

BILD2 MULTICELLULAR LIFE

Fall Quarter 2020

Problem Sessions: **Wednesday** 1-1:50 pm
Wednesday 2-2:50 pm
Wednesday 3-3:50 pm
Wednesday 4-4:50 pm

All times in PDT

Course Information

Instructor: Thomas Kuret (Him/His), (email: tkuret@ucsd.edu, please include “BILD2” in the subject line of emails.)

Office Hours: Thursday 5:00pm-6pm PDT, or by appointment via Zoom

IA: Yue Sun, (email: yus221@ucsd.edu)

Office Hours: XXXXXX

IA: Swetha Maganti (email: s1magant@ucsd.edu)

Office Hours: Monday 4:00-5:00pm

IA: Aliyah Parker (email: anp090@ucsd.edu)

Office Hours: Monday 2:00-3:00pm

Course Description

Welcome to BILD2 for Fall Quarter 2020! In this course, we will build on what you have learned in BILD1 to understand how multicellular life is organized and functions. We will cover a variety of topics including metabolism, development, neurobiology, and more. We will also work to develop scientific and critical thinking skills in this course, tackling problems that involve interpretation of scientific data. A goal is to not just memorize facts, but be able to think deeply about scientific concepts and apply critical thinking.

This class will be held completely online (see below, Course Format). The pandemic has forced us all to upend and disrupt our lives. This includes education. Although we will not be physically meeting, we hope to provide many opportunities for you to interact with myself and the IAs virtually, as well as with each other.

About the Instructor

I am a biologist who has been studying the nervous system and neurological development for over 5 years. I am very excited to help you continue your journey in biological sciences in BILD2. I am a Midwesterner, born and raised in Columbus Ohio and I started studying here at UCSD. My hobbies include biking, baking, and brunch.

Overall Course Expectations

What I expect of you	What you can expect of me
<p>Be informed. Read this syllabus carefully and completely so you understand the course structure and expectations.</p>	<p>Enthusiasm. To be prepared for each class and to bring my enthusiasm for teaching to each lecture and office hour meeting.</p>
<p>Be attuned. Keep up with lectures and assignments, as each one builds on the previous one.</p>	<p>Responsiveness. I will do my best to respond to emails within 24 hours. Emails received on weekends may take longer.</p>
<p>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.</p>	<p>Timely feedback. To make every effort to return graded assignments in a timely manner and to post solutions as soon as is reasonably possible after the submission date.</p>
<p>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!</p>	<p>Integrity. To uphold integrity standards and create an atmosphere that fosters active learning, creativity, critical thinking, and honest collaboration.</p>
<p>Be flexible. Sometimes my schedule gets affected by unavoidable emergencies, necessitating some office hour rescheduling at the last minute.</p>	<p>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.</p>

Course Learning Outcomes

Upon completion of this course, learners will be able to:

1. To describe and explain the organization of multicellular life and how that relates to function.
2. To describe and explain general principles of how multicellular organisms maintain homeostasis and respond to their environment, and their reproduction and development.
3. Predict how disruption of development, structure, and function of a multicellular organism can lead to disease.
3. To communicate and apply scientific thinking through exam questions and other assessments.

Course Materials and Tools

All class lectures, assessments, and other interactions will be online. Therefore, an internet connection in order to access Canvas and Zoom is required.

Most material for this course will be based on Campbell's Biology (page numbers based on the 11th edition). This textbook is not required, but is recommended. Materials in lectures and problem sets will prepare you for exams and quizzes. However, the textbook can serve as a useful context and reference.

Course Format

Due to COVID19, courses in 2020 are being held online through Canvas. Through virtual office hours, study sections, and other tools we will provide opportunities for you as a student to engage with myself, the IAs, and each other in your learning. Let's try to make the best of these circumstances together!

This course will contain a combination of **synchronous** (or live activities where you will interact with others) and **asynchronous** (or activities you can complete with a more flexible schedule) activities. At the start and end of the course, I will post a **survey for you to answer for participation credit**. This survey will help me get to know you, and learn more about what you expect from this class. There will be a second survey to complete at the end of the session.

Lectures

The lecture material will consist of **pre-recorded lectures** posted to Canvas. Lectures will be posted early in the week they are supposed to be watched (see schedule below). These lectures will be broken up into sections (i.e. 1.1,1.2,1.3, etc.) and will include **integrated questions that will be graded for completion** and allow you to think about the concepts covered. **You must complete all videos to receive participation credit.**

Each “day’s” lectures will be worth a total of 10pts. During scheduled office hours, I will be available to answer questions in virtual over Zoom. Please do not hesitate to drop in anytime during office hours. In addition, feel free to email me if you’d like to chat outside office hours or if you are unavailable during scheduled times. My favorite part of teaching is interacting with **YOU**, so don’t hesitate to reach out.

Quizzes

There will be **bi-weekly quizzes which will usually be due by Friday evening** (although see exceptions below) **and graded** (you will be able to **drop your two lowest scoring quizzes**). Therefore, although you will be able to view the lectures on your own schedule, you should complete the lectures (and homework, see below) in a timely fashion to be prepared for the quizzes. The quizzes will be a combination of multiple choice, free response, and true/false. Quizzes will be available on Canvas by 11:59pm Thursday – 11:59pm Friday. **You will have 24hours to start the quiz. Once you start the quiz, it must be completed within the set time limit. You cannot stop and restart the quiz later.**

Homework and Sections

You will be assigned **a set of homework problems for each module** (covering material for that module’s quiz and for the upcoming exams). The homework sets for the week will be posted by each Sunday. **These will be only be graded for completion, but you must complete the entire homework set for credit (one homework grade will be dropped).** Although you will not lose points for incorrect answers, you must make a good faith effort to answer the questions to receive full credit. If questions were clearly not answered seriously, points will be taken off your score. **THE HOMEWORK WILL BE PREPARATION FOR QUIZZES AND EXAMS!** In addition to homework sets, **you will be assigned scientific reading.** These papers are to be read for basic understanding and will be recapped in problem session. To receive credit, you must complete the accompanying worksheet and upload it to Canvas. Study sections will provide opportunities to work on homework sets with the assistance of your classmates and IAs. I highly encourage you to attend at least one study section per week. Your IAs are here to help you!

Office Hours, Discussion Boards, Muddiest Points.

In addition to study sections, there will also be office hours and a class discussion board for you to ask questions and discuss any other issues. I will address key questions from the discussion boards, quizzes, office hours, etc. in a weekly video that will be accessible to all students. **Please submit any questions to the “Muddiest Points” discussion board, by Wednesday Evening.** I will prepare a video for Thursday reviewing common questions, to better prepare you for the week’s quiz.

Exams

Due to the compressed schedule of this course, there will be just two exams: a midterm and a final. The Midterm will cover material from weeks 1-4 and is scheduled for November 2nd. The Final will cover materials from the entire class and is scheduled for December 17th. The exam will consist of questions similar to both the quiz and homework questions. We will also offer a practice Exam before the midterm that will be

worth extra credit. I highly recommend you take this practice, as it will help you know what to expect on the graded exams. There will be more details about the exams as they approach.

You must let me know as soon as possible if you cannot take an exam at the scheduled time (because of a sudden illness or other emergency). Absences for any sincerely held religious belief, observance, or practice will be accommodated where reasonable. (See Academic Regulations and Policies)

Professionalism

This portion of the course grade is intended to motivate you to **consider the impact of your actions on your own learning and the learning of others** in the course.

Unprofessional interactions consume time yet have no meaningful benefits to you, your fellow students, and/or the teaching team. Analogously in the workplace, being unprofessional to your colleagues or supervisors will only discount you. When you are discounted, you will not be invited for new opportunities that you may or may not be aware of.

Professionalism can be demonstrated through individual (described here) and community efforts (described below). The individual component is to account for you personally demonstrating maturity and professionalism.

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

Examples of 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
- Clarifying course material that facilitates deeper learning
- Learning conceptually and meaningfully why full credit was not awarded for an assignment
- Reporting errors or problems in class, on assignments, or other course material

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

- Contributing inequitably to team work in class, in discussion section, or on exams
- Harassing and/or bullying the instructional team or other students
- Ignoring the directions or requests from the instructional team
- Asking for course credit when such credit would conflict with stated course policies (such as the policy on late assignments) or when it would be applied inequitably (such as just for you)
- Being disruptive to fellow students online, in discussion section, or on exams

Canvas

UC San Diego’s Learning Management System: <https://canvas.ucsd.edu>

Login: UC San Diego Active Directory credentials

For help with online learning tools, go to: <https://keeplearning.ucsd.edu/>

Where is everything on Canvas?

Lectures: All lecture videos will also appear in each weekly module as an assignment.

Other materials: PDFs of lectures, Quizzes, homework assignments, and any other materials can be found in the “modules” on the left or the course homepage in Canvas.

Discussion Sections and Office Hours: Go to “Zoom LTI Pro” tab on the left in Canvas. There you will find a list of scheduled meetings. Discussion Sections and regular office hours can be accessed through here in the “Upcoming meetings” section.

Grading Information

Summary of Grade Criteria

Assignment	Points	Weight
Participation x 10 Weeks	20pts (200 total)	20%
Professionalism Points	30pts	3%
Homework x 8 Assignments	15pts (120 total)	12%
Quiz x 5 Assignments	30pts (150 total)	15%
Scientific Reading x8 Assignments	12.5pts (100 total)	10%
Midterm	200pts	20%
Final	200pts	20%
	1000pts	100%

Grading Scale

A+=100%-97% **B+**=<90%-87% **C+**=<80%-77% **D** = <70%-60% **F** = 60%-0
A =<97%-94% **B** =<87%-84% **C** =<77%-74%
A-=<94%-90% **B-**=<84%-80% **C-**=<74%-70%

Grading Procedure and Feedback

Grades will be posted in a timely fashion. There will NOT be a curve. I reserve the right to change the grading scale at the end of the quarter, to accommodate student performance, based on this unprecedented learning situation. Regrade requests will be accommodated if submitted within 48 hours of grades being released. All regrade requests MUST be submitted with adequate justification and explanation of reasoning. Late regrade requests will not be accepted. A regrade request can result in regrading of the entire exam and result in loss of points. Regrades will not be available for the final exam.

Attendance and Participation

Concepts for exams and quizzes will be covered in the lectures. Each lecture will include participation questions that will give you time to think about the topics covered (10pts/lecture).

We highly encourage you to attend problem session each week. Please feel free to attend more than one problem session! This is an opportunity to work through problems with IAs and classmates that will aide in preparing for exams. Think of it as scheduled study time! As with exams, if there is some reason you cannot complete an assignment (i.e. unexpected, severe, illness), please let me know as soon as possible.

Late or Missing Assignments

Due to the fast pace of this course and to help you prepare for deadlines in your career, late homework, quizzes, and exams will not be accepted. However, to help mitigate this policy your two lowest scoring quizzes will be dropped. You will receive zero credit for late and/or incomplete assignments or missed quizzes (if you have a legitimate reason for additional missed deadlines, such as an unexpected illness, please contact me directly). In addition, if there is an unexpected emergency and you cannot take an exam on time (illness, internet problem, etc.) **you must email me before** the exam deadline.

Extra Credit

Extra credit will be graded as a normal assignment (points earned / points earned). You will receive 10pts of extra credit for completing the before-course survey posted on Canvas (ex. 10/10 points). There will also be a practice exam that you can take for up to 5pts extra credit. This will be a great deal shorter than the actual exams, but will help familiarize you with the interface and the types of questions you can expect. **It is highly recommended that you take this practice exam.**

You can also receive extra credit after the midterm by picking one question from the midterm that you got wrong, and writing a ½-pg statement explaining the correct answer. You will then receive full credit for that question up to 5 points. You must email me within one day of receiving your midterm grade saying you want this extra credit to be able to use this opportunity. **If 50% of students complete CAPEs at the end of the quarter, ALL students will receive an additional 10pts extra credit.** It is ALWAYS in your best interest to complete CAPEs so we can better plan courses and improve your learning outcomes. Extra credit is assigned, graded, and weighted solely by the instructor. Students will also be assigned 30 points of professionalism credit. Professionalism points are deducted at the discretion of the instructor.

A Typical Week in This Course

	Asynchronous activities	Synchronous activities	Assignments/ Quizzes
Sunday			Preview Homework Preview Lecture Terms
Monday	Watch lecture	Attend Office Hours	Start on HW Start on Reading Assignment
Tuesday	Watch lecture	Attend Office Hours	
Wednesday		Attend Problem Session Submit muddiest points	Finish HW Finish Reading Assignment
Thursday	Study and Review for Quiz	Attend Office Hours	Submit Homework Submit Reading Assignment
Friday	Study and Review for Quiz		Take Quiz and Relax
Saturday			

Course Schedule

Weeks	Topics	Activities and Assessments	Due Date (by 11:59PM PDT)
1&2	Lecture #1.1 - Introduction, Lecture #1.2 - Surface area to Volume Ratio Lecture #2.1 - Feedback Loops Lecture #2.2 - Homeostasis Lecture #2.3 - Development	Participation Quiz 1: Participation Quiz 2: Quiz 1*: Homework Week 2: Reading 1: Reading 2: Intro Survey:	10/09 10/16 10/16 10/15 CANCELLED 10/15 10/05
3&4	Lecture #3.1 - Cancer Lecture #3.2 - Endocrine System I Lecture #4.1 - Endocrine System I Lecture #4.2 - Reproduction I Lecture #4.3 - Reproduction II	Participation Quiz 3: Participation Quiz 4: Quiz 2*: Homework Week 3: Homework Week 4: Reading 3: Reading 4:	10/23 10/30 10/30 10/22 10/29 10/22 10/29
5&6	11/2 MIDTERM Lecture #5.1 - Nutrition Lecture #5.2 - Nutrition II Lecture #6.1 - Circulation Lecture #6.2 - Circulation II	Participation Quiz 5: Participation Quiz 6: Quiz 3*: Homework Week 5: Homework Week 6: Reading 5: Reading 6:	11/06 11/13 11/13 11/05 11/12 11/05 11/12
7&8	Lecture #7.1 - Renal System Lecture #7.2 - Renal System II Lecture #8.1 - Nervous System Lecture #8.2 - Nervous System II	Participation Quiz 7: Participation Quiz 8: Quiz 4*: Homework Week 7: Homework Week 8: Reading 7: Reading 8:	11/20 11/27 11/27 11/19 11/26 11/19 11/26

9&10	Lecture #9.1 - Motor System Lecture #9.2 - Motor System II and Behavior Lecture #10.1 - Immune System <u>Guest Lecture – Dr. Matty</u> Lecture #10.2 - Immune System II 12/17: FINAL EXAM	Participation Quiz 7: Participation Quiz 8: Quiz 5*: Homework Week 9: Reading 9: Reading 10:	12/04 12/11 12/7 12/10 12/03 12/10
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Student Resources for Support and Learning

Library Help

For questions about eReserves and research tools:

<https://library.ucsd.edu/ask-us/triton-ed.html>

Learning Resources

[Writing Hub I](#)

[Supplemental Instruction](#)

[Content Tutoring](#)

[Learning Strategies Tutoring](#)

Accessibility

Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department in advance so that accommodations may be arranged.

Contact the OSD for further information: <https://disabilities.ucsd.edu/>.
osd@ucsd.edu | 858. 534.4382

Inclusion

I strive to foster an inclusive environment where all students are excited, engaged, and able to succeed. If you have any concerns please do not hesitate to reach out to me, or use the anonymous survey tool on canvas if that would be more comfortable.

Office of Equity, Diversity, and Inclusion:
858.822.3542 | diversity@ucsd.edu | <https://diversity.ucsd.edu/>
<https://students.ucsd.edu/student-life/diversity/index.html>
<https://regents.universityofcalifornia.edu/governance/policies/4400.html>

[Mental Health Services](#)

Counseling and Psychological Services (CAPS) provides individual, group, couples, and family psychotherapy to registered undergraduate and graduate students. Instructors can contact the **Triton Concern**

Line for consultation or concerns about a student. They can also request a training to help identify and work with distressed students.
Office 858-534-3755 | Phone & Crisis: 858-534-3755 | Emergencies: 911

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 performance in this course, is encouraged to contact:
foodpantry@ucsd.edu | basicneeds@ucsd.edu | (858)246-2632

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/>

For help installing Zoom for video conferencing, virtual office hours, synchronous lectures:
<https://blink.ucsd.edu/technology/file-sharing/zoom/index.html>

UC San Diego Academic Policies

Academic Integrity

Academic Integrity is expected of everyone at UC San Diego. This means that you must be honest, fair, responsible, respectful, and trustworthy in all of your actions. Lying, cheating, or any other forms of dishonesty will not be tolerated because they undermine learning and the University's ability to certify students' knowledge and abilities. Thus, any attempt to get, or help another get, a grade by cheating, lying or dishonesty will be reported to the Academic Integrity Office and will result in sanctions. Sanctions can include an F in the class and suspension or dismissal from the University. So, think carefully before you act. Before you act, ask yourself the following questions: a) is my action honest, fair, respectful, responsible, and trustworthy, and b) is my action authorized by the instructor? If you are unsure, don't ask a friend, ask your instructor, instructional assistant, or the Academic Integrity Office. You can learn more about academic integrity at academicintegrity.ucsd.edu.
(Source: Bertram Gallant, T. (2017). Teaching for integrity. UC San Diego Academic Integrity Office.)

Classroom Behavior Policy

Although we will be conducting instruction online, we expect all students to be respectful of each other and the instructors.

Refer to:

[UCSD Student Conduct Code](https://students.ucsd.edu/_files/student-conduct/ucsandiego-student-conduct-code_interim-revisions1-16-18.pdf)

(https://students.ucsd.edu/_files/student-conduct/ucsandiego-student-conduct-code_interim-revisions1-16-18.pdf)

[Principles of Community](https://ucsd.edu/about/principles.html)

(<https://ucsd.edu/about/principles.html>)

Religious Accommodation

It is the policy of the university to make reasonable efforts to accommodate students having bona fide religious conflicts with scheduled examinations by providing alternative times or methods to take such examinations. If a student anticipates that a scheduled examination will occur at a time at which his or her religious beliefs prohibit participation in the examination, the student must submit to the instructor a statement describing the nature of the religious conflict and specifying the days and times of conflict.

For final examinations, the statement must be submitted no later than the end of the second week of instruction of the quarter.

For all other examinations, the statement must be submitted to the instructor as soon as possible after a particular examination date is scheduled.

If a conflict with the student's religious beliefs does exist, the instructor will attempt to provide an alternative, equitable examination that does not create undue hardship for the instructor or for the other students in the class.

Discrimination 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, ophd@ucsd.edu, or reportbias.ucsd.edu.

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>

Subject to Change Policy

Information contained in this course syllabus, other than the grade and absence policies, may be – under certain circumstances such as mutual agreement to enhance student learning – subject to change with reasonable advance notice, as deemed appropriate by the instructor.

