

BIBC102, METABOLIC BIOCHEMISTRY

Winter, 2022

INSTRUCTOR: Gen-Sheng Feng (858-822-5441; gfeng@health.ucsd.edu)

LECTURES: MWF; 9:00 - 9:50 am

OFFICE HOURS: MWF: 10:00 am – 11:00 am

COURSE WEBPAGE:

<https://canvas.ucsd.edu/courses/32248>

TEXTBOOK:

Lehninger's **PRINCIPLES OF BIOCHEMISTRY** by Nelson and Cox, 5th - 7th editions

ADMINISTRATIVE QUESTIONS:

Please contact Biology Undergraduate Student Affairs Office, Pacific Hall, Room 1129 for adding/dropping a class, etc.

UCSD POLICY ON ACADEMIC INTEGRITY:

All academic work will be done by the student to whom it is assigned without unauthorized aid of any kind.

EXAMS:

There will be two Mid-term and one Final Exams.

Each of the Mid-term is worth 25%, and the final worth 50% of the grade. Both scores will be included in the calculation of the final grade, and there is no extra credit.

All three exams will be based on lectures and assigned readings only.

The exams are closed book. Calculator, cell phone, camera, or any other electronic devices that are capable of storing information are not allowed to use during the exams.

Mid-term will be 50 minutes long and the Final will be 3 hours long.

There will be no make-ups for the Mid-term. If you do not take the mid-term, you will be assigned a zero unless you provide valid documents for medical or family emergency to the Instructor.

No one may take the Final Exam early.

The Final exam will be comprehensive and covers every lecture.

BIBC102, WI22, COURSE SCHEDULE:

Date	Lecture	Topic	Chapter
Jan 3	1	Introduction	1-2
Jan 5	2	Overview of Biomolecules	3, 7, 8, 10
Jan 7	3	Enzymes: Kinetics and Mechanism	6
Jan 10	4	Enzymes: Kinetics and Mechanism	6
Jan 12	5	Bioenergetics	13
Jan 14	6	Glycolysis	14
Jan 17	No class	Martin Luther King Day	
Jan 19	7	Glycolysis	14
Jan 21	8	Citric Acid Cycle	16
Jan 24	9	Citric Acid Cycle	16
Jan 26	Midterm 1	9:00 – 9:50a	
Jan 28	10	Oxidative Phosphorylation	19
Jan 31	11	Oxidative Phosphorylation	19
Feb 2	12	The Pentose Pathway	14
Feb 4	13	Gluconeogenesis, Glycogen	14, 15
Feb 7	14	Regulation of Glucose Metabolism	15
Feb 9	15	Photosynthesis	19
Feb 11	16	Lipid Degradation	17
Feb 14	17	Lipid Degradation	17
Feb 16	Midterm 2	9:00 – 9:50a	
Feb 18	18	Lipid Synthesis	21
Feb 21	No class	President's Day	
Feb 23	19	Lipid Synthesis	21
Feb 25	20	Amino Acid Oxidation & Urea Cycle	18
Feb 28	21	Amino Acid Oxidation & Urea Cycle	18
Mar 2	22	Amino Acid Synthesis	22
Mar 4	23	Amino Acid Synthesis	22
Mar 7	24	Nucleotides and Others	22
Mar 9	25	Integration of Metabolic Pathways	23
Mar 11	Review	Comprehensive review	
Mar 16	Final	8:00 - 10:59a	