

**MCB 450 Fall 2019 Course Lecture Syllabus**

Lecture Number & Date			Instructor	Lecture Topic	Chapters
1	Tu	27 Aug	Chen	Water; Non-Covalent Intermolecular Interactions; H-bonds, Ionization of Weak Acids & Bases; Titrations; pH	1,2
2	Th	29 Aug	Chen	Protein composition and structure	3-4
3	Tu	3 Sept	Chen	Digestion, absorption & metabolism	14-15
4	Th	5 Sept	Chen	Oxidative Phosphorylation	20,21
5	Tu	10 Sept	Chen	Amino acid metabolism	30,31
6	Th	12 Sept	Chen	Nucleotide metabolism	32
-	Tu	17 Sept	<b>REVIEW FOR EXAM 1</b>		
-	Th	19 Sept	<b>EXAM 1 7-9pm</b>		
7	Tu	24 Sept	Chen	DNA structure and replication	33-34
8	Th	26 Sept	Chen	DNA damage, Repair and Cancer	35
9	Tu	1 Oct	Chen	RNA structure and transcription	36
10	Th	3 Oct	Chen	Gene regulation	37-38
11	Tu	8 Oct	Chen	Protein synthesis	39-40
12	Th	10 Oct	Chen	Recombinant DNA technology and protein technology	5,41
-	Tu	15 Oct	<b>REVIEW FOR EXAM 2</b>		
-	Th	17 Oct	<b>EXAM 2 7-9pm</b>		
13	Tu	22 Oct	Kalsotra	Enzyme kinetics and regulation	6, 7
14	Th	24 Oct	Kalsotra	Membranes, cell signaling, and regulation of fuel metabolism	12, 13
15	Tu	29 Oct	Kalsotra	Principles of Metabolism; ATP and high-energy compounds; electron carriers	15

16	Th	31 Oct	Kalsotra	Glycolysis	16
17	Tu	5 Nov	Kalsotra	Glycogen synthesis and degradation	24, 25
18	Th	7 Nov	Kalsotra	Pentose Phosphate Pathway	26
-	Tu	12 Nov	-	<b>REVIEW FOR EXAM 3</b>	
-	Th	14 Nov	-	<b>EXAM 1 7-9pm</b>	
19	Tu	19 Nov	Kalsotra	Gluconeogenesis	17
20	Th	21 Nov	Kalsotra	The Pyruvate Dehydrogenase Complex and the Krebs cycle	18
21	Th	3 Dec	Kalsotra	Cholesterol and steroid metabolism	29
22	Tu	5 Dec	Kalsotra	Fatty acid synthesis; $\beta$ -oxidation; ketone bodies	27, 28
23	Tu	10 Dec	Kalsotra	Ethanol metabolism	Lecture notes
	Th	12 Dec	Reading Day-No Class		
	Fri	13 Dec	<b>Final Exam 8-11am Rooms TBA</b>		