

## Syllabus BICD 110 Cell Biology Winter 2023

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<b>Time:</b>	Tuesday & Thursday, 8:00 – 9:20 AM
<b>Place:</b>	Peterson Hall 108
<b>Instructor:</b>	Dr. Andreas Ernst Cell & Developmental Biology 4218 Bonner Hall Phone: (858) 246-4768 <i>email:</i> <a href="mailto:aernst@ucsd.edu">aernst@ucsd.edu</a>
<b>Office Hours:</b>	Bonner Hall 4218, Tue & Thu 10-11 AM (after class); 1:1 Zoom meetings available upon request.
<b>TAs and IAs:</b>	Ryan Fantasia <i>email:</i> <a href="mailto:rfantasia@ucsd.edu">rfantasia@ucsd.edu</a> Mohona Datta <i>email:</i> <a href="mailto:modatta@ucsd.edu">modatta@ucsd.edu</a> Chi Feng <i>email:</i> <a href="mailto:cfeng@ucsd.edu">cfeng@ucsd.edu</a> Maheeka Bimal <i>email:</i> <a href="mailto:mbimal@ucsd.edu">mbimal@ucsd.edu</a> Jasmine Jung <i>email:</i> <a href="mailto:jjung@ucsd.edu">jjung@ucsd.edu</a> Jack Ord <i>email:</i> <a href="mailto:jord@ucsd.edu">jord@ucsd.edu</a> Om Prajapati <i>email:</i> <a href="mailto:aprajapa@ucsd.edu">aprajapa@ucsd.edu</a>
<b>Exams and Grading:</b>	Midterm 1      (Feb 02, <i>in class</i> , lectures 1-7) Midterm 2      (Feb 28, <i>in class</i> , lectures 8-13) Final      (Mar 23, location TBA, lectures 1-17)
<b>Class Web Site:</b>	The class website is on Canvas ( <a href="http://canvas.ucsd.edu">http://canvas.ucsd.edu</a> ). All class notices, the syllabus, lecture slides, and problem sets will be posted here. Please check the web site regularly for updates.
<b>Lecture Book:</b>	Molecular Cell Biology (9 <sup>th</sup> Edition, Lodish <i>et al.</i> ), <u><i>optional</i></u>
<b>Prerequisites:</b>	BIBC 100 or BIBC 102



problem, 3) description of their findings, and 4) discussion of why these findings are relevant/novel. 5 pts will be awarded if the format and points 1-4 are addressed properly, 7 pts if expectations are exceeded. Revisions might be necessary to obtain minimal points. More than one report can be submitted.

- *Foldscope image/video submission* 1 pts or 3 pts

A 'foldscope' is a preassembled paper microscope with a plastic objective that allows for 140X magnification, and that can be attached to a cell phone. Foldscopes will be available to students during section, who are encouraged to submit a micrograph/video of any interesting cell/tissue/microscopic organism they can find to be awarded 1 pt. We will together vote for the best picture/video on Mar 10. The winning submission will be awarded 3 pts.

- *CAPES* 2 pts

2 pts will be awarded to the entire class if 90% of the class fill out their CAPES.

- *Active and constructive participation during lectures or sections:* 0.5 pts/event

Whether the 'event' will be awarded pts is at the discretion of the instructors.

**The final grade will consist of exam points (90 pts max) and participation credit (10 pts max) as listed below.** No 'curving' will be applied, and scores in between two grades will be rounded up (e.g. 91.5 to 92).

100	pts	=	A +	99 – 92	pts	=	A
91 – 87	pts	=	A –	86 – 83	pts	=	B +
82 – 79	pts	=	B	78 – 75	pts	=	B –
74 – 70	pts	=	C +	69 – 66	pts	=	C
65 – 62	pts	=	C –	61 – 51	pts	=	D
50 – 0	pts	=	F				

### **Makeup Exams:**

There will be *no* makeup exams for midterms. As listed above, grading scheme 2 will apply if one midterm is missed and a valid excuse (e.g. doctor's note) is presented. In the event of a medical emergency that prevents the student from taking the final (doctor's note must be presented), an oral makeup final will be given.

**Regrade Policy:** Request for regrades must be submitted *within one week of the exam return date* during office hours or lectures and contain 1) a cover letter with description of the error, and 2) the original exam (please be advised that we will photocopy all exams before returning them).

**Policy on Cheating:** *Do. Not. Cheat.* This includes during exams, changing an answer for a re-grade, or submitting other student's work as original work. Students caught cheating will be reported to the Office of Academic Integrity (*no exceptions*).

**Course Description:** BICD 110 is an upper division course on the structure and function of eukaryotic cells. Lectures will cover the structure and function of cellular organelles, biological membranes, the cytoskeleton, protein synthesis and sorting, methods of cell biology research, and cells in development and disease. The schedule below is *tentative* and might be adjusted to address student needs.

<b><u>Lecture</u></b>	<b><u>Date</u></b>	<b><u>Topic</u></b>
1	10-Jan	Introduction
2	12-Jan	Molecular Building Blocks
		<i>problem set 1 (lectures 1 - 4)</i>
3	17-Jan	Membrane-Enclosed Compartments
4	19-Jan	Endoplasmic Reticulum (ER)
		<i>problem set 2 (lectures 5 - 7)</i>
5	24-Jan	ER-to-Golgi Transport
6	26-Jan	The Golgi
7	31-Jan	Trans-Golgi-Network (TGN) & Exocytosis
	<b><u>02-Feb</u></b>	<b><u>MIDTERM 1 (Lectures 1-7)</u></b>

*problem set 3 (lectures 8 - 10)*

8	07-Feb	Endocytosis
9	09-Feb	Channels and Transporters
10	14-Feb	Signal Transduction

*problem set 4 (lectures 11 - 13)*

11	16-Feb	Membrane-Less Compartments
12	21-Feb	The Nucleus
13	23-Feb	Mitochondria, Lipid Droplets, Peroxisomes
	<b>28-Feb</b>	<b>MIDTERM 2 (Lectures 8-13)</b>

*problem set 5 (lectures 14 - 15)*

14	02-Mar	The Cytoskeleton
15	07-Mar	Molecular Motors

*problem set 6 (lectures 16 - 17)*

16	09-Mar	Cell Cycle
17	14-Mar	Cancer
18	16-Mar	Review
	<b>23-Mar</b>	<b>FINAL (Lectures 1-17)</b>

**Student Resources:** [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, located in University Center 202 behind Center Hall). Students are required to present their AFA letters to Faculty 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/>.

### Inclusion

I am committed to creating a learning environment that supports diversity of thought, perspective, experience, and identity. This is important, because key discoveries and significant progress in science requires addressing research questions from as many perspectives as possible. Please share your ideas on how to further promote inclusion with the Office of Equity, Diversity, and Inclusion: [diversity@ucsd.edu](mailto:diversity@ucsd.edu); <https://diversity.ucsd.edu/>

### Basic Needs

If food insecurities or a lack of a safe and stable place to live affect your learning, please contact:

[foodpantry@ucsd.edu](mailto:foodpantry@ucsd.edu) | [basicneeds@ucsd.edu](mailto:basicneeds@ucsd.edu)

### UC San Diego Academic policies

Principles of Community:

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

Student Conduct Code:

<https://students.ucsd.edu/files/student-conduct/ucsandiego-student-conduct-code-interim-revisions1-16-18.pdf>

Religious Accommodations:

<https://senate.ucsd.edu/operating-procedures/educational-policies/courses/epc-policies-on-courses/policy-exams-including-midterms-final-exams-and-religious-accommodations-for-exams/>

Community Centers:

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

Counseling and Psychological Services (CAPS):

<https://caps.ucsd.edu/>

Office for the Prevention of Harassment & Discrimination (OPHD): <https://ophd.ucsd.edu/report-bias/index.html>

**Subject to**

**Change Policy:**

The information provided in this course syllabus (with the exception of grading and absence policies) may be subject to change with reasonable advance notice, e.g. if required to meet student needs and/or to enhance student learning.