

## CHEM 326: BIOCHEMISTRY LABORATORY Fall 2009

**INSTRUCTORS:** Dr. Sandra L. Turchi and Dr. Aimee Miller

**LABORATORY PERIODS:** Labs are scheduled for Tuesday, Wednesday and Thursday each week in Caputo 225.

**LABORATORY MANUAL:** Internal publication. You must have goggles and a Quadra-ruled bound notebook.

**OBJECTIVES:** Students will conduct experiments that illustrate concepts and techniques associated with biochemistry. Techniques will include those important to synthesis, isolation, purification, analysis and characterization of biological molecules. The importance of biologically relevant small molecules and biomacromolecules will be stressed.

**ATTENDANCE** Make-up labs will not be given except under the most extreme conditions and only with *prior* arrangement with and approval by the instructor.

**PUNCTUALITY** The introduction for the lab is given during the first 15 minutes and includes important supplementary information and any modifications for performing the experiment as well as vital safety information. You should be in lab at the designated time not to miss any information.

**PRELAB QUESTIONS** Prelab questions for each experiment can be found at the beginning of each experiment in the lab book and **MUST** be completed **PRIOR** to the lab. They should part of the experimental write up for each lab. They should come before the formal lab write up in your lab notebook. You will not be able to begin lab until the prelab questions are completed. If you do not understand the questions, we will be happy to help you *before the morning of the laboratory period*.

**LAB REPORTS EVALUATION:** Evaluation of laboratory performance will be based on Lab notebooks. (13x10pts each). **Lab notebooks are to be handed in by 4 P.M. on the day after your lab session. No lab books will be accepted late unless prior permission has been given.**

**POST LAB QUESTIONS** Postlab questions are to turned in as part of your lab report.

### GRADING FOR LABORATORY COMPONENT

Laboratory experiments reports	(13 x 10pts)	130pts
Prelab questions	(13 x 5pts)	65pts
Postlab questions	(13 x 5pts)	65pts
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Total points for lab		260pts

## Tentative Laboratory Schedule

<u>WEEK of</u>	<u>Experiment</u>
	<b>Check-In and</b>
September 1,2,3	Exp. #1: Use of Pipettors
September 8,9,10	Exp. #2: Spectrophotometry & Solution Chemistry
September 15,16,17	Exp. #3: Acids,Bases,pH,Buffers
September 22,23,24	Exp. #4: Properties of Amino Acids
Sept 29,30,Oct 1	Exp. #5: Methods of Protein Measurements
October 6,7,8	Exp. # 6: Exclusion Chromatography
October 13,14,15	NO LAB
October 20,21,22,	Exp. #7: Protein Electrophoresis
October 27,28,29	Exp. #8: Western Blot
November 3,4,5,	Exp. #8: Western Blot-Finish and perform Exp. #9: Dialysis
November 10,11,12	Exp. #10: Enzyme Kinetics
November 17,18,19,	Exp. #11: Carbohydrates
November 24,25,26	NO LAB: THANKSGIVING BREAK
December 1,2,3	Exp. #12: Cellular Respiration
December 8,9,10	Exp. #13: Lipids: Soap Preparation

**CHECK-OUT**