

CHM 527 BIOCHEMISTRY LABORATORY, Tentative Schedule, Fall 2010 (subject to change)

<u>Date</u>	<u>Lab</u>	<u>Reading</u>	<u>Assignment Due</u>
Getting Started in Biochemistry – The Basics			
8/26	Drawer Check-in; Basic Overview of Biochemistry techniques; Review of pH	Chapter 2	
9/2	Spectrophotometry; Experiments 3-1 through 3-4	Chapter 3	Chapter 2; #2-1 thru 2-8
Protein Purification and Analysis			
9/9	Quantification of Protein Concentration; Experiment 4-1	Chapter 4	Exp. 3-2, #3-1 thru 3-6; Exp. 3-3, #3-8 thru 3-10; Exp. 3-4, pH of unknown
9/16	Chromatography; Experiments 5-1 and 5-2	Chapter 5	Exp. 4-1; Concentration of unknowns for each method
9/23	Gel Electrophoresis of Proteins; Experiment 6-1	Chapter 6	Exp. 5-1, #5-5 thru 5-6; Exp. 5-2, #5-7 thru 5-9
9/30	Isolation and Characterization of the Enzyme Alkaline Phosphatase from <i>Escherichia coli</i> ; Experiment 9-3, First Day and Continuous Assay of Alkaline Phosphatase	Chapter 9 (Read Chap. 7 and 8)	Exp. 6-1, #6-1 thru 6-3
10/7	Isolation and Characterization of the Enzyme Alkaline Phosphatase from <i>Escherichia coli</i> ; Experiment 9-3, Second Day and Continuous Assay of Alkaline Phosphatase	Chapter 9	
10/14	Isolation and Characterization of the Enzyme Alkaline Phosphatase from <i>Escherichia coli</i> ; Experiment 9-3, Third Day and Continuous Time Assay of Alkaline Phosphatase	Chapter 9	
10/21	Isolation and Characterization of the Enzyme Alkaline Phosphatase from <i>Escherichia coli</i> ; Experiment 9-4, Characterization of Purified Alkaline Phosphatase, SDS-PAGE and protein quantitation	Chapter 9	
Enzyme Kinetics			
10/28	Enzyme Kinetics; Experiments 10-1 and 10-2	Chapter 10	Exp. 9-3, Purification Table; Exp. 9-4, Gel Description
11/4	Enzymatic Methods of Analysis; Experiments 12-1 through 12-3	Chapter 12	Exp. 10-1, Calc. 1-3; Exp. 10-2, Calc. 1-3

Recombinant DNA Techniques

11/11	Recombinant DNA Techniques; Experiment 13-1	Chapter 13	Exp. 12-1, #12-1 thru 12-3; Exp. 12-2, #12-5 thru 12-8; Expt. 12-3, Concentration of ethanol unknown and #12-9
11/18	Recombinant DNA Techniques; Experiments 13-2, 13-3, and beginning of 'modified' Experiment 14-1	Chapter 13 Chapter 14	Expt. 13-1, Step 5 in Procedure
11/25	Thanksgiving – No Class		
12/2	Recombinant DNA Techniques and PCR Technology; Experiment 13-4 and Finish Experiment 14-1; Drawer checkout	Chapter 14	Expt. 13-2, Step 5 in Procedure