Course Syllabus

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CHEM 160: Introductory Biochemistry

Fall 2023

COURSE INFORMATION

Class Days: Tuesday/Thursday

Mode of Delivery: Face to Face

Class Times: 2:00-3:15 pm

Class Location: SH 101

Student Help Hours: Tuesdays at 3:45-4:45 via zoom

Meeting ID: 868 1011 4603
Passcode: 468840

https://SDSU.zoom.us/j/86810114603?pwd=eVFWMmdUZFh4a0dYKzNDZk9RYWRyUT09
(https://www.google.com/url?q=https://SDSU.zoom.us/j/86810114603?pwd%3DeVFWMmdUZFh4a0dYKzNDZk9RYWRyUT09&sa=D&source=calendar&usd=2&usg=AOvVaw3O_a1dalPz4bERohHdb9Gx)

Instructor: Dr. Christal Sohl

Contact: The best way to reach me is via **canvas** messaging and usually respond within 1 business day; I usually respond to email within 4 business days (**csohl@sdsu.edu (mailto:csohl@sdsu.edu)**)

Units: 3

DEGREE INFORMATION

Prerequisites: CHEM 130

This course fulfills: Major requirement: Foods and Nutrition, B.S.

Short description: Fundamental principles of the chemistry of life. This course is intended primarily for majors in nutrition and related fields. Not applicable for admission to the School of Nursing.

COURSE DESCRIPTION

Welcome to your introduction to my very favorite subject, Biochemistry! We will learn about the biomolecules that make

up life, and how we use these biomolecules to gain energy, perform chemical reactions, store genetic information, and more! Based on your interests, I've curated the material in this course to have a nutrition and/or human health focus, staying mindful of your future professional exams. This is a mostly flipped class, with lectures online and activities, brief lectures, and sample problems worked in class. There is a lot of information covered in this course, but I've organized it to keep you on track with regular homework, online lecture quizzes, reviews, and exams. It's normal to find most of this material new and to feel a little overwhelmed, but I am here to help you in your learning adventure! I also look forward to also learning from you – I think your chosen field is fascinating, and I love hearing your perspectives!

STUDENT LEARNING OUTCOMES (SLO)

1. Practice critical thinking.
2. Connect scientific concepts to your life and the world around you.
3. Discover that science is an ongoing endeavor and what we are learning is the foundation for research-based scientific advances.
4. Learn about scientists identifying from minoritized groups and how they have advanced our field.
5. Understand that life consists of a complex set of chemical processes, and integrate the roles that biomolecules have in these processes
6. Decide that you can help society in evaluating and disseminating accurate scientific information
7. Know the biological role of biomolecules, identify their building blocks, and apply their chemical characteristics to explain how they are suited for their role.
8. Understand the structure/function relationship of biomolecules, and use these features to make connects to other biomolecules.
9. Describe the central dogma, and how this sustains human life, function, and, in some cases, helps lead to disease.
10. Apply basic equations to assess energetics, buffering, and enzyme kinetics and inhibition.
11. Evaluate how class concepts are being used in the lab and in health fields.

ABOUT DR. SOHL (SHE/HER/HERS)

I study how proteins work – and how they run amok in cancer. My lab, made up of curious, kind, and hard-working undergraduate, graduate student, & postdoctoral scientists, works on the biochemical features of metabolic enzymes and polymerases that drive tumor growth. I know that our lab's diversity is our superpower, and I am a fierce advocate for broadening access to STEM and STEM careers. One of my favorite parts of my job as a professor is facilitating learning and discovery in the lab and classroom. I am grateful for the unique and diverse perspectives and expertise of my student colleagues! Finally, when not in the lab or classroom, I love to hike and paddleboard, tinker about in the garden, listen to music, and learn new languages at an unfortunately alarmingly slow and somewhat ineffective rate.

COURSE DETAILS

Required course materials: Using **canvas** during class (via a tablet/laptop) for accessing and submission of in class activities and exams is required. Please check canvas regularly! The **textbook** Essential Biochemistry, C. W. Pratt & K. Cornely (John Wiley & Sons, Inc.) is strongly suggested and provided via Immediate Access for a reduced cost. The Enhanced Ebook includes sample calculation videos, interactive exercises, and animated process diagrams. Some materials provided in a digital format are free through the add/drop date. Your SDSU student account will then be charged a special reduced price for use of the materials for the remainder of the semester unless you opt-out of the content by the add drop date. Please visit **www.shopaztecs.com/immediateaccess (http://www.shopaztecs.com/immediateaccess)** for additional information about Immediate Access pricing, digital

subscription duration, print add-ons, to opt out and to find frequently asked questions. A scientific **calculator** (with log and other types of functions) is required. Zoom with video access may be necessary. Please come see me as soon as possible if you foresee any issues with required materials– I look forward to working with you.

We need your perspective in this class: I want you to participate fully in the in-class activities and to engage in class discussions by contributing your ideas, perspectives, and questions. Every member of this class is vital – you bring a unique and valued set of ideas, expertise, and perspectives from which we all can learn and benefit!

I am committed to creating a supportive, safe, and multiculturally affirming environment for all: You all belong in this class, and I am grateful you are here! We should all arrive each day committed to creating a safe environment for learning that allows everyone to feel comfortable to respectfully contribute their thoughts and questions.

Attendance and absences: Lecture content is delivered online, and we will discuss, design, practice, and explore in person during class. Attendance is expected since this is neither an asynchronous nor a hybrid class. If you have a planned absence, contact me at least one week before the missed day to arrange dates for making up work. For an unexpected or emergency absence, contact me no later than two days after the missed deadline/class period to determine a strategy for moving forward. This strategy for addressing the missed class period will seek to honor a compromise between equitable solutions for your success in this course, the efforts of colleagues who turned in materials on time, and the instructor's investment of time in the course.

SDSU policy states that when a student is hospitalized or has a serious, ongoing illness or injury, **Student Health Services (http://shs.sdsu.edu/index.asp)** (SHS) will, at the student's request and consent, communicate with the student's instructors and may communicate with the student's Assistant Dean.

Classroom Norms: I expect you to attend class and participate actively in learning, and to help provide a positive, productive, and safe space for learning by being respectful to your colleagues and I. Please keep your devices on silent while in class and do not intentionally open sites that contain loud sounds or flashing lights. Please step out if you need to receive a phone call. If you need to use the bathroom, grab water, or take a break, you may do so without asking permission unless it is an exam day – in this case, you still don't need permission, but I ask that you leave your cell phone at the front of the classroom. If you need to bring in a child/young sibling to class as part of childcare responsibilities, need to breastfeed or tend to your child in other ways, you do not need permission for this.

Contact me immediately if you foresee or are experiencing challenges that threaten your success in this class: You and I are on the same team -- we both want you to be successful in this class and in your educational journal in general. Let's work together on strategies to keep you on track for success. I can usually work with you for just about anything imaginable that can come up – you just need to communicate to me about what you need as early as possible. It is my commitment to you that I provide a learning environment where everyone is able to participate. I look forward to working with you to ensure you have the tools you need for success.

Requesting letters of recommendation in the future: If you plan to ask for a letter of recommendation for professional schools, I can only write one if I feel I know you well enough to comment specifically and extensively on you and your potential. This includes coming often to help hours (i.e., I know who you are beyond your grade!), as these are one of the few ways I can get to know you. This is for your protection (letters focusing only on grades and other generic attributes tend to be seen as more negative than positive, even if you have a very high grade), and for mine to limit my letter writing to meaningful letters only (between students in my lab, teaching, and running a PhD preparation program at SDSU, I am typically writing >50 letters of recommendation annually). I never provide letters of recommendation until after I have submitted final grades, and there will be a survey you will need to complete if I accept your request for a letter.

DIVERSITY, EQUITY, INCLUSION, ACCESS, & JUSTICE COMMITMENT

Land acknowledgment: For millennia, the Kumeyaay people have been a part of this land. This land has nourished, healed, protected and embraced them for many generations in a relationship of balance and harmony. As members of the SDSU community, we acknowledge this legacy. We promote this balance and harmony. We find inspiration from this land, the land of the Kumeyaay.

Equity, justice, and access statement: I am firmly committed to social justice, diversity, equity, and inclusion, creating and maintaining an inclusive community in all areas of campus life, including specifically members of minoritized and historically excluded communities. In this class I will work to promote not simply a non-discriminatory, but an active anti-discriminatory environment where everyone feels safe and welcome. I recognize that discrimination can be direct or indirect and take place at both institutional and personal levels. I believe that such discrimination is unacceptable and I am committed to providing equality of opportunity for all by eliminating any and all discrimination, harassment, bullying, or victimization. The success of this policy relies on the support and understanding of everyone in this class. We all have a responsibility not to be offensive to each other, and to explicitly call out and stop harassment or discrimination of any kind.

Students with disabilities: If you are a student with a disability and believe you will need accommodations for this class, make sure to **contact the Student Ability Success Center (https://newscenter.sdsu.edu/student_affairs/sds/)** (SASC) at (619) 594-6473 as soon as possible. Please do note I cannot provide some types of accommodations (like increased exam time times) based upon disability until I have received an accommodation letter from Student Ability Success Center. However, you are not required to have documentation or a diagnosis to talk to me about how we can talk about your access needs to facilitate your participation in class! Please also come talk to me – I look forward to advocating for you so that you may enjoy the same access to this class that folks without disability enjoy.

Religious observances: By the end of the 1st week of class, notify me of any planned absences for religious observances, and then we can work together to reasonably accommodate students.

Safe zone statement: I am part of the Safe Zone Ally community network of trained SDSU faculty/staff/students who are available to listen and support you in a safe and confidential manner. As a Safe Zone Ally, I can help you connect with resources on campus to address concerns you may face that interfere with your academic and social success on campus as it relates to issues surrounding sexual orientation/gender identity. My goal is to help you be successful and to maintain a safe and equitable campus.

Undocumented & mixed status inclusivity statement: I and SDSU in general value diversity and are committed to creating and maintaining an inclusive community, which includes members of the Undocumented and Mixed Immigration status community. I will work towards promoting an anti-discriminatory environment, which may be direct or indirect that take place in the class, at the institution and on a personal level. I will treat your disclosure with the utmost confidentiality permitted and value your trust. I will work with you should you encounter barriers to your academic success.

Preferred name & gender pronouns: My preferred gender pronouns are she/her/hers. Class rosters are provided to me with only your legal name, and I will gladly honor your request to address you by an alternate name and/or gender pronoun. Please let me know so I may update my records.

ADDITIONAL RESOURCES AND POLICY

Safe learning environment: As an instructor, one of my responsibilities is to help create a safe learning environment on campus. I am required to share information regarding sexual violence on SDSU's campus with the **Title IX (http://titleix.sdsu.edu/)** coordinator, Gail Mendez (619-594-6464), who will contact you to let you know about SDSU support services and possibilities for holding accountable the person who harmed you. If you do not want the Title IX Officer notified, you can speak confidentially SDSU's Sexual Violence Victim Advocate (619-594-0210) or Counseling and Psychological Services (619-594-5220, **psycserv@sdsu.edu (mailto:psycserv@sdsu.edu)**). To be prepared for

emergencies, each student is responsible for becoming familiar with the evacuation plan specific to each classroom. The evacuation plan is posted within each classroom and should be examined on the first day of class. Campus police can be reached by dialing (619) 594-1991 or call 911 in the event of an emergency.

Mental health and wellness: I see and interact with you as bright, creative, and hard-working students in my class. However, I know that sometimes life's circumstances can be intense, and as a result, you may have a hard time prioritizing coursework due to mental health, economic stability, or other challenges. You're not alone -- we all experience periods at some point in our lives where circumstances demand too much of our mental resources. It is really tempting to disengage during these times, and not let anyone know you need help -- but please resist this temptation! It takes courage to reach out for help, and I and others on campus are here to help -- and we want to. This is because we know how much potential you have, and we want to empower you to ensure you can achieve anything you want! I've included a links below if you find you're grappling with things beyond the classroom (if it's course content...just ask me for help during class or request help hours!) You can also reach out to me, and I will help you connect to services you need. To prepare myself to better guide you to resources, I have trained to be an Adult Mental Health First Aid (MHFA) and Economic Crisis Response Team (ECRT) advocate. I'd be happy and honored to help you find help – I've done so for students in the past, and know I will for years to come.

- **Counseling and Psychological Services** (http://go.sdsu.edu/student_affairs/cps/Default.aspx) offers confidential counseling services by licensed therapists. Students can talk with a therapist by calling (619) 594-5220 between 4:00pm and 4:00pm. For after-hours services, students can call the San Diego Access and Crisis Line 24-hours a day at (888) 724-7240.
- **ECRT** (http://go.sdsu.edu/student_affairs/ecrt/Default.aspx) : If you or a friend are experiencing food or housing insecurity, or any unforeseen financial crisis, visit **sdsu.edu/ecrt** (http://go.sdsu.edu/student_affairs/ecrt/Default.aspx) or email **ecrt@sdsu.edu** (mailto:ecrt@sdsu.edu)

Student privacy and intellectual property: The **Family Educational Rights and Privacy Act** (http://bfa.sdsu.edu/hr/oerc/students/ferpa.aspx) (FERPA) mandates the protection of student information, including contact information, grades, and graded assignments. I will use Canvas to communicate with you, and I will not post grades or leave graded assignments in public places. Students will be notified at the time of an assignment if copies of student work will be retained beyond the end of the semester or used as examples for future students or the wider public. Students maintain intellectual property rights to work products they create as part of this course unless they are formally notified otherwise.

Resources for students: A complete list of all academic support services--including the **Writing Center** (http://writingcenter.sdsu.edu/) and **Math Learning Center** (https://mlc.sdsu.edu/) --is available on the Student Affairs' **Academic Success** (http://go.sdsu.edu/student_affairs/academic_success.aspx) website.

Academic Honesty: Students agree that by taking this class they will uphold the principles of academic integrity. Academic integrity is one of the fundamental principles of a university community. San Diego State University expects the highest standards of academic honesty from all students. Cheating and plagiarism represent violations of academic integrity and will not be tolerated in this class. **SDSU adheres to a strict policy prohibiting cheating and plagiarism** (http://go.sdsu.edu/student_affairs/srr/cheating-plagiarism.aspx) **. Examples of academic dishonesty include but are not limited to:**

- copying, in part or in whole, from another's test or other examination;
- obtaining copies of a test, an examination, or other course material without the permission of the instructor;
- collaborating with another or others during exams or other assignments intended to be based on individual assessment

- falsifying records, laboratory work, or other course data;
- submitting work previously presented in another course, if contrary to the rules of the course;
- altering or interfering with grading procedures;
- assisting another student in any of the above;
- using sources verbatim or paraphrasing without giving proper attribution (this can include phrases, sentences, paragraphs and/or pages of work);
- copying and pasting work from an online or offline source (including AI) directly and calling it your own -- this includes the use of ChatGPT and other resources to generate written information for this class as an example of academic dishonesty
- using information you find from an online or offline source without giving the author credit;
- replacing words or phrases from another source and inserting your own words or phrases.

The California State University system requires instructors to report all instances of academic misconduct to the Center for Student Rights and Responsibilities. Academic dishonesty will result in disciplinary review by the University and may lead to probation, suspension, or expulsion. Instructors may also, at their discretion, penalize student grades on any assignment or assessment discovered to have been produced in an academically dishonest manner.

Student concerns, problems, and complaints: If there are ever issues with the conduct of this course, including lectures, assignments, quizzes, etc., please see me immediately so we can work together to address your concerns. If we cannot resolve it, you must follow the appropriate **procedures for registering a complaint (https://sacd.sdsu.edu/student-ombudsman/procedures)** . Speak first to me, and if no resolution has been reached, contact the Dept. Chair. If you are still not satisfied, contact the Assistant Dean for Student Affairs (see College of Sciences contacts here: **https://sciences.sdsu.edu/deans-office-personnel/ (https://sciences.sdsu.edu/deans-office-personnel/)**). If still no resolution is met, you may contact the University Ombudsman. Students must exhaust informal levels of redress before filing a formal grievance with the **Student Grievance Committee (https://sacd.sdsu.edu/student-ombudsman/student-grievance-committee)** .

ASSIGNMENT DETAILS

Online lectures with embedded quizzes: You'll view lectures according to the schedule below and take the embedded quiz. All lectures are available for the duration of the module period, but I **strongly** recommend following the schedule in the calendar below so that you are prepared for in class assignments. Successful students have reported watching lectures more than once as a study strategy. I want you to be comfortable with the material, so you can take the embedded quizzes as many times as you like within the module deadline, and only the highest score is retained. These quizzes are open note. With the great flexibility in deadlines, I typically do not offer makeups. These can be an individual or group assignment, but you need to submit your own responses. These lectures are found on canvas. SLO #1,2,3,4,5,6,7,8,9,10,11.

Homework: To help you prepare for the exams, we will have regular homework. Homework is open note. Assignments are available from the start of the module to the end of the module, but I **strongly** recommend following the schedule in the calendar below to prepare for exams. Your learning growth will be recognized by allowing you to have two tries (highest score kept). You will work alone, and the homework is timed to mimic exam conditions. With the great flexibility in deadlines, I typically do not offer makeups. The homework is found on canvas. SLO #1,5,7,8,9,10

In-class assignments: You will apply the ideas and content presented in class and online lectures in discovery learning. You will work in groups and will submit their answers through canvas at the end of the activity period in class. These activities will be graded as all or nothing, depending on effort. These activities are found on canvas, so you must bring your laptop/tablet to class. These assignments are found in canvas. SLO #1,2,3,4,5,6,7,8,9,10,11

Exams: You will practice your new knowledge in in-class exams. These are individual assignments ONLY, and it is open book/note. However, you will not finish or be successful on the exams without studying lecture handouts, practicing example and homework problems, reviewing lectures, etc. Exams will require a calculator capable of log and other types of functions. You will take the exam in class via Canvas. See the absence policy below and let me know as soon as possible in the case of an unexpected/emergency absence. For known/planned absences, arrange with me for a makeup ahead of time. No makeups are allowed if 3 days since the exam has passed and you have not communicated with me to discuss the possibility of a makeup after an unplanned absence. Exam 1-3 makeups must be completed within 1 week of the exam date in all cases, and no makeups are allowed for the final due deadlines to submit final grades. The exams are found on canvas and will be locked until the start of class, and will be locked at the end of class. SLO #1,5,7,8,9,10

Reflections: In two reflections, you will be asked to reflect on ways in which what you've learned applies to your own lives, interests, hobbies, etc. This is an individual assignment. It has been shown that assignments that give you the freedom to put material within your own greater purpose and relevance boost motivation and interest. These reflections are found in canvas. SLO #2

Tentative information:

Online lectures with embedded quizzes: 110 points total (5 pts/lecture)

Homework: 272 points total (16 pts/homework)

In-class assignments: 210 points total (10 pts/assignment)

Exams: 640 points total (160 pts/exam)

Reflections: 30 points total (15 pts/reflection)

Tentative grading scale:

A = ≥ 92.5%

A- = 89.5-92.4%

B+ = 87.5-89.4%

B = 82.5-87.4%

B- = 79.5-82.4%

C+ = 77.5-79.4%

C = 72.5-77.4%

C- = 69.5-72.4%

D+ = 67.5-69.4%

D = 62.5-67.4%

D- = 59.5-62.4%

F < 59.4%

CLASS SCHEDULE

The following tentative schedule provides the topics, readings, and important dates. Changes to dates or content and

other important information will be communicated via Canvas announcements, so **please check canvas regularly.**

Date	Online Lecture: watch BEFORE coming to class	Class-based activity	Assignments due
Module 1: Energy, water, and DNA			
Aug. 22	No online lecture	In Class Chapter 0 Lecture	
Aug. 24	Chapter 1: Chemistry of life, energy, and origin of life	In Class Chapter 1 Lecture, gen chem/math review	· Online lecture quiz 1 due 8/27
Aug. 29	Chapter 2a: Water, H-bonds, hydrophobic effect	In Class Chapter 2a Activity and Problem set	· Online lecture quiz 2a due 8/28 · Chapter 1 Homework due 8/30 · In class activity 2a
Aug. 31	Chapter 2b: Acid-base biochemistry, buffers	In Class Chapter 2b Activity and Problem set	· Online lecture quiz 2b due 8/30 · In class activity 2b · Chapter 2 Homework due 9/3
Sep. 5	Chapter 3a: DNA, central dogma, Recombinant DNA technology	In Class Chapter 3a Activity and Problem set	· Online lecture quiz 3a due 9/4 · In class activity 3a · Reflection 1 due 9/5
Sep. 7	Chapter 3b: DNA, central dogma, Recombinant DNA technology	In Class Chapter 3b Activity and Problem set	· Online lecture quiz 3b due 9/6 · In class activity 3b · Chapter 3 Homework due 9/10
Sep. 12	Chapter 20: DNA replication and repair	In Class Chapter 20 Activity and Problem set	· Online lecture quiz 20 due 9/11 · In class activity 20 · Chapter 20 Homework due 9/13
Sep. 14		In-class review: Chapters 1-3, 20 (bring your questions!)	
Sep. 19	**Exam 1 (Chapters 1-3, 20). Bring your calculator (no phones!), your laptop/tablet for taking the exam on Canvas, and any materials you wish (notes, etc). Make sure you have the equation sheet handy that is provided in canvas.**		

Module 2: Amino acids, proteins, kinetics			
Sep. 21	Chapter 4a: Amino acids and protein structure	In Class Chapter 4a Activity and Problem set	· Online lecture quiz 4a due 9/20 · In class activity 4a
Sep. 26	Chapter 4b: Amino acids and protein structure	In Class Chapter 4b Activity and Problem set	· Online lecture quiz 4b due 9/25 · In class activity 4b · Chapter 4 Homework due 10/1
Sep. 28	Chapter 5: Protein function: hemoglobin and myoglobin, structural and motor proteins	In Class Chapter 5 Activity and Problem set	· Online lecture quiz 5 due 9/27 · In class activity 5 · Chapter 5 Homework due 10/1
Oct. 3	Chapter 6: How enzymes work	In Class Chapter 6 Activity and Problem set	· Online lecture quiz 6 due 10/2 · In class activity 6 · Chapter 6 Homework due 10/8
Oct. 5	Chapter 7: Enzyme kinetics and inhibition	In Class Chapter 7 Activity and Problem set	· Online lecture quiz 7 due 10/4 · In class activity 7 · Chapter 7 Homework due 10/8
Oct. 10		In-class review: Chapters 4-7 (bring your questions!)	
Oct. 12	**Exam 2 (Chapters 4-7). Bring your calculator (no phones!), your laptop/tablet for taking the exam on Canvas, and any materials you wish (notes, etc). Make sure you have the equation sheet handy that is provided in canvas.**		
Module 3: Lipids, membranes, signaling, and carbohydrates			
Oct. 17	Chapter 8: Lipids and membranes	In Class Chapter 8 Activity and Problem set	· Online lecture quiz 8 due 10/16 · In class activity 8 · Chapter 8 Homework due 10/22
	Chapter 9: Membrane transport	In Class Chapter 9 Activity and	· Online lecture quiz 9 due 10/18

Oct. 19	and fusion	Problem set	· In class activity 9 · Chapter 9 Homework due 10/22
Oct. 24	Chapter 10: Signal transduction	In Class Chapter 10 Activity and Problem set	· Online lecture quiz 10 due 10/23 · In class activity 10 · Chapter 10 Homework due 10/29
Oct. 26	Chapter 11: Carbohydrates and glycoproteins	In Class Chapter 11 Activity and Problem set	· Online lecture quiz 11 due 10/25 · In class activity 11 · Chapter 11 Homework due 10/29
Oct. 31		In-class review: Chapters 8-11 (bring your questions!)	
Nov. 2	**Exam 3 (Chapters 8-11). Bring your calculator (no phones!), your laptop/tablet for taking the exam on Canvas, and any materials you wish (notes, etc). Make sure you have the equation sheet handy that is provided in canvas.**		
Module 4: Metabolism			
Nov. 7	Chapter 12a: Metabolism and bioenergetics	In Class Chapter 12a Activity and Problem set	· Online lecture quiz 12a due 11/6 · In class activity 12a
Nov. 9	Chapter 12b: Metabolism and bioenergetics	In Class Chapter 12b Activity and Problem set	· Online lecture quiz 12b due 11/8 · In class activity 12b · Chapter 12 Homework due 11/12
Nov. 14	Chapter 13a: Glucose metabolism	In Class Chapter 13a Activity and Problem set	· Online lecture quiz 13a due 11/13 · In class activity 13a
Nov. 16	Chapter 13b: Glucose metabolism	In Class Chapter 13b Activity and Problem set	· Online lecture quiz 13b due 11/15 · In class activity 13b · Chapter 13 Homework due 11/19
Nov. 21	Chapter 14: TCA cycle	In Class Chapter 14 Activity and Problem set	· Online lecture quiz 14 due 11/20 · In class activity 14 · Chapter 14 Homework due 11/27

Nov. 23	***No class today; Happy Thanksgiving!***		
Nov. 28	Chapter 15: OxPhos	In Class Chapter 15 Activity and Problem set	· Online lecture quiz 15 due 11/27 · In class activity 15 Chapter 15 Homework due 12/3
Nov. 30	Chapter 17: Lipid metabolism	In Class Chapter 17 Activity and Problem set	· Online lecture quiz 17 due 11/29 · In class activity 17 · Chapter 17 Homework due 12/3
Dec. 5	_	In-class review: Chapters 12-13 (bring your questions!)	· Reflection 2 due 12/5
Dec. 7	_	In-class review: Chapters 12-15, 17 (bring your questions!)	
Dec. 14	**Exam 4 (Chapters 12-15, 17). Bring your calculator (no phones!), your laptop/tablet for taking the exam on Canvas, and any materials you wish (notes, etc). Make sure you have the equation sheet handy that is provided in canvas.**		

Course Summary:

Date	Details	Due
Sun Aug 27, 2023	**Chapter 1 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967016)**	due by 11:59pm
Mon Aug 28, 2023	**Chapter 2a Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967017)**	due by 11:59pm
Tue Aug 29, 2023	**Chapter 2a In class activity (https://sdsu.instructure.com/courses/130364/assignments/964957)**	due by 2:30pm
Wed Aug 30, 2023	**Chapter 1 Homework (https://sdsu.instructure.com/courses/130364/assignments/965006)**	due by 11:59pm
	Chapter 2b Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967018)	due by 11:59pm

Thu Aug 31, 2023	Chapter 2b In class activity (https://sdsu.instructure.com/courses/130364/assignments/964958)	due by 2:30pm
Sun Sep 3, 2023	Chapter 2 Homework (https://sdsu.instructure.com/courses/130364/assignments/965007)	due by 11:59pm
Mon Sep 4, 2023	Chapter 3A Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967210)	due by 11:59pm
Tue Sep 5, 2023	Chapter 3a In class activity (https://sdsu.instructure.com/courses/130364/assignments/964959)	due by 2:59pm
Wed Sep 6, 2023	Chapter 3B Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967885)	due by 11:59pm
Thu Sep 7, 2023	Chapter 3b In class activity (https://sdsu.instructure.com/courses/130364/assignments/964960)	due by 2:59pm
Sun Sep 10, 2023	Chapter 3 Homework (https://sdsu.instructure.com/courses/130364/assignments/965008)	due by 11:59pm
Mon Sep 11, 2023	Chapter 20 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/973883)	due by 11:59pm
Tue Sep 12, 2023	Chapter 20 In class activity (https://sdsu.instructure.com/courses/130364/assignments/973186)	due by 11:59pm
Tue Sep 19, 2023	Chapter 20 Homework (https://sdsu.instructure.com/courses/130364/assignments/973191)	due by 11:59pm
Wed Sep 20, 2023	Chapter 4A Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967991)	due by 11:59pm
Thu Sep 21, 2023	Chapter 4a In class activity (https://sdsu.instructure.com/courses/130364/assignments/964961)	due by 2:59pm
Mon Sep 25, 2023	Chapter 4B Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/967996)	due by 11:59pm
Tue Sep 26, 2023	Chapter 4b In class activity (https://sdsu.instructure.com/courses/130364/assignments/964962)	due by 2:59pm
Wed Sep 27, 2023	Chapter 5 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/968001)	due by 11:59pm

Thu Sep 28, 2023	Chapter 5 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964963)	due by 2:59pm
Sun Oct 1, 2023	Chapter 6 Homework (https://sdsu.instructure.com/courses/130364/assignments/967211)	due by 11:59pm
	Chapter 4 Homework (https://sdsu.instructure.com/courses/130364/assignments/965009)	due by 11:59pm
	Chapter 5 Homework (https://sdsu.instructure.com/courses/130364/assignments/965010)	due by 11:59pm
Mon Oct 2, 2023	Chapter 6 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/968004)	due by 11:59pm
Tue Oct 3, 2023	Chapter 6 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964964)	due by 2:59pm
Wed Oct 4, 2023	Chapter 7 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/969010)	due by 11:59pm
Thu Oct 5, 2023	Chapter 7 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964966)	due by 2:59pm
Sun Oct 8, 2023	Chapter 7 Homework (https://sdsu.instructure.com/courses/130364/assignments/965012)	due by 11:59pm
Mon Oct 16, 2023	Chapter 8 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/970768)	due by 11:59pm
Tue Oct 17, 2023	Chapter 8 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964967)	due by 2:59pm
Wed Oct 18, 2023	Chapter 9 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/972746)	due by 11:59pm
Thu Oct 19, 2023	Chapter 9 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964968)	due by 2:59pm
Sun Oct 22, 2023	Chapter 8 Homework (https://sdsu.instructure.com/courses/130364/assignments/965013)	due by 11:59pm
	Chapter 9 Homework (https://sdsu.instructure.com/courses/130364/assignments/965014)	due by 11:59pm

Mon Oct 23, 2023	Chapter 10 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/973882)	due by 11:59pm
Tue Oct 24, 2023	Chapter 10 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964969)	due by 2:59pm
Wed Oct 25, 2023	Chapter 11 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/972755)	due by 11:59pm
Thu Oct 26, 2023	Chapter 11 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964970)	due by 2:59pm
Sun Oct 29, 2023	Chapter 10 Homework (https://sdsu.instructure.com/courses/130364/assignments/965015)	due by 11:59pm
	Chapter 11 Homework (https://sdsu.instructure.com/courses/130364/assignments/965016)	due by 11:59pm
Tue Nov 7, 2023	Chapter 12a In class activity (https://sdsu.instructure.com/courses/130364/assignments/964971)	due by 2:59pm
	Chapter 12a Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/974833)	due by 11:59pm
Wed Nov 8, 2023	Chapter 12b Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/974798)	due by 11:59pm
Thu Nov 9, 2023	Chapter 12b In class activity (https://sdsu.instructure.com/courses/130364/assignments/964972)	due by 2:59pm
Sun Nov 12, 2023	Chapter 12 Homework (https://sdsu.instructure.com/courses/130364/assignments/965017)	due by 11:59pm
Mon Nov 13, 2023	Chapter 13a Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/974838)	due by 11:59pm
Tue Nov 14, 2023	Chapter 13a In class activity (https://sdsu.instructure.com/courses/130364/assignments/964973)	due by 2:59pm
Wed Nov 15, 2023	Chapter 13b Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/974879)	due by 11:59pm

Thu Nov 16, 2023	Chapter 13b In class activity (https://sdsu.instructure.com/courses/130364/assignments/964974)	due by 2:59pm
Sun Nov 19, 2023	Chapter 13 Homework (https://sdsu.instructure.com/courses/130364/assignments/965018)	due by 11:59pm
Mon Nov 20, 2023	Chapter 14 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/976048)	due by 11:59pm
Tue Nov 21, 2023	Chapter 14 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964975)	due by 2:59pm
Mon Nov 27, 2023	Chapter 14 Homework (https://sdsu.instructure.com/courses/130364/assignments/965019)	due by 11:59pm
	Chapter 15 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/976050)	due by 11:59pm
Tue Nov 28, 2023	Chapter 15 In class activity (https://sdsu.instructure.com/courses/130364/assignments/964977)	due by 2:59pm
Wed Nov 29, 2023	Chapter 17 Online Lecture with Embedded Quiz (https://sdsu.instructure.com/courses/130364/assignments/976051)	due by 11:59pm
Thu Nov 30, 2023	Chapter 17 In class activity (https://sdsu.instructure.com/courses/130364/assignments/973185)	due by 2:59pm
Sun Dec 3, 2023	Chapter 15 Homework (https://sdsu.instructure.com/courses/130364/assignments/965020)	due by 11:59pm
	Chapter 17 Homework (https://sdsu.instructure.com/courses/130364/assignments/965021)	due by 11:59pm
	Exam 1 (Chapters 1-3, 20) (https://sdsu.instructure.com/courses/130364/assignments/976405)	
	Exam 2 (Chapters 4-7) (https://sdsu.instructure.com/courses/130364/assignments/976406)	
	Exam 3 (Chapters 8-11) (https://sdsu.instructure.com/courses/130364/assignments/976407)	
	Exam 4 (Chapters 12-15, 17) (https://sdsu.instructure.com/courses/130364/assignments/976408)	