

Biochemistry II (BIO/CHM 376)**Dr. Probal Banerjee****Spring 2023****Course Schedule**

Textbook: "Lehninger Principles of Biochemistry" by Nelson and Cox (Eighth Edition)
(also refer to "Fundamentals of Biochemistry" by Voet, Voet, Pratt)

Students are expected to read the lecture material prior to the lecture.

DATE	TOPIC	READING
Jan 25 (Wed)	Photosynthesis (Lecture 1 slides)	Part of Chapt. 20 (Qz1)
Jan 30 (Mon)	Gluconeogenesis, Pentose Shunt, & Pyruvate Carboxylase	Parts of Chapt. 14
Feb 1 (Wed)	Glycogen synthesis and breakdown, and Ketone bodies	Chapt.15, Part of 17 (Qz 2)
Feb 6 (Mon)	Carbohydrate Biosynthesis (the sequel to Photosynthesis) (Lecture 4)	Chapter 20 (Qz3)
Feb 8 (Wed)	Carbohydrate Biosynthesis; discussion on literature	Chapter 20
Feb 15 (Wed)	First Exam- Chapt. (Parts of 14, 17), 15, 20 (follow the slides and refer to the corresponding information in the text book)	
Feb 20 (Mon)	College Closed	
Feb 21 (Mon Sch)	Fatty Acid Biosynthesis	Chapter 21 (Qz4)
Feb 22 (Wed)	Lipid Biosynthesis	Chapter 21
Feb 27 (Mon)	Some aspects of Amino Acid Biosynth. & Hormonal regulation of mammalian metabolism	Parts of chapters 18, 22 and 23 (Qz5)
Mar 1 (Wed)	Continued Chapter 23	
Mar 6 (Mon)	DNA Structure and Organization	Chapter 24 (Qz6)
Mar 8 (Wed)	Mid term- Chapters 21, Parts of 18, 22, 23, 24	
Mar 13 (Mon)	DNA Metabolism: Replication, Repair, Recombination	Chapter 25 (Qz7)
Mar 15 (Wed)	DNA Metabolism (Continued)	Chapter 25
Mar 20 (Mon)	RNA Metabolism: Synthesis and Processing	Chapter 26 (Qz8)
Mar 22 (Wed)	RNA Metabolism	Chapter 26
Mar 27 (Mon)	Protein Metabolism	Chapter 27 (Qz9)
Mar 29 (Wed)	Protein Metabolism (continued)	Chapter 27
April 3 (Mon)	Regulation of Gene Expression	Chapter 28 (Qz10)
April 17 (Mon)	(Continued)	
April 19 (Wed)	Recombinant DNA Technology	Chapter 9 (Qz 11)
April 24 (Mon)	Continued	
April 26 (Wed)	Student Presentation:	
May 1 (Mon)	Student Presentation:	
May 3 (Wed)	Student Presentation:	
May 8 (Mon)	Student Presentation:	
May 10 (Wed)	Exam III (Chapters 25, 26, 27, 28, 9)	
May 15 (Mon)	Term Paper due by May 15	

There will be a familiarity quiz before every chapter. The students are expected to download lecture slides from Blackboard and read the slides ahead of class and familiarize themselves with the contents. While an in-depth understanding of contents will not be expected, **students will have to take a 15-minute quiz to show their preparation for the forthcoming lecture.** Class participation is highly encouraged. Seminar: Suggested topics will be posted on Blackboard ahead of time. It is mandatory for all students to be present on all seminar days. Each student should prepare two questions for the previous speaker. The first speaker should prepare questions for the last speaker of the series. Other students could also ask relevant and important questions. Each good question (judged by Dr. Banerjee) will earn 5 bonus points. Thus, any student could earn up to 20 bonus points.

Grading scheme: Quiz (averaged from eight best quiz grades) 100, Exam I 100, Midterm 100, Final Exam 100, Term Paper 150, Seminar 150.