

INTRODUCTION TO CHEMISTRY 32B –Spring 2009

Lecture/Laboratory Schedule

Instructor: Dr. Tyler Johnson; tjohnson@sjcc.edu;

Office Hrs: Monday: 3:45-4:45: and Wednesday 12:15-1:15 pm.

My mailbox: In reprographics, SJCC (leave message)

Text: General, Organic and Biochemistry, Bettelheim, Brown, and March, , 7th ed., 2004, Thomson-Brooks/Cole; (a) Chime molecular modeling exercises and (b) Laboratory manual.

Lecture M/W: 10:45-12:10 PM in S-205 & Lab: M 12:40-3:45 PM in S-205 (computer) or S211 (lab).

<u>Week of</u>	<u>Page No. In Text</u>	<u>Chapter & Lab</u>	<u>Topics</u>
<i>January</i>			
26	704-719	<u>29</u>	Nutrition and Digestion
			LAB: <i>Lab check-in, Safety Contract, Safety Video Worksheet and Quiz</i> Introduction to Chime Tutorial: Problem Exrcs.- http://c4.cabrillo.edu/index.html ; http://c4.cabrillo.edu/projects/chime_tutorial/html/index.htm
28	70-83 269-282	<u>3</u> <u>10</u>	<i>Chemical Bonds</i> (Review) <i>Organic Chemistry</i>
<i>February</i>			
2	286-309 Lab #2 Lab #3	<u>11</u>	<i>Alkanes</i> “Chemical Models: Ball & Stick Models of Organic Compounds” (14-24) http://c4.cabrillo.edu/chem30b/exercises/chpt_11_060700/index.html
4	286-309	<u>11</u>	<i>Alkanes</i>
9	314-337 Lab #4	<u>12</u>	<i>Alkenes (and Alkynes)</i> <i>“Reactivity of Hydrocarbons” (25-33) & begin Lab # 5</i> LAB: Due Prelab before Quiz #1 (3, 10-11)
11	314-337	<u>12</u>	<i>Alkenes (and Alkynes)</i>
16	HOLIDAY!!!		No class or lab
18	Exam I: Chapters 29, 3, 10-12		

<i>February</i>			
23	343-355 Lab #5	<u>13</u> http://c4.cabrillo.edu/chem30b/exercises/chpt_12_061200/index.html	<i>Benzene & Its Derivatives</i>
25	343-355 359-377 Lab #6	<u>13</u> <u>14</u> http://c4.cabrillo.edu/chem30b/exercises/chpt_13_062499/index.html	<i>Benzene & Its Derivatives, cont'd</i> <i>Alcohols, Ethers, and Thiols</i>
<i>March</i>			
2	419-432 Lab #7	<u>17</u> http://c4.cabrillo.edu/chem30b/exercises/Chpt_14_021400/index.html Quiz #2 (13-14)	<i>Aldehydes and Ketones</i>
4	419-432	<u>17</u>	<i>Aldehydes and Ketones, cont'd</i>
9	Exam II: Lab #8	Chapters 13, 14 and 17 "Pharmaceuticals and Thin Layer Chromatography" (34-42)	
11	382-398	<u>15</u>	<i>Chirality: The Handedness of Molecules</i>
16	382-398 403-414 Lab #9	<u>15</u> <u>16</u> Stereochemistry: http://c4.cabrillo.edu/chem30b/exercises/S5_Stereoisomers/html/S5%20Stereoisomers_page1.html	<i>Chirality: The Handedness of Molecules</i> <i>Amines (N-containing cpds.)</i>
18	403-414 Lab #10	<u>16</u> http://c4.cabrillo.edu/chem30b/exercises/Chpt_16_022600/index.html	<i>Amines (N-containing cpds.)</i>
23	438-459 Lab #11	<u>18</u> http://c4.cabrillo.edu/chem30b/exercises/Chpt_15_061400/index.html Quiz#3 (15-16)	<i>Carboxylic Acids, Anhydrides, Esters, and Amides</i>
25	438-459	<u>18</u>	<i>Carboxylic Acids, Anhydrides, Esters, and Amides</i>
30	466-489	<u>19</u>	<i>Carbohydrates</i>
<i>April</i>			
1	Exam III:	Chapters 15, 16, and 18	
6-8	~ Spring Break!!! ~		<i>Biochemistry</i>
13	466-489 525-549 Lab #13 Pre-lab Lab #12	<u>19</u> <u>21</u> "Carbohydrates: Identification and Analysis" (75-81) Due before lab. http://c4.cabrillo.edu/chem30b/exercises/Chpt_17_071299/index.html http://c4.cabrillo.edu/chem30b/exercises/S6_Carbohydrates/html/S6_Chime_Complement1.html	<i>Carbohydrates, cont'd</i> <i>Proteins (and amino acids)</i>

15	525-549	<u>21</u>	<i>Proteins (and amino acids), cont'd</i>
20	525-549	<u>21</u>	<i>Proteins (and amino acids), cont'd</i>
	596-617	<u>24</u>	<i>Nucleotides, Nucleic Acids and Heredity</i>
	Lab #15		“Aspartame: The Study of a Peptide Bond” (67-74)
	Lab #14		http://c4.cabrillo.edu/chem30b/exercises/Chpt_19_033000/index.html & insulin tutorial, http://c4.cabrillo.edu/projects/insulin_tutorial/index.html
	Quiz #4 (19, 21)		& Video: Protein Synthesis
22	596-617	<u>24</u>	<i>Nucleotides, Nucleic Acids and Heredity cont.</i>
27	Exam IV: (Chapters 19, 21, 24)		
	Lab #16		http://c4.cabrillo.edu/chem30b/exercises/Chpt_21_040300/index.html
	Lab #17		http://c4.cabrillo.edu/chem30b/exercises/Chpt_20_032000_enzymes/index.html
	Video: DNA Replication		
29	620-641	<u>25</u>	<i>Gene Expression and Protein Synthesis</i>
	553-568	<u>22</u>	<i>Enzymes</i>
May			
4	494-521	<u>20</u>	<i>Lipids</i>
	Lab #19		“The Properties and Preparation of Esters and Soaps” (43-66) &
	Lab #18		http://c4.cabrillo.edu/chem30b/exercises/Chpt_18_060200/index.html
	Pre-lab		Due before lab
6	494-521	<u>20</u>	<i>Lipids cont.</i>
11	666-687	<u>27</u>	<i>Specific Catabolic Pathways: Carbohydrate, Lipid and Protein Metabolism, cont'd Bioenergetics:</i>
	Lab #20		http://c4.cabrillo.edu/chem30b/exercises/Chpt_23_030400/index.html
	Quiz #5 (25,22,20)		
	Lab Check-out		
13	666-687	<u>27</u>	<i>Specific Catabolic Pathways: Carbohydrate, Lipid and Protein Metabolism, cont'd Bioenergetics:</i>
	Lab #21		http://c4.cabrillo.edu/chem30b/exercises/Chpt_22_071999_Energy/index.html
18	Review		
20	Final Exam: (Chapters 20,22,25,27)		

NOTE: This schedule is preliminary and may fluctuate slightly by the end of the semester.