

## CHEM 326: BIOCHEMISTRY LABORATORY Spring 2012

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

**LABORATORY PERIODS:** Labs are scheduled for Tuesday 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 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 and approval by the instructor. ***All labs must be completed to pass the course.***

**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 so as 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 be 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. (see point distribution below). **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 be 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

WEEK	Experiment
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<b>Check-In</b> and	
Jan 24,26	Exp. #1: Use of Pipettors
Jan 31, Feb 2	Exp. #2: Spectrophotometry & Solution Chemistry
Feb 7,9	Exp. #3: Acids,Bases,pH,Buffers
Feb 14,16	Exp. #4: Properties of Amino Acids
Feb 21,23	Exp. #5: Methods of Protein Measurements
Feb 28,Mar1	Exp. # 6: Exclusion Chromatography
Mar 6,8	Exp. #7: Protein Electrophoresis
Mar 13, 15	NO LAB: WEEK OF SPRING BREAK
Mar 20,22	Exp. #8: Western Blot
Mar 27,29	Exp. #8: Western Blot-Finish
April 3,5	Exp. #9: Dialysis
April 10,12	Exp. #10: Enzyme Kinetics
April 17,19	Exp. #11: Carbohydrates
April 24,26	Exp. #12: Cellular Respiration
May 1,3	Exp. #13: Lipids: Soap & Beauty cream Check Out