

Welcome and health statement

Students: Welcome to BILD 1! This has been a challenging year for many reasons, including the ongoing COVID-19 pandemic. **As your professor, I value your health, wellbeing, and learning.** 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. However, this is not at the expense of your wellbeing. This is an in-person course and we will follow UCSD's guidelines for everyone's health during this time. I have built in flexibility into the course should you need to complete any coursework or assignments asynchronously. 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! Additionally, 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.

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.

I will challenge you in this course with readings and a variety of assignments that are designed to help you grow as students and as biologists. **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. You will have the opportunity to practice applying these skills through in-class activities.

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.

Where and when

Lectures: C00 MWF 10:00-10:50 AM, MOS 114; D00 MWF 1:00-1:50 PM, MOS 114

- Lectures will be in-person! I use **active learning** in order to better support your learning. This means we will have interactive lectures with click-in questions (graded based on participation), so that we can immediately identify topic areas that need more explanation, and topic areas that you are comfortable. The in-person class sessions are designed to help you practice applying content, and also are an opportunity to get to know the instructional team and your classmates!
- Discussion section information: **See next page for section information, including IA names and emails**

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. 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!



Pronouns:
She/her/hers
From:
Arlington, VA

Recommended schedule

Day	Outside of class
Sunday	<ul style="list-style-type: none"> Preview textbook chapter for Monday's class
Monday (attend class!)	<ul style="list-style-type: none"> Complete chapter homework assignments (if assigned)
Tuesday	<ul style="list-style-type: none"> Preview chapter for Wednesday's class
Wednesday (attend class!)	<ul style="list-style-type: none"> Complete chapter homework assignments (if assigned)
Thursday	<ul style="list-style-type: none"> Preview chapter for Friday's class
Friday (attend class!)	<ul style="list-style-type: none"> Complete chapter homework assignments; Complete the weekly assignment

Not included:

- Go to your assigned discussion section or complete the discussion section assignment and submit it for credit
- Attend optional Supplemental instruction session for studying tricky concepts
- Attend student hours for clarifying questions and to chat with the instructional team

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. As you can see, 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.

Name	Student hours	Student hours
Dr. Claire Meaders (cmeaders@ucsd.edu)	One-on-one appts	Th 9:00-10:00 AM: (sign up for 15 min appt at https://calendly.com/cmeaders/15min)
	No appt needed! (open to everyone)	T 4:00-4:50 PM on zoom (Link on Canvas under "Zoom LTI Pro") Th 2:00-2:50 PM in person (picnic table outside Bonner hall)

See canvas site for information on IA student hours

Discussion section times:

Section	Day, Time, Location	IA	IA email
C01	F 1:00-1:50 PM; CENTR 217 A	Ashley Chun	achun@ucsd.edu
C02	F 2:00-2:50 PM; CENTR 217 A	Rimma Levina	rlevina@ucsd.edu
C03	F 3:00-3:50 PM; CENTR 217 A	Rimma Levina	rlevina@ucsd.edu
C04	W 5:00-5:50 PM; CENTR 218	Sehee Oh	seoh@ucsd.edu
C05	W 6:00-6:50 PM; CENTR 218	Carolina López	cal007@ucsd.edu
C06	W 7:00-7:50 PM; CENTR 218	Lance Tiu	ltiu@ucsd.edu
C07	W 8:00-8:50 PM; CENTR 218	Varsha Beldona	vbeldona@ucsd.edu
D01	Th 5:00-5:50 PM; CENTR 217 B	Siddharth Gaywala	sgaywala@ucsd.edu
D02	Th 6:00-6:50 PM; CENTR 217 B	Claire Chapman	cmchapman@ucsd.edu
D03	Th 7:00-7:50 PM; CENTR 217 B	Claire Chapman	cmchapman@ucsd.edu
D04	F 12:00-12:50 PM; CENTR 218	Joanna Jain	jnjain@ucsd.edu
D05	F 3:00-3:50 PM; CENTR 218	Caitlyn Santistevan	csantist@ucsd.edu
D06	F 4:00-4:50 PM; CENTR 218	Martin Dang Vu	ndangvu@ucsd.edu
D07	F 5:00-5:50 PM; CENTR 218	Jordan Lin	d8lin@ucsd.edu

BILD 1 Supplemental Instruction

What is Supplemental Instruction? 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. All enrolled BILD 1 students will be added to the BILD 1 SI canvas page.

Course Materials

Required materials: Campbell Biology (12th edition ebook) and Mastering Biology.

*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 charged a special reduced price unless you **opt out (see opt-out instructions below)**. If you decide to opt out you must complete the process by **October 8th, 2022, 11:59PM PDT** and you will be responsible for sourcing the materials elsewhere. (We advise against this since unless you are dropping the course, since weekly course assignments are through the Mastering Biology platform). For any questions about billing please contact textbooks@ucsd.edu. For any questions about using your eBook please reference [RedShelf Solve](#).*

- This textbook will be useful for BILD 1, 2, and 3. 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.
- Should you need to opt-out: 1) Click the RedShelf link in Canvas 2) Click View Course Materials 3) Scroll down to the gray opt-out button and follow the prompts to opt out.

Lecture slides will be posted on canvas after 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 learn¹. In this course, we will encourage engagement in class by providing opportunities to troubleshoot difficult topics and practice problem solving. There will also be short pre- and post- class assignments to help you check your understanding and practice applying what you have learned.

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 material². 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
Be informed. Read this syllabus carefully and completely so you understand the course structure and expectations.	Enthusiasm. To be prepared for each class and to bring my enthusiasm for teaching to each lecture, lab, and office hour meeting.
Be attuned. Keep up with the lecture videos and lab assignments, as each one builds on the previous one.	Responsiveness. 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.
Ethical. 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 Principles of Community and Conduct Code .	Timely feedback. 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.
Integrity. An honest, fair, responsible, respectful, trustworthy, and courageous effort on all academic work and collaboration. Please read UC San Diego's Policy on Integrity of Scholarship . Then, take the integrity pledge !	Integrity. To uphold integrity standards and create an atmosphere that fosters active learning, creativity, critical thinking, and honest collaboration.
Be flexible. Sometimes my schedule gets affected by unavoidable events, necessitating some office hour rescheduling at the last minute.	Reasonable 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
Lecture participation	<ul style="list-style-type: none"> Learning catalytics assignments 	10%
Weekly assignments	<ul style="list-style-type: none"> Mastering Biology Chapter homework 	16%
	<ul style="list-style-type: none"> Discussion section attendance and/or completion of problem set 	12%
	<ul style="list-style-type: none"> Weekly reflection/assignment Chemistry in biology assignment (weeks 1 and 2) 	8% 2%
Exams	<ul style="list-style-type: none"> Highest mid-term (18%) Next highest mid-term (12%) Lowest mid-term (0%) Final exam (20%) 	50%
Professionalism		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 = 94-97%
A- = 90-94%
B+ = 87-90%
B = 84-87%
B- = 80-84%
C+ = 77-80%
C = 74-77%
C- = 70-74%
D = 60-70%
F = 0-60%

Lecture participation

Learning catalytics questions

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 enroll. 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 full 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.

Weekly assignments

Each week starting the first week of classes there will be a weekly assignment posted on Canvas.

- During weeks 1 and 2 the weekly assignments will consist of a chemistry in biology module. The Week 1 assignment will be a short asynchronous quiz to assess your comfort with chemistry, graded complete/incomplete. The week 2 assignment will be a short asynchronous quiz graded on correctness to assess your knowledge of chemistry in biology. This quiz can be taken multiple times, and all students who receive 90% or higher will receive full credit on the assignment.
- From weeks 3-10 the weekly assignments will include reflection questions (graded complete/incomplete) as well as a Scientist spotlight assignments: these are short (350 word) assignments with short readings, designed to introduce you to scientists who contribute to work we will be learning about in class. These are also graded complete/incomplete. Weekly assignments will be due every Sunday evening, no later than 11:59 PM. We will drop one weekly assignment (the lowest score) for each student.

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.

Midterms

There will be 3 midterms in this course. Your lowest midterm grade will be dropped. If you miss one of the midterms, that will be the midterm dropped. We will also weight your exams differently based on your performance, with whichever midterm is your highest score being 18% of your final grade and your next highest midterm 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; coffee or dining with a Prof; 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.

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 three dropped sessions. We are able to provide partial credit for late assignments for chapter assignments, discussion section problem sets, and weekly assignments only. 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. 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.

Regrades

If a grading error has been made, you should submit a re-grade request via email 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.

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...
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 Show up to class on time and be mentally and physically present Participate fully and contribute to team learning and activities 	<ul style="list-style-type: none"> Give you timely feedback on your assignments and exams Show up to class on time and be mentally and physically present Create relevant assessments and class activities
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 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 equally
Trust-worthiness	<ul style="list-style-type: none"> Not engage in personal affairs while on class time 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

* *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

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

Student resources

Basic Needs	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: foodpantry@ucsd.edu , basicneeds@ucsd.edu , or call 858-246-2632.
Triton Food Pantry	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. foodpantry@ucsd.edu
Counseling and Psychological Services (CAPS)	Provides services like confidential counseling and consultations for psychiatric services and mental health programming
Community Centers	As part of the Office of Equity, Diversity, and Inclusion the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus
Counseling and Psychological Services	Individual, group, couples, and family psychotherapy services for registered undergraduate and graduate students
Office for Students with Disabilities	Documents students disabilities, provides accessibility resources, and reasonable accommodations
Triton Concern Line	Report students of concern at (858) 246-1111

Blackline	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 (apimeda.ucsd.edu), the Black Resource Center (brc.ucsd.edu), the Cross-Cultural Center (ccc.ucsd.edu), the LGBT Resource Center (lgbt.ucsd.edu), the Raza Resource Centro(raza.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 Center (uss.ucsd.edu), the Women’s Center (women.ucsd.edu), and the Triton Transfer Hub (transferstudents.ucsd.edu/transfer-hub/index.html)	

Accessibility

<http://disabilities.ucsd.edu> | 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 | 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) 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 | <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 0	Class 1: Sept 23 (Fri)	Welcome to BILD 1! Nuts and bolts of the course; intro to cells
Week 1	Class 2: Sept 26 th (Mon)	Definitions of life, size and scale, introduction to matter
	Class 3: Sept 28 th (Weds)	Chemical bonds
	Class 4: Sept 30 th (Fri)	Chemical bonds, water and life, carbon
Week 2	Class 5: Oct 3 rd (Mon)	Introduction to macromolecules (DNA and RNA)
	Class 6: Oct 5 th (Weds)	Macromolecules (proteins)
	Class 7: Oct 7 th (Fri)	Macromolecules (carbohydrates and lipids)
Week 3	Class 8: Oct 10 th (Mon)	Cell structure and organization
	Class 9: Oct 12 th (Weds)	FIRST MID-TERM EXAM Covers material from classes <u>1-7</u>
	Class 10: Oct 14 th (Fri)	Membrane structure and function
Week 4	Class 11: Oct 17 th (Mon)	Intro to metabolism
	Class 12: Oct 19 th (Weds)	Enzymes
	Class 13: Oct 21 st (Fri)	Cellular respiration part 1
Week 5	Class 14: Oct 24 th (Mon)	Cellular respiration part 2
	Class 15: Oct 26 th (Weds)	Photosynthesis part 1
	Class 16: Oct 28 th (Fri)	Photosynthesis part 2
Week 6	Class 17: Oct 31 st (Mon)	SECOND MID-TERM EXAM Covers material from classes <u>8-14</u>
	Class 18: Nov 2 nd (Weds)	Cell Signaling
	Class 19: Nov 4 th (Fri)	Cell cycle and mitosis
Week 7	Class 20: Nov 7 th (Mon)	Meiosis
	Class 21: Nov 9 th (Weds)	Mutations and Cancer
	Nov 11 th (Fri)	NO CLASS (Holiday)
Week 8	Class 22: Nov 14 th (Mon)	Mendel and the gene idea
	Class 23: Nov 16 th (Weds)	THIRD MID-TERM EXAM Covers material from classes 15-21
	Class 24: Nov 18 th (Fri)	Genes and the environment
Week 9	Class 25: Nov 21 st (Mon)	The chromosomal basis of inheritance
	Class 26: Nov 23 rd (Weds)	The molecular basis of inheritance
	Nov 25 th (Fri)	NO CLASS (Holiday)
Week 10	Class 27: Nov 28 th (Mon)	Gene expression
	Class 28: Nov 30 th (Weds)	Regulation of gene expression
	Class 29: Dec 2 nd (Fri)	Viruses
Finals	Final exam: Section C00 Friday Dec 9 th 8:00-10:59 AM Location TBD Section D00 Monday Dec 5 th 11:30 – 2:29 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 900 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 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.