

BIBC 102 FALL 2022 SYLLABUS

Class Time and Location: Tu/Th 3:30 PM to 4:50 PM (CENTR 101). Lectures will be live and recorded (podcast). Attendance in person for the scheduled class is highly encouraged but NOT mandatory. Dr. Schmelz office hours (room and time, to be determined)

Instructor: Dr. Eric Schmelz

Email: eschmelz@ucsd.edu

Website: <https://canvas.ucsd.edu> (click on BIBC102 FA22)

SCHEDULE

WEEK	Lecture Material	Lehninger related chapters	PROBLEM SET DUE	DISCUSSION SECTION	EXAMS
0	Th 09/22: Lecture 1.1 Metabolic Concepts and Proteins	Ch 1-5 review, 6	None	None	
1	Tu 09/27: Lecture 1.2 Enzymes	Chapter 6	Problem Set 1	Mandatory	
	Th 09/29: Lecture 1.3 Bioenergetics and Metabolism I	Chapter 13			
2	Tu 10/04: Lecture 1.4 Bioenergetics and Metabolism II	Chapter 13	Problem Set 2	Mandatory	
	Th 10/06: Lecture 1.5 Glycolysis	Chapter 14			
3	Tu 10/11: Lecture 1.6 Glycolysis and Pentose Phosphate	Chapter 14, 15	Problem Set 3	Mandatory	
	Th 10/13: Lecture 2.1 Krebs Cycle I	Chapter 16			
4	Tu 10/18: MODULE 1, live in class EXAM (Lectures 1.1 - 1.6)			Optional	EXAM 1 Tu 10/18
	Th 10/20: Lecture 2.2 Krebs Cycle II	Chapter 16			
5	Tu 10/25: Lecture 2.3 Oxidative Phosphorylation I	Chapter 19	Problem Set 4	Mandatory	
	Th 10/27: Lecture 2.4 Oxidative Phosphorylation II	Chapter 19			
6	Tu 11/01: Lecture 2.5 Gluconeogenesis and Glycogen	Chapter 14,15	Problem Set 5	Mandatory	
	Th 11/03: Lecture 2.6 Amino Acids	Chapter 22			
7	Tu 11/08: <i>Review for Exam 2 and Discussion</i>		Problem Set 6	Mandatory	
	Th 11/10: MODULE 2 live in class EXAM (Lectures 2.1 - 2.6)				
8	Tu 11/15: Lecture 3.1 Lipid Catabolism	Chapter 17	Problem Set 7	Mandatory	
	Th 11/17: Lecture 3.2 Lipid Anabolism	Chapter 21			
9	Tu 11/22: Lecture 3.3 Nucleotides	Chapter 22		None	
	Th 11/24: THANKSGIVING HOLIDAY (NO CLASS)				
10	Tu 11/29: Lecture 3.4 Cancer and Aging		Problem Set 8	Mandatory	
	Th 12/01: Lecture 3.5 Metabolic Regulation, Diabetes and Obesity				
Finals	Monday 12/05 3:00-5:59 PM: MODULE 3 EXAM live in person (Lectures 3.1 - 3.5)			None	EXAM 3 Mon 12/05

TEXTBOOKS: Are optional. Exams will be based only on material covered in class & discussion sections. Most material is derived from: Lehninger Principles of Biochemistry (Nelson and Cox)

COURSE FORMAT INFORMATION SPECIFIC TO FALL 2022

To promote accessibility for all students, given that some may be unable to attend each lecture in person (and some may need to quarantine over the course of the quarter), the main lectures each week enable both in-person and remote learning opportunities. **Please note:** In the case of IAs or the instructor needing to quarantine, classes will continue over Zoom during that period.

LECTURES: Lectures will be given live in class and podcast. In person attendance for class during the main Tu/Th lectures are highly encouraged but NOT mandatory. Dr. Schmelz will hold additional office hours, these will be announced shortly.

INSTRUCTIONAL ASSISTANTS AND DISCUSSION SESSIONS

DISCUSSION SECTIONS:

IA name	Pronoun	email	Section	Day	Start	End	Time	Building	Room
Amman Klair	he/him	aklair@ucsd.edu	A01	M	8:00	8:50	AM	SEQUO	148
Amman Klair	he/him	aklair@ucsd.edu	A02	M	10:00	10:50	AM	SEQUO	148
Matt Clifton	he/him	mclifton@ucsd.edu	A03	M	1:00	1:50	PM	SEQUO	148
Verina Leung	she/her	vhleung@ucsd.edu	A04	W	8:00	8:50	AM	HSS	1128A
Christina Ho	she/her	chh021@ucsd.edu	A05	W	6:00	6:50	PM	HSS	2321
Tyler Lo	he/him	tzlo@ucsd.edu	A06	W	7:00	7:50	PM	HSS	2321
Rohit Ahuja	he/him	r1ahuja@ucsd.edu	A07	W	8:00	8:50	PM	HSS	2321
Connor Davies	he/him	crdavies@ucsd.edu	A08	W	9:00	9:50	PM	HSS	2321
Harnoor Sidhu	he/him	hsidhu@ucsd.edu	A09	F	12:00	12:50	PM	CSB	4

DISCUSSION SECTIONS: All section meetings are in-person format as indicated in the class schedule at the top of the syllabus. **Please specifically note the 8 weeks where DISCUSSION SECTIONS meetings are mandatory attendance (there is one exception for A09 on 11/11/22).** All students are required to attend and participate IN FULL for the discussion section meetings for which they are registered. Sections will meet for the first time during the first full week of the quarter (i.e. the week of Sept 26th to 30th). A 20-point problem set will be posted online for discussion in section meeting each week. Students are to complete the problem set prior to attending discussion section for the week to the best of their ability. All students must be prepared to contribute to section discussions. The basic policy and procedure will be that students are to upload their attempted effort as the assignment to Canvas **prior to** arriving to the assigned Discussion Sections. This creates a record of your relative effort prior to arriving and places a time stamp on it. You then will have the option of improving your responses/answers having discussed the topic with your fellow Discussion Section students and IAs. Your updated answers can then be re-submitted by Friday at 11:59 PM that same week which will constitute a final grade for the assignment. If very little or no pre-existing attempt at the assignment is made prior to your arrival in the Discussion Section, the maximal credit your IAs would assign would be 10 of 20 points. Why might this possibly happen? It might be because a student didn't meet the spirit of the assignment by coming in ready to discuss the problems or problems encountered.

GRADING

POSSIBLE EARNED POINTS FOR THE QUARTER:

40 points Discussion section participation
160 points Discussion section problem sets
300 points Exams

500 points Total

- Grades will be assigned based on points earned using the scale listed on the right.
- **Curving:** If necessary, all point cutoffs will be adjusted downward so that at least 50% of the class receives an A or B. Under no circumstances will point cutoffs be adjusted upward.

GRADING SCALE:

≥ 485 points (97%)	A+
≥ 450 points (90%)	A
≥ 435 points (87%)	A-
≥ 420 points (84%)	B+
≥ 400 points (80%)	B
≥ 385 points (77%)	B-
≥ 370 points (74%)	C+
≥ 350 points (70%)	C
≥ 335 points (67%)	C-
≥ 285 points (57%)	D
< 285 points (56%)	F

ASSESSMENT

DISCUSSION SECTION PARTICIPATION (40 POINTS): Discussion sections will begin the week of Monday, September 26th. Weekly discussion sections are important for your success in this course. They will help you develop your analysis and problem-solving ability that will be evaluated by the exams. Discussion sections also provide you with the opportunity to build relationships with fellow students and your Instructional Assistant. **Students are required to attend the 8 discussion section meetings for which they are registered.** You will receive 5 points for your active participation in each (8 x 5 = 40). **To obtain full points for participation, you need to attend for the full class period and actively participate in class discussion.**

PROBLEM SETS (160 POINTS): Eight required 20 point problem sets will be posted for each week as designated in the course schedule above. These problem sets are useful study materials, as they are designed to reinforce the learning objectives for each lecture and cover the primary concepts. Complete the problem sets to the best of your ability prior to your discussion section and then be prepared to contribute to discussing and working through the problems together in your discussion section meeting. The basic policy and procedure will be that students are to upload their attempted effort as the assignment to Canvas **prior to** arriving to the assigned Discussion Sections. This creates a record of your relative effort before to arriving and places a time stamp on it. You then will have the option of improving your responses/answers having discussed the topic with your fellow Discussion Section students and IAs. Your updated answers can then be re-submitted by Friday at 11:59 PM that same week which will constitute a final grade for the assignment. If very little or no pre-existing attempt at the assignment is made prior to your arrival in the Discussion Section, the maximal credit your IAs would assign would be 10 of 20 points. Why might this possibly happen? It might be because a student didn't meet the spirit of the assignment by coming in ready to discuss the problems or problems encountered. Please note: this description was intentionally listed twice in the syllabus in the hopes it was read and made clear.

You must submit your final problem set submission through Canvas by 11:59 PM on Friday the week that they are due. Eight problem sets will be assigned throughout the quarter for a total of 160 points (20 points each).

EXAMS (300 POINTS): There will be three equally weighted exams for the course, two midterms and a final exam, each worth 100 points. If your 3rd exam score is higher than either of your midterm scores, I will replace your lowest midterm score with the equivalent of your final exam score (e.g. If you earn an 84 on the first midterm, a 78 on the second midterm, and a 90 on the final, the exam scores I count for you would be 84, 90 and 90). **Exam 1 [(Tu 10/18: MODULE 1 EXAM (Lectures 1.1 - 1.6)] will be administered live in class during scheduled lecture. The same holds true for Exam 2 [Th 11/10: MODULE 2 EXAM (Lectures 2.1 - 2.6)] and Exam 3 [Monday 12/05 3:00-5:59 PM: MODULE 3 EXAM (Lectures 3.1 - 3.5)]. All 3 exams are live and in person.** What does this mean? 1) You will be best served by studying for the course material ahead of time, 2) You need to know where the room CENTR 101 is, 3) You need to show up in the class room before 3:30 PM, 4) You will need have a UCSD student ID card on your person to show your identity when you hand in your exam, 5) You will need to be ready to take the exam during the assigned class time (Exam 1 and 2: 3:30 PM to 4:50 PM). For exam#3, the specific room/location has not yet been officially assigned yet. **The three exams are NOT cumulative**, and exam questions will only cover material taught in class and in the discussion sections for each given module. In the rare and exceptional case that a make-up exam is justified, documented and must be administered, in fairness to the entire class, it WILL still be a live proctored (i.e. in person) exam and not conducted via zoom/Canvas. Exam questions may include combinations of multiple choice, matching and short answers.

COURSE POLICIES

COMPLIANCE WITH MANDATED COVID-19 SAFETY PRACTICES: Compliance with all UCSD COVID-19 mandated safety practices is essential to maintaining our collective capability to attend in person. In brief, all persons must be properly masked at all times in classrooms (instructional settings). You may not remove your mask to eat or drink in the classrooms. You must also complete and pass your daily symptom check prior to coming to classes in person; do not come to class in person if you are exhibiting any symptoms. You need to be mindful and respectful of others in your actions and compliance with safety mandates. Please be familiar with up to date UCSD guidance (<https://returntolearn.ucsd.edu/campus-guidelines/exposure-and-isolation/index.html>). Please notify your Instructor and Instructional Assistant if you are required to quarantine. In the uncommon situations of valid absence, accommodations will be made by the instructor and IAs where possible.

EXAMS: Exams 1 and 2 will be 80 minutes in length. Questions could include several types including multiple-choice, short answer questions, true/false, labeling structures and other types of questions. **All 3 exams are live and in person (i.e NOT Zoom).** There will be no make-ups for exams unless you provide documents for medical or family emergency with contact information. **You must contact the instructor about the situation before the exam.** Once you have taken an exam (or part of it), you will not be able to drop the score or negotiate a reduction of its impact on your grade for any reason. If you do not take the exam, your grade will be a zero.

Once exams have been graded, you will be able to view your score at the course website. Students for which the Office of Students with Disabilities have issued exam accommodation letters should present their letter at the beginning of the quarter or as soon as it is available. Please contact Dr. Schmelz at least one week prior to each exam to arrange for these UCSD approved accommodations.

ADMINISTRATIVE QUESTIONS: To drop/add a class or with other similar questions/issues, please contact the Biology Undergraduate Student Affairs Office.

UCSD POLICY ON ACADEMIC INTEGRITY: Cheating or academic dishonesty will not be tolerated, and all academic work will be completed by the student to whom it is assigned without assistance. As defined by UCSD policy, academic dishonesty includes:

- Taking an exam for another student or allowing another student to take an exam for you
- Copying another student's work on an exam or allowing another student to copy your work
- Seeking answers to exam questions on any website/social media platform, etc.
- Altering graded exams or assignments and submitting them for a regrade
- Communicating with other students during the exam
- Bringing answers or cheat sheets to the exam in note form or using a calculator, phone or other electronic device

Any student caught or suspected of cheating by doing one of the things on the list above will be reported to the UCSD Academic Integrity Coordinator and the Dean of the student's college. Confirmed cases of cheating on exams or altering an exam and submitting it for a regrade will result in the student receiving an automatic F as their final grade as well as other disciplinary actions determined appropriate by the Academic Integrity Coordinator.

UCSD STUDENT RESOURCES (not specific to this course)

UCSD COVID19-SPECIFIC INFORMATION AND RESOURCES FOR STUDENTS:

STUDENT AFFAIRS COVID19 INFORMATION: A broad website with links to resources for supporting students during these challenging circumstances, including (but not limited to) resources for: Student Retention and Success, Remote Student Employment, Preparing for Remote Learning, Academic Support, Internet and Technology Access, Remote Library Resources, Accommodations for Students with Disabilities, Student Health and Mental Wellness Services, and Information for International Students, <https://vesa.ucsd.edu/news/covid-19-info.html>

UCSD COVID19 GENERAL INFORMATION: <https://returntolearn.ucsd.edu/>

ASSISTANCE COPING WITH STRESS: If you are experiencing heightened feelings of anxiety, please contact Counseling and Psychological Services (CAPS), <https://caps.ucsd.edu/>

ACADEMIC SUPPORT RESOURCES:

- **Teaching and Learning Commons at UCSD:** <https://commons.ucsd.edu/>

- **Supplemental Instruction:** Scheduled sessions to support students in classes that many UCSD students find challenging. A list of supported classes and schedules may be found at: <https://aah.ucsd.edu/supplemental-instruction/>. **In this Fall 2022 quarter I could not find evidence of BIBC102 specifically supported in the Supplemental Instruction program.**

Content Tutoring offered by the Academic Achievement Hub (AAH) offers support for BIBC102 with schedules for both appointments and walk-ins (in person and online).

SEE: <https://aah.ucsd.edu/content-tutoring/index.html>

- **Writing and Critical Expression Hub:**
See <https://writinghub.ucsd.edu/> Writing mentors on staff (including some biology expertise and training in science writing) work with students to improve their writing skills while working on class writing assignments (e.g. lab reports!) and other writing projects. See their drop-in hours, and options for appointments.
- **OASIS:** Office of Academic Support and Instructional Services also offers tutoring, writing and mentoring support – see <https://oasis.ucsd.edu/> Each year, OASIS serves 3,000 students in language, math, science, study skills, and writing as well as peer counseling and peer mentoring. Located on the third floor of Center Hall, (858) 534-3760, oasis@ucsd.edu.

HEALTH AND COMMUNITY RESOURCES (IN ALPHABETICAL ORDER):

- **Black Resource Center:** a campus community center that serves everyone at UC San Diego while emphasizing the Black experience. Promotes scholarship, fosters leadership, and cultivates community through the committed, collaborative effort and support of faculty, staff, and the broader UC San Diego community. See <https://brc.ucsd.edu/>
- **Counseling and Psychological Services:** (CAPS) provides FREE, confidential, psychological counseling and crisis services for registered UCSD students. CAPS also provides a variety of groups, workshops, and drop-in forums. See <https://caps.ucsd.edu> and/or call (858) 534-3755.
- **Cross-Cultural Center:** strives for meaningful dialogues and context across all cultures, particularly those of underrepresented or underprivileged backgrounds. Offers supportive and educational services through art, social and educational programs, workshops, and outreach. Welcomes creative venues for enhancing social consciousness and equity. See <https://ccc.ucsd.edu/>
- **LGBT Resource Center:** provides a visible presence on campus and enhances a sense of connection and community among LGBT faculty, staff, students, alumni and the UC San Diego Community. See <https://lgbt.ucsd.edu/>
- **Office for the Prevention of Harassment & Discrimination (OPHD):** provides assistance to students with concerns about bias, harassment, and discrimination. UCSD is committed to upholding policies regarding nondiscrimination, sexual violence and sexual harassment. Students have options for reporting incidents of sexual violence (e.g. sexual assault, dating

violence, domestic violence, and stalking) and sexual harassment. Information about reporting options may be obtained at OPHD at (858) 534-8298, ophd@ucsd.edu, or <https://ophd.ucsd.edu>. Students may also receive confidential assistance at the Sexual Assault Resource Center at (858) 534-5793, sarc@ucsd.edu or <https://care.ucsd.edu/>

- Office for Students with Disabilities (OSD): works with students who have documented disabilities to provide reasonable accommodations. See <https://osd.ucsd.edu/> or call 858.534.4382 and/or email osd@ucsd.edu. Students in need of disability accommodations for a UCSD course must provide their instructor with a current Authorization for Accommodation (AFA) letter issued by OSD. If you have an AFA, please arrange to meet privately with me during the first week of the quarter so we can discuss your accommodation. If you have any questions or concerns about a disability, please discuss with me!
- Raza Resource Centro: a lively space where students study, meet, write, get tutoring, and most importantly are in community. It is a space where Latina/Chicano organizations hold meetings, events and where culture, art, and academics interconnect. See <https://raza.ucsd.edu/>
- Student Veterans Resource Center (SVRC): supports military-affiliated students in making the transition to campus life and facilitating their progress toward degree completion. The Center also provides opportunities for peer-to-peer support, mentoring and social networking. See <https://svrc.ucsd.edu/>
- Women's Center: serves as a resource for the entire campus community while placing the experiences of diverse women at the center through resources provided, programming and learning opportunities facilitated, and dynamic community space. See <https://women.ucsd.edu/>