chapters before class using **active reading** (reviewing learning objectives and headers and asking questions).
- We will use Mastering Biology for chapter assignments that are designed to help you apply the material we have covered in class. These assignments will help deepening your understanding of the content and make connections between concepts. These assignments will not be due until the end of the week of the corresponding lecture, giving you flexibility to preview the questions before class.
- We will be using **Learning catalytics** (included in Mastering Biology) for in-class clicker-type questions. These questions will be graded for participation only, and are designed to help you check in with your understanding about the content.

**Lecture slides** will be posted on canvas before each lecture, within the weekly overview page in weekly modules.

**Lecture recordings** will be made available after class through <https://podcast.ucsd.edu/> (search for BILD 1).

## Learning goals

**We anticipate that you will learn many things in BILD 1! By the end of the course you should be able to:**

- Analyze how environment interacts with genotypes to produce phenotypes
- Compare & contrast how the structures and elements of prokaryotic cells, eukaryotic cells, and viruses impact how they function
- Explain patterns and mechanisms of inheritance
- Apply the central dogma to explain how genes give rise to the traits we observe in organisms
- Explain mechanisms that lead to genetic diversity including mutation and meiotic recombination
- Explain how gene expression can be modulated
- Explain the relationship between chemical structure & function of molecules such as DNA, RNA, proteins, amino acids, and lipids
- Predict how and when molecules may enter or exit cells through various pathways in the cell membranes
- Explain how cells receive and act on external chemical signals, including the stages of cell signaling and how signals are amplified
- Analyze how energy is produced and used by cells, including process such as cellular respiration and photosynthesis
- Evaluate claims based on scientific evidence and reasoning
- Use feedback from exams and assignments to adjust study strategies

***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.***

## Learning in this course

This course is designed to be an environment for everyone to learn and construct a shared understanding of the material. Educational research has shown that consistent active engagement with material through thinking, writing, and discussing helps improve how people learn<sup>1</sup>. In this course, we will encourage engagement in class by providing opportunities to troubleshoot difficult topics and practice problem solving.

We also want you to be able to apply what you learn about biology in whatever context you find yourself in your future, including in your career and your personal life. Therefore, instead of memorization, we will focus on developing an understanding of fundamental concepts as they apply to different examples. Exams will include questions that are based on solving problems in new contexts.

Research has also shown that people generally learn best in **collaborative environments**, where they learn together and construct a shared understanding of the material<sup>2</sup>. While talking and working with your colleagues, you may identify gaps in your own knowledge, exercise the communication skills that are crucial in any career, and gain skills in working with colleagues as they learn to identify their confusions, ask questions, and think critically and skeptically about biology. Therefore, **active participation** both in class and discussion section is crucial. To encourage collaboration, class and section activities will be done in groups, and grades will never be assigned on a curve.

## Course Expectations

What I expect from you	What you can expect from me
<b>Be informed.</b> Read this syllabus carefully and completely so you understand the course structure and expectations.	<b>Enthusiasm.</b> To be prepared for each class and to bring my enthusiasm for teaching to each lecture, lab, and office hour meeting.
<b>Be attuned.</b> Keep up with the lecture videos and lab assignments, as each one builds on the previous one.	<b>Responsiveness.</b> To respond to emails within 24 hours. For those that know me, you know I usually respond faster than this. Emails received on weekends may take longer.

<b>Ethical.</b> A good attitude and maintenance of honest and ethical principles towards me, your classmates, and the execution of the course. Please read UC San Diego's <a href="#">Principles of Community</a> and <a href="#">Conduct Code</a> .	<b>Timely feedback.</b> To make every effort to return graded assignments within one week of the submission date and to post solutions or code as soon as is reasonably possible after the submission date.
<b>Integrity.</b> An honest, fair, responsible, respectful, trustworthy, and courageous effort on all academic work and collaboration. Please read UC San Diego's Policy on <a href="#">Integrity of Scholarship</a> . Then, take the <a href="#">integrity pledge</a> !	<b>Integrity.</b> To uphold integrity standards and create an atmosphere that fosters active learning, creativity, critical thinking, and honest collaboration.
<b>Be flexible.</b> Sometimes my schedule gets affected by unavoidable events, necessitating some office hour rescheduling at the last minute.	<b>Reasonable</b> accommodation and understanding for student situations that arise; however, I will not make exceptions for one person that are not available to every other person in the course.

## Grading Information

Assignment	Weight
<b>Lecture participation:</b> Learning catalytics assignments	16%
<b>Textbook assignments:</b> Mastering Biology Chapter homework	16%
<b>Discussion section:</b> attendance and/or completion of problem set	8%
<b>Chemistry in biology</b>	
<ul style="list-style-type: none"> <li>Pre-Assessment quiz</li> <li>Post-Assessment quiz</li> </ul>	1% 3%
<b>Exams</b>	54%
<ul style="list-style-type: none"> <li>Highest quiz (18%)</li> <li>Next highest quiz (12%)</li> <li>Lowest quiz (0%)</li> <li>Final exam (24%)</li> </ul>	
<b>Professionalism</b>	2%
Total	100%
Extra credit (e.g. other surveys)	1%

The following grading scheme will be used. The 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%; A = 93-97%; A- = 90-93%; B+ = 87-90%; B = 83-87%; B- = 80-83%; C+ = 77-80%; C = 73-77%; C- = 70-73%; D = 60-70%; F = 0-60%

### Lecture participation

Active participation in lecture is important for your learning!

Participation includes attending class and participating in **Learning Catalytics questions**. You may submit responses to questions through any electronic device with internet access. These will be graded **only for participation (complete/incomplete)**. **Questions must be completed during in-class synchronous participation.** We will start counting Learning Catalytics participation for points during week 2, so that there is time to practice with the technology. Additionally, **we know that everyone has different circumstances and life events.** Therefore, we will drop the lowest 6 learning catalytics class periods.

These questions are designed to help you engage with the lecture material, to help you identify areas to focus your studying on, and to help me identify areas that I need to spend more time on in lecture. 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.

For your responses to correctly be associated with your name, **you must register on Learning Catalytics through the Mastering Biology site.**

Please be aware that it does not represent your learning if you submit

responses for another person, so in that situation we cannot give you or the other person participation points. We appreciate these are challenging times that we are all going through and want to ensure you feel listened to and supported through this process.

### Section participation and section activities

Weekly discussion sections are designed to engage you in applying your knowledge and exercising your skills in collaborative problem solving and data analysis. Therefore, part of your score will depend on attendance and participation in section. The first sections will meet during the first week of classes.

We acknowledge that there might be extenuating circumstances preventing you from being able to attend section in a given week. We will drop the lowest discussion section score for each student. Additionally, each week you will have the option of completing the discussion section assignment asynchronously with an additional written reflection asynchronously for credit. We reserve the right to grade asynchronous assignments for correctness.

### Chemistry in biology assignments

This year we have a special set of assignments associated with learning the **chemistry behind life**. Cells are made up of molecules like enzymes and DNA, and these molecules are chemicals that follow chemical principles. To understand life, it is crucial to not only understand, but **master** some basic concepts about how molecules interact with each other. **This may seem daunting, but we will support you** by giving you multiple opportunities for practice and demonstrating your proficiency. Although these assignments can be completed in any order, we expect that most students will do the following:

1. Take the **Chemistry in Biology Pre-assessment Quiz**, due at the end of the first week of class. The purpose of this quiz is to give you a sense of which chemistry topics you already understand or do not understand. If you get a question wrong, it will state the topic and link to a supplemental AChiBE module on that topic. This Quiz is graded on **completion**
2. Complete an **optional AChiBE module** on topics that are not yet mastered. For each topic, there is a module that contains pre-assessment questions, a video explainer designed by previous BILD 1 students that explains the chemistry topic in a real-world context, and post-assessment questions to help you understand whether you are solid in your learning. These are not graded, and you can answer the questions and watch the videos as many times as you'd like.
3. Come to **student** hours in week 2 to ask about any chemistry concepts that are still sticky after class
4. Take the **Chemistry in Biology Proficiency Assessment**, due at the end of the second week of class. This will have questions that are similar to the pre-assessment and module post-assessment questions to test whether you have mastered the chemistry material.

**In order to get full credit on this assessment, you must score at least 90% on it** (i.e. get at least 18 out of 20 questions correct). All students who score at least 18/20 will receive 40pts. **Students who do not achieve at least 90% will receive 20pts for the assessment, regardless of their score.** However, you may take the assessment up to 50 times (the questions change slightly each time), and if you score less than 18/20, you are encouraged to review the study materials and contact the teaching team to fully the material. Scores will be adjusted according to these guidelines after the assignment is due.

**We believe that everyone can learn this material and that doing so will help you immensely in learning biology. We are here to support you in your journey!**

### Chapter homework assignments

For each textbook chapter there will be a homework assignment available on mastering biology. Each question can be attempted 3 times. To receive full credit, finish the problem set before 11:59 PM the Sunday the of the week the chapter was assigned. **Similarly to other assignments, we know that everyone has different circumstances and life events. Therefore, we will drop each student's three lowest scored chapter assignments.**

### 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, select all that apply, and short answer. Any material covered in or closely related to each lesson's learning objectives may be tested. For each exam, you will have the opportunity to earn up a percentage of your individual exam score back for filling out a post-exam reflection.

#### Quizzes

There will be 3 quizzes in this course. Your lowest quiz grade will be dropped. If you miss one of the quizzes, that will be the quiz dropped. We will also weight your quizzes differently based on your performance, with whichever quiz is your highest score being 18% of your final grade and your next highest quiz worth 12% of your grade.



## Final exam

Everyone must take the final exam. We understand that given the nature of this quarter, you might not be able to take the exam during its scheduled time. If you need to miss the final exam due to a verifiable, unplanned emergency, you must notify us about the problem as soon as it is reasonable to do so. You must provide adequate documentation (doctor's note, copy of death certificate etc). We will discuss your best options given your circumstances.

## Professionalism

This portion of the course grade is intended to motivate students to consider the impact of their actions on their own learning and the learning of others in the course. Professional interactions have meaningful benefits to you, your fellow students, and/or the teaching team. Analogously (similar to) in the workplace, being professional to your colleagues or supervisors will only benefit you! For example, you may be invited for new opportunities that you may or may not have been aware of. Professionalism can be demonstrated through individually demonstrating maturity and professionalism, as well as contributing meaningfully to our course community. **By default, every student is assumed to be professionally mature. Hence, this component is awarded to every student at the beginning of the quarter.** During the quarter, based on observations by the teaching team, which includes but is not limited to one-on-one interactions, electronic communication etc. your professionalism credit may be deducted.

### Example interactions with meaningful benefits:

- Developing deeper insight into course material, concepts, biology, and/or society in general
- Working collaboratively to improve in skill building and future opportunities
- Contributing to an inclusive learning environment
- Learning conceptually and meaningfully why full credit was not awarded for an assignment
- Clarifying course material that facilitates deeper learning
- Reporting errors or problems in class, on assignments, or for other course material
- Arriving on-time to discussion sessions and being prepared to work

### Example interactions that challenge the classroom community:

- Contributing inequitably to team work
- Harassing and/or bullying the instructional team or other students, either in person or online
- Ignoring the directions or requests from the instructional team

## Extra credit

You have several opportunities for extra credit. After each mid-term there will be a short canvas assignment consisting of an exam reflection where you are able to identify and further explore any remaining points of confusion and make up for exam points missed. In addition, 1% of course extra credit can be earned by accumulating points through: attending student hours with Professor Meaders or the instructional team; completing short optional Scientist Spotlight assignments (5 available throughout the quarter); and completing course evaluations and/or completing related surveys which aim to improve the course and the educational experiences of your future peers. There are no other opportunities for extra credit beyond what is assigned by the course instructor.

## Regrades

If a grading error has been made, you should submit a re-grade request via email or gradescope to your Instructional Assistant or Dr. Meaders. Students who submit items for re-grading understand that we may re-grade the entire item and the score may go up or down.

## Late assignments

Assignments must be submitted on time to be eligible for full credit. Due to the gradebook structure we are unable to give late credit for learning catalytics questions – if you miss a session, this will count as one of your 6 dropped sessions. We are able to provide partial credit for late assignments for chapter assignments and discussion section problem sets,. Partial credit will automatically be applied with late assignments subjected to a 10% deduction per day. **If you need an extension there is an “I need an extension” request form on canvas under the getting started module before the assignment due date. All students are eligible for 3 late assignments, no questions asked.** Extensions (removal of late penalties) will be applied by the end of the quarter.

**Academic Integrity** <https://students.ucsd.edu/academics/academic-integrity/index.html>

**Integrity of scholarship** is essential for an academic community. The University expects that both students and faculty will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual(s) to whom it is assigned, without unauthorized aid of any kind. In this course, we need to establish a set of shared values. Following are values\* adopted from the [International Center for Academic Integrity](#), which serves as the foundation for academic integrity.

	As students we will...	As the teaching team we will...
<b>Honesty</b>	<ul style="list-style-type: none"> <li>Honestly demonstrate your knowledge and abilities according to expectations listed in the syllabus or in relation to specific assignments and exams</li> <li>Communicate openly without using deception, including citing appropriate sources</li> </ul>	<ul style="list-style-type: none"> <li>Give you honest feedback on your demonstration of knowledge and abilities on assignments and exams</li> <li>Communicate openly and honestly about the expectations and standards of the course through the syllabus and in relation to assignments and exams</li> </ul>
<b>Responsibility</b>	<ul style="list-style-type: none"> <li>Complete assignments on time and in full preparation for class</li> <li>Show up to class on time and be mentally and physically present</li> <li>Participate fully and contribute to team learning and activities</li> </ul>	<ul style="list-style-type: none"> <li>Give you timely feedback on your assignments and exams</li> <li>Show up to class on time and be mentally and physically present</li> <li>Create relevant assessments and class activities</li> </ul>
<b>Respect</b>	<ul style="list-style-type: none"> <li>Speak openly with one another while respecting diverse viewpoints and perspectives</li> <li>Provide sufficient space for others to voice their ideas</li> </ul>	<ul style="list-style-type: none"> <li>Respect your perspectives even while we challenge you to think more deeply and critically</li> <li>Help facilitate respectful exchange of ideas</li> </ul>
<b>Fairness</b>	<ul style="list-style-type: none"> <li>Contribute fully and equally to collaborative work, so that we are not freeloading off of others</li> <li>Not seek unfair advantage over fellow students in the course</li> </ul>	<ul style="list-style-type: none"> <li>Create fair assignments and exams and grade them in a fair and timely manner</li> <li>Treat all students and collaborative teams equally</li> </ul>
<b>Trust-worthiness</b>	<ul style="list-style-type: none"> <li>Not engage in personal affairs while on class time</li> <li>Be open and transparent about what we are doing in class</li> <li>Not distribute course materials to others in an unauthorized fashion</li> </ul>	<ul style="list-style-type: none"> <li>Be available to all students when we say we will be</li> <li>Follow through on our promises</li> <li>Not modify the expectations or standards without communicating with everyone in the course</li> </ul>
<b>Courage</b>	<ul style="list-style-type: none"> <li>Say or do something when we see actions that undermine any of the above values</li> <li>Accept the consequences of upholding and protecting the above values</li> </ul>	<ul style="list-style-type: none"> <li>Say or do something when we see actions that undermine any of the above values</li> <li>Accept the consequences of upholding and protecting the above values</li> </ul>

\* This class statement of values is adapted with permission from Tricia Bertram Gallant Ph.D.

All course materials are the property of the instructor, the course, and the 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 and possibly given a score of 0.

## Student Resources for Support and Learning

### Academic Support

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

### Student resources

<a href="#">Basic Needs</a>	Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their academic performance, is encouraged to contact: <a href="mailto:foodpantry@ucsd.edu">foodpantry@ucsd.edu</a> , <a href="mailto:basicneeds@ucsd.edu">basicneeds@ucsd.edu</a> , or call 858-246-2632.
<a href="#">Triton Food Pantry</a>	Emergency food relief program to provide food for students and fight food insecurity. You can get canned food, pasta, beans, and rice as well as fruit and vegetables at the pantry. <a href="mailto:foodpantry@ucsd.edu">foodpantry@ucsd.edu</a>
<a href="#">Counseling and Psychological Services (CAPS)</a>	Provides services like confidential counseling and consultations for psychiatric services and mental health programming
<a href="#">Community Centers</a>	As part of the <a href="#">Office of Equity, Diversity, and Inclusion</a> the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus
<a href="#">Counseling and Psychological Services</a>	Individual, group, couples, and family psychotherapy services for registered undergraduate and graduate students
<a href="#">Office for Students with Disabilities</a>	Documents students disabilities, provides accessibility resources, and reasonable accommodations
<a href="#">Triton Concern Line</a>	Report students of concern at (858) 246-1111



<a href="#">Blackline</a>	Call and text support, focused on support for Black, Black LGBTQI, Brown, Native and Muslim communities for those in crisis and for reporting anti-Black encounters with police and vigilantes.
It is also helpful to find support and resources for your specific needs. Some of the resources here at UCSD include: APIMEDA programs and services ( <a href="http://apimeda.ucsd.edu">apimeda.ucsd.edu</a> ), the Black Resource Center ( <a href="http://brc.ucsd.edu">brc.ucsd.edu</a> ), the Cross-Cultural Center ( <a href="http://ccc.ucsd.edu">ccc.ucsd.edu</a> ), the LGBT Resource Center ( <a href="http://lgbt.ucsd.edu">lgbt.ucsd.edu</a> ), the Raza Resource Centro( <a href="http://raza.ucsd.edu">raza.ucsd.edu</a> ), the Student-Parents Resource page ( <a href="http://students.ucsd.edu/well-being/wellness-resources/student-parents">students.ucsd.edu/well-being/wellness-resources/student-parents</a> ), the Student Veterans Resource Center ( <a href="http://students.ucsd.edu/sponsor/veterans">students.ucsd.edu/sponsor/veterans</a> ), the Undocumented Student Services Center ( <a href="http://uss.ucsd.edu">uss.ucsd.edu</a> ), the Women’s Center ( <a href="http://women.ucsd.edu">women.ucsd.edu</a> ), and the Triton Transfer Hub ( <a href="http://transferstudents.ucsd.edu/transfer-hub/index.html">transferstudents.ucsd.edu/transfer-hub/index.html</a> )	

### Accessibility

<http://disabilities.ucsd.edu> | [osd@ucsd.edu](mailto:osd@ucsd.edu) | 858-534-4382

Any student with a disability is welcome to contact me early in the quarter to work out accommodations to support their success in this course. Students requesting accommodations for this course due to a disability should work through the Office for Students with Disabilities (OSD). Instructors will receive Authorization for Accommodations Letters from the OSD online portal. Students are required to discuss accommodation arrangements with instructors and OSD liaisons in the department in advance of any exams or assignments. Whenever possible, we will use universal designs that are inclusive. If you have feedback on how to make the class more accessible, please get in touch!

### Inclusion

<https://diversity.ucsd.edu/> | [diversity@ucsd.edu](mailto:diversity@ucsd.edu) | 858.822.3542

<https://students.ucsd.edu/student-life/diversity/index.html>

<https://regents.universityofcalifornia.edu/governance/policies/4400.html>

It is our goal to create a learning environment that supports diversity of thought, perspective, experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, etc.). To help accomplish this:

- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me during office hours or by appointment. I want to be a resource for you.
- You can also submit anonymous feedback at <https://forms.gle/XiGiP8gbJzCDoYHh9> (which will lead to me making a general announcement to the class, if necessary to address your concerns). If you prefer to speak with someone outside of the course, the Office of Equity, Diversity and Inclusion ([diversity@ucsd.edu](mailto:diversity@ucsd.edu)) is an excellent resource.

I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that made you feel uncomfortable, please talk to me about it. (Again, anonymous feedback is always an option.)

We encourage all of you to participate in discussion and contribute from your perspectives. As a participant in course discussions, you should also strive to honor the diversity of your classmates. If you have feedback on how to make the class more inclusive, please get in touch!

### Nondiscrimination and harassment

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

If students have questions about student-related nondiscrimination policies or concerns about possible discrimination or harassment, they should contact the Office for the Prevention of Harassment & Discrimination (OPHD) at (858) 534-8298, <https://ophd.ucsd.edu/>, or <http://ophd.ucsd.edu/report-bias/index.html>

Campus policies provide for a prompt and effective response to student complaints. This response may include alternative resolution procedures or formal investigation. Students will be informed about complaint resolution options. A student who chooses not to report may still contact CARE at the Sexual Assault Resource Center for more information, emotional support, individual and group counseling, and/or assistance with obtaining a medical exam. For off-campus support services, a student may contact the Center for Community Solutions. Other confidential resources on campus include Counseling and Psychological Services, Office of the Ombuds, and Student Health Services.

- CARE at the Sexual Assault Resource Center: 858.534.5793 | [sarc@ucsd.edu](mailto:sarc@ucsd.edu) | <https://care.ucsd.edu>
- Counseling and Psychological Services (CAPS): 858.534.3755 | <https://caps.ucsd.edu>

### Letters of recommendation

If you think you may want me to write you a letter of recommendation (or any other instructor), please consider what a good letter would contain and how your actions in the course demonstrate the qualities you will want highlighted in a good letter. When students ask me for a letter of recommendation, I ask them to write to me about how they demonstrated critical thinking, leadership, collaboration, and professionalism. I will be specifically looking for examples of these qualities that I could have noticed during lecture or discussion and student hours. Be sure to actively participate in the discussions, talk to me my student hours: ask questions, offer your own ideas engage with the material we are studying. If you would like to request a letter, please request at this link: <https://forms.gle/JfiutS9CcuQA1rBf7>.

### Subject to change policy

The information contained in the course syllabus, other than the grade and absence policies, may be – under certain circumstances (e.g. to enhance student learning) – subject to change with reasonable advance notice, as deemed appropriate by the instructor.

### Technical support

For help with accounts, network, and technical issues: <https://acms.ucsd.edu/contact/index.html>

For help connecting to electronic library resources such as eReserves and e-journals:

<https://library.ucsd.edu/computing-and-technology/connect-from-off-campus/>

### Campus Safety Requirements and Expectations

Keeping our campus healthy takes all of us. You are expected to follow the [campus safety requirements](#) and pursue personal protection practices to protect yourself and the others around you. These include:

- **Participate in the university's daily screening process.**  
Everyone must complete a [Daily Symptom Survey](#) to access a university-controlled facility.
- **Participate in the university's testing program.**  
All students are required to participate in the [COVID-19 Testing program](#) as required by their vaccination status:
- **Wear a well-fitted face covering that covers your nose and mouth at all times during class.**  
[Masking remains required during classroom instruction](#) regardless of vaccination status. If you see someone not wearing a face covering or wearing it incorrectly, then kindly ask them to mask up.
- **Monitor the daily potential exposure report.** Every day the university will update the potential exposure report with building and some classroom information and the dates of exposure. Download the [CA COVID Notify app](#) to your phone to receive an alert if you have been potentially exposed to COVID-19.
- **Assist in the contact tracing process.** If you're contacted by a case investigator, it means you have been identified as a [close contact](#), please respond promptly.
- **Contact the instructional team if you are impacted by COVID-19**

*Elements of this syllabus were adapted from a Winter 2021 BILD 1 syllabus provided by Dr. Melinda Owens and from the UCSD Teaching and Learning Commons.*

## Course Schedule

Below is the planned course schedule of topics, although this is subject to some change. I will announce any changes in advance. Each Monday please check the "Week # overview" page for details of which weekly assignments will be due, and which sections of textbook chapters to read.

All material will be covered on the final exam

	Date	Topic
Week 1	Class 1: April 3 <sup>rd</sup> (Mon)	Welcome to BILD 1! Nuts and bolts of the course; intro to cells; Size and scale
	Class 2: April 5 <sup>th</sup> (Weds)	Introduction to matter, Chemical bonds
	Class 3: April 7 <sup>th</sup> (Fri)	Chemical bonds, water and life, carbon
Week 2	Class 4: April 10 <sup>th</sup> (Mon)	Introduction to macromolecules (DNA and RNA)
	Class 5: April 12 <sup>th</sup> (Weds)	Macromolecules (proteins)
	Class 6: April 14 <sup>th</sup> (Fri)	Macromolecules (carbohydrates and lipids)
Week 3	Class 7: April 17 <sup>th</sup> (Mon)	Cell structure and organization
	Class 8: April 19 <sup>th</sup> (Weds)	FIRST QUIZ Covers material from classes <u>1-6</u>
	Class 9: April 21 <sup>st</sup> (Fri)	Membrane structure and function
Week 4	Class 10: April 24 <sup>th</sup> (Mon)	Intro to metabolism
	Class 11: April 26 <sup>th</sup> (Weds)	Enzymes
	Class 12: April 28 <sup>th</sup> (Fri)	Cellular respiration part 1
Week 5	Class 13: May 1 <sup>st</sup> (Mon)	Cellular respiration part 2
	Class 14: May 3 <sup>rd</sup> (Weds)	Photosynthesis part 1
	Class 15: May 5 <sup>th</sup> (Fri)	Photosynthesis part 2
Week 6	Class 16: May 8 <sup>th</sup> (Mon)	SECOND QUIZ Covers material from classes <u>7-13</u>
	Class 17: May 10 <sup>th</sup> (Weds)	Cell Signaling
	Class 18: May 12 <sup>th</sup> (Fri)	Cell cycle and mitosis
Week 7	Class 19: May 15 <sup>th</sup> (Mon)	Meiosis
	Class 20: May 17 <sup>th</sup> (Weds)	Mutations and Cancer
	Class 21: May 19 <sup>th</sup> (Fri)	Mendel and the gene idea
Week 8	Class 22: May 22 <sup>nd</sup> (Mon)	Genes and the environment
	Class 23: May 24 <sup>th</sup> (Weds)	The chromosomal basis of inheritance
	Class 24: May 26 <sup>th</sup> (Fri)	THIRD QUIZ Covers material from classes 14-21
Week 9	May 29 <sup>th</sup>	NO CLASS (Holiday)
	Class 25: May 31 <sup>st</sup> (Weds)	The molecular basis of inheritance
	Class 26 <sup>th</sup> June 2 <sup>nd</sup> (Fri)	Gene expression part 1
Week 10	Class 27: June 5 <sup>th</sup> (Mon)	Gene expression part 2
	Class 28: June 7 <sup>th</sup> (Weds)	Regulation of gene expression part 1
	Class 29: June 9 <sup>th</sup> (Fri)	Regulation of gene expression part 2
Finals	Final exam (cumulative): Section B00 Wednesday June 14 <sup>th</sup> 3:00-6:00 PM Location TBD	

University of California, San Diego  
Consent to Act as a Research Subject

Assessing the Impact of the Acing Chemistry in Biology Education (AChiBE) Program

***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?***

Melinda T. Owens and Claire Meaders and their research associates are conducting a research study to find out more about how the Acing Chemistry in Biology Education (AChiBE) program affects 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 2000 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 introductory biology 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 AChiBE program 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. Your instructor will render the data confidential by removing any personally identifying information before it is shared with the research team. Thus, data will only be kept in an anonymized form for research purposes. No personally identifying data with people outside our research team. Your instructor will not know whether or not you are participating in this study until after the course is over and final grades are submitted. 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 your professor will not know who is or is not participating in the study until after the term is over.

***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 on a survey or questionnaire at any time without penalty or loss of benefits to which you are entitled, like grades. If you decide that you no longer wish to continue in this study at any time, simply respond to the online opt-out form here: [link to course-specific opt-out form].

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 the best interest of the study, for example if there is incomplete data or plagiarized responses. 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?***

Melinda Owens, Claire Meaders, or one of their associates has explained this study to you and answered your questions. If you have other questions or research-related problems, you may reach Melinda Owens at [mtowens@ucsd.edu](mailto:mtowens@ucsd.edu) or (415) 290-8853.

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](#). Your instructor will not have access to the list of students who opted out until after the term is over.