

BIO98 - JAN 2019

SUN	MON	TUE	WED	THU	FRI	SAT
06	07	08	09	10	11	12
	<ul style="list-style-type: none"> • Syllabus • Expectations • Success in class • <i>READ THE SYLLABUS & CLASS WEBSITE</i> 		<ul style="list-style-type: none"> • Weak bonds <i>Review from Chem; Pg 53-55</i> • Water <i>Pg 47-53</i> • Functional groups <i>Pg 12-16</i> • Spontaneity of reactions <i>Pg 21-25, 496-500</i> 		<ul style="list-style-type: none"> • Reaction equilibrium • Determining spontaneity • Reaction coupling <i>Pg 21-25, 496-500</i> 	
13	14	15	16	17	18	19
	<ul style="list-style-type: none"> • Rate of reactions <i>Pg 25-28</i> • Enzymes and reaction rates <i>Pg 190-196</i> 		<ul style="list-style-type: none"> • Active sites, amino acids <i>Pg 75-85, 197-198</i> 		<ul style="list-style-type: none"> • Primary, secondary and tertiary structure of proteins <i>Pg 96-97, 117-124, 130-140</i> 	
20	21	22	23	24	25	26
	- HOLIDAY -		MID-TERM #1		<ul style="list-style-type: none"> • Quaternary structure, protein folding <i>Pg 141-142, 144-147</i> • Biological relevance of protein structure 	
27	28	29	30	31	1	2
	<ul style="list-style-type: none"> • Research in protein structures • <i>Have Chimera installed on your laptop, and download the .PDB files assigned to you</i> 		<ul style="list-style-type: none"> • Protein isolation and purification: salt precipitation, chromatography techniques, immunopptn. <i>Pg 89-92</i> 		<ul style="list-style-type: none"> • Separating proteins – PAGE, 2D gels and Westerns • Sequencing proteins <i>Pg 92-96</i> 	

BIO98 - FEB 2019

SUN	MON	TUE	WED	THU	FRI	SAT
03	04	05	06	07	08	09
	<ul style="list-style-type: none"> • Application of protein purification techniques <i>Pg 89-96</i> 		<ul style="list-style-type: none"> • Enzyme kinetics: MM equation <i>Pg 198-201</i> • Biological relevance of the enzyme parameters <i>Pg 201-204</i> 		<ul style="list-style-type: none"> • Enzyme inhibitors <i>Pg 206-210</i> • Drug development and design • Basic and applied research 	
10	11	12	13	14	15	16
	<ul style="list-style-type: none"> • Biological macromolecules – general principles, structure, functions • Carbs: <i>Pg 242-272</i> • Lipids: <i>Pg 361-381</i> • Nucleic acids: <i>Pg 279-285, 301-312</i> 		<ul style="list-style-type: none"> • Biological macromolecules – general principles, structure, functions • Carbs: <i>Pg 242-272</i> • Lipids: <i>Pg 361-381</i> • Nucleic acids: <i>Pg 279-285, 301-312</i> • Introduction to metabolism, and principles of regulation <i>Pg 575-582</i> 		<ul style="list-style-type: none"> • Glycolysis reactions <i>Pg 534-538, 550-553</i> • Gluconeogenesis reactions <i>Pg 558-564</i> 	
17	18	19	20	21	22	23
	- HOLIDAY -		<ul style="list-style-type: none"> • Regulation of glycolysis and gluconeogenesis <i>Pg 589-597</i> 		<ul style="list-style-type: none"> • Generation of AcCoA • Regulation of PDH <i>Pg 619-624</i> • Citric Acid Cycle <i>Pg 624-637</i> 	
24	25	26	27	28	01	02
	MID-TERM #2		<ul style="list-style-type: none"> • Citric Acid Cycle regulation <i>Pg 640-642</i> • ETC – Part 1, the ETC <i>Pg 711-726, 739-740</i> 		<ul style="list-style-type: none"> • ETC – Part 2, ATP Sythase <i>Pg 728-739</i> 	

BIO98 - MAR 2019

SUN	MON	TUE	WED	THU	FRI	SAT
03	04 <ul style="list-style-type: none"> • Photosynthesis – Part 1 <i>Pg 755-776</i> 	05	06 <ul style="list-style-type: none"> • Photosynthesis – Part 2 <i>Pg 780-798</i> 	07	08 <ul style="list-style-type: none"> • β-oxidation of lipids <i>Pg 649-661</i> • Synthesis of lipids <i>Pg 811-820</i> 	09
10	11 <p>MID-TERM #3</p>	12	13 <ul style="list-style-type: none"> • Starvation, diabetes, and regulation of lipid metabolism <i>Pg 661-664, 668-670, 935-938</i> 	14	15 <ul style="list-style-type: none"> • General principles of nitrogen metabolism for amino acids and nucleotides • Amino acids: <i>Pg 675-691, 860-869</i> • Nucleotides: <i>Pg 888-900</i> • Applications of metabolism research 	16
17	18	19	20	21	22 <p>FINAL EXAM</p>	23