BIBC 100 FALL 2019 SYLLABUS

Classroom and Time: CENTR 101; Tu/Th 12:30-1:50 PM
Instructor: Alisa Huffaker
Email: ahuffaker@ucsd.edu
Office hours: Thursdays 3:30 to 4:30; Muir Biology, room 1102
Website: http://ted.ucsd.edu (click on BIBC100 FA19)
Podcast: Video podcasts of each lecture will be available through TED

SCHEDULE

Lecture	Date		Topic	Text Reference
1	Sept. 26	Thurs.	Introduction	Lehn 2.1, 2.2
2	Oct. 1	Tues.	Amino acids and protein properties	Lehn 3; B&T 1, 2
3		3	Thurs.	Protein domains and structure	Lehn 4.1-4.3; B&T 3-5
4		8	Tues.	Protein folding and stability	Lehn 4.4; B&T 6
5		10	Thurs.	Chaperone-mediated folding	Lehn 4.4; B&T 6
6		15	Tues.	Nucleic acid biochemistry and structure	Lehn 8; B&T 7
7		17	Thurs.	Recognition I: Protein-DNA	B&T 8-10
8		22	Tues.	Recognition II: Immune system	Lehn 5.2; B&T 15
9		24	Thurs.	Oxygen binding proteins	Lehn 5.1; B&T 2
		29	**Tues.**	**Midterm (in class)**	
10	Oct. 31	Thurs.	Enzymes and catalysis	Lehn 6; B&T 11
11	Nov. 5	Tues.	Glycoproteins and carbohydrates	Lehn 7
12		7	Thurs.	Membrane lipids and structure	Lehn 10.2, 11.1-2
13		12	Tues.	Membrane proteins and channels	Lehn 11.3, 12.5-6; B&T 12
14		14	Thurs.	Signaling & receptors I	Lehn 12; B&T 13
15		19	Tues.	Signaling & receptors II	Lehn 12; B&T 13
16		21	Thurs.	Protein design and engineering	B&T 17, 18
17		26	Tues.	CRISPR/Cas9 structure	
		28	Thurs.	Thanksgiving (NO CLASS)	
18	Dec. 3	Tues.	CRISPR/Cas9 engineering	
19		5	Thurs.	Review	
		13	Fri.	**Final 11:30 AM - 2:29 PM, room TBA**	

TEXTBOOKS: Are optional. Lectures will cover much of the information in the readings listed on the schedule above. **Exams will be based only on material covered in class and discussion sections.** Both texts are available new & used from the UCSD bookstore and other sources.

- **Lehninger Principles of Biochemistry** (Nelson and Cox) – listed above as Lehn
- **Introduction to Protein Structure** (Branden and Tooze) – listed above as B&T

GRADING

POSSIBLE EARNED POINTS FOR THE QUARTER:

60 points	In class iClicker questions		
140 points	Discussion section problem sets		
150 points	Midterm		
250 points	Final		
600 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:

≥ 600 points	(100%)	A+
≥ 540 points	(90%)	A
≥ 522 points	(87%)	A-
≥ 504 points	(84%)	B+
≥ 480 points	(80%)	B
≥ 462 points	(77%)	B-
≥ 444 points	(74%)	C+
≥ 420 points	(70%)	C
≥ 402 points	(67%)	C-
≥ 384 points	(64%)	D+
≥ 360 points	(60%)	D
≥ 336 points	(57%)	D-

ASSESSMENT:

MIDTERM (150 POINTS): Tuesday, October 29th, in class. Covers material through October 22nd. Exam questions will only cover material taught in class and the discussion sections. For both the midterm and final exam, you will not be tested on material from either textbook if it was not discussed in class.

FINAL (250 POINTS): Friday, December 13th 11:30 AM – 2:29 PM, Location TBA. This is cumulative, but will strongly emphasize new material covered since the midterm.

DISCUSSION SECTION PROBLEM SETS (140 POINTS): Discussion sections will begin starting Tuesday, Oct. 1st. Required problem sets will be posted each week. These problem sets will be worked through together in discussion sections and handed into the Instructional Assistants at the end of each session. Eight problem sets will be assigned throughout the quarter for a total of 160 points. All students must complete at least 7 of these problem sets, and 140 of these points will be used to calculate final grades. Extra points may be earned for completing all 8 assignments, and will count as extra credit points (meaning you can earn a maximum of 20 additional points beyond the 600 allocated). Credit for completing the assigned problem sets can only be earned by turning your work in to the section in which you are enrolled. It is your responsibility to know your section, so please confirm! If illness or other circumstances prevent your attendance at a discussion section, you may turn in your completed problem set by email to the Instructional Assistant before class.

IN CLASS ICLICKER QUESTIONS (60 POINTS): Questions will be asked in class that will require your response using an iClicker. Answers will begin to count for credit in week 2, at which point you can earn a total of 1 point per question - ½ point will be earned via participation and a second ½ point will be earned for answering correctly. Cumulative totals of your clicker points will be uploaded to TED at the end of each week. After you have achieved the maximum possible 60 points, your point total will not continue to increase.

INSTRUCTIONAL ASSISTANTS AND DISCUSSION SESSIONS

DISCUSSION SECTIONS:

Section	Day	Time	Room	Instructional Assistant
A01	Tuesday	9:00 AM - 9:50 AM	HSS 1128A	Helen Khuu
A02	Tuesday	10:00 AM - 10:50 AM	HSS 1128A	Justin Yu
A03	Wednesday	11:00 AM - 11:50 AM	WLH 2112	Tobin Groth
A04	Wednesday	12:00 PM - 12:50 PM	WLH 2206	Yasman Zarabi
A05	Wednesday	5:00 PM - 5:50 PM	SOLIS 110	Amol Upadhyay
A06	Wednesday	6:00 PM - 6:50 PM	SOLIS 110	Carmela Villegas
A07	Thursday	8:00 AM - 8:50 AM	WLH 2114	Yasman Zarabi
A08	Thursday	5:00 PM - 5:50 PM	SEQUO 147	Tobin Groth
A09	Tuesday	5:00 PM - 5:50 PM	WLH 2114	Neb Getahun

INSTRUCTIONAL ASSISTANTS:

Neb Getahun	ntgetahu@ucsd.edu
Tobin Groth	tgroth@ucsd.edu
Helen Khuu	hkkhuu@ucsd.edu
Amol Upadhyay	a3upadhy@ucsd.edu
Carmela Villegas	clvilleg@ucsd.edu
Justin Yu	jdy002@ucsd.edu
Yasman Zarabi	yzarabi@ucsd.edu

Weekly discussion sections are critical to 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 discussion section for which they are registered.** Sections will meet for the first time in week 1 (Sept 30 – Oct 4). Each week a 20 point problem set will be posted online the Friday before the week it will be due. Students are encouraged to work on the problem set prior to attending discussion section for the week. All students must bring a print copy of the problem set to their discussion section and Instructional Assistants will review and explain the problem set each week. Students will hand in their problem set for grading at the end of each section meeting – **you will only receive credit for turning in your problem set at the section to which you are registered.** There will be a total of 8 problem sets, 7 of which will count towards your grade (the 8th will count as extra credit).

COURSE POLICIES

EXAMS

The midterm will be 80 minutes in length, and the final will be 3 hours long. Questions on the midterm will include several types of questions such as multiple-choice, short answer questions, drawing or labeling structures, true/false and other types of questions. The final exam will be entirely multiple-choice and will be graded by Scantron. You must complete exams in non-erasable ink to be eligible for a regrade (see "REGRADES" for more information below). **No calculators, cameras, cell phones or other electronic devices capable of storing information are allowed to be used during the exams. You must present your student ID when turning in your exam.**

There will be no make-ups for the midterm exam unless you provide documents for medical or family emergency with contact information. **You must contact the instructor about the situation before the exam** to discuss your options. 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. No student may take the final exam early for any reason.

Once exams have been graded, you will be able to view your score at the course website (Click on "Tools" in the course menu, and then on "My Grades"). After the quarter you will also be able to view your final exam score and final grade at this location.

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 me at least one week prior to each exam to arrange for accommodation.

REGRADES

If you discover an error in the grading of your exam, you may request a regrade by submitting your exam in class to either Dr. Huffaker or the Instructional Assistant for your section within one week of when the graded exams are made available. **To be eligible for a regrade, the exam must have been completed in non-erasable ink and you must attach and sign a cover page explaining the grading error. No requests will be considered after one week, except for correction of point addition errors.** Exams will be photocopied prior to returning them to students, and any exam handed in for a regrade will be checked against the original.

CLICKERS

You will need an iClicker for this class - any iClicker model is OK, but other clicker brands will not work. You can buy a new or used one at the UCSD Bookstore or another source. Your iClicker will need to be registered on TED to get credit for your in-class responses. To register, login and select BIBC100. In the menu block on the left side of the screen click on "iClicker Registration". Enter the identification (Serial) number from the back of your iClicker. If the serial number is illegible, bring your clicker to the instructor after class for help. iClickers only need to be registered once on TED - so you do not need to register again if you have already registered and used your iClicker for another class at UCSD. **Do not register at iClicker.com – this won't enter you into the TED database for UCSD classes!** If for some reason you need to switch your iClicker during the quarter, notify the instructor because the response records in TED won't sync with one another and will need to be manually reconciled.

The grading system already includes some allowances (you do not need 100% participation in iClicker questions to get the full credit). For this reason, no additional allowances will be given for occasional forgotten or malfunctioning clickers (e.g. dead batteries), absence from class (regardless of the reason), or for students who add the class late and missed some classes. It's your responsibility to make sure that your clicker works properly. There will be sufficient "extra" clicker questions for everyone to have the opportunity to earn the maximum of 60 clicker points even given any of the above circumstances.

ADMINISTRATIVE QUESTIONS

To drop/add a class or with other similar questions/issues, please go to the Biology Undergraduate Student Affairs Office, Pacific Hall, Room 1129.

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
- Altering graded exams or assignments and submitting them for a regrade
- Responding to clicker questions in class using another student's clicker
- Bringing answers or cheat sheets to the exam in note form or using a calculator, phone or other electronic device

If an IA sees a student using more than one clicker, both clickers will be confiscated immediately for the remainder of the class period.

Submitted exams will be photocopied before being returned to students. All exams handed in for regrading will be compared to the original.

Any student caught or suspected of cheating by doing one of the things on the list above (including those found using two or more clickers in class) 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)

ACADEMIC SUPPORT RESOURCES:
- Teaching and Learning Commons at UCSD: http://commons.ucsd.edu/students/index.html
- 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://commons.ucsd.edu/students/supplemental-instruction/index.html
- Triton Achievement Partners: Drop-in tutoring for lower division math and chemistry courses. https://commons.ucsd.edu/students/math-science%20tutoring/index.html#Math-and-Chemistry-Tutoring

- Writing and Critical Expression Hub: See http://commons.ucsd.edu/students/writing/index.html. 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://students.ucsd.edu/sponsor/oasis/ 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. http://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 http://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. http://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. http://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 http://ophd.ucsd.edu.   Students may also receive confidential assistance at the Sexual Assault Resource Center at (858) 534-5793, sarc@ucsd.edu or http://care.ucsd.edu.

- Office for Students with Disabilities (OSD): works with students who have documented disabilities to provide reasonable accommodations. See https://disabilities.ucsd.edu/about/index.html 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. http://raza.ucsd.edu/

- <u>Student Veterans Resource Center (SVRC)</u>: 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://students.ucsd.edu/sponsor/veterans/

- <u>Women's Center</u>: 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. https://women.ucsd.edu/

There are many other resources available to you on campus. If you want to know more about where you can go for support, please let me know and we'll work together to identify useful resources!