

**Chemistry 1721/1821**  
**General Chemistry 2 Laboratory Syllabus**  
**Spring Semester 2014**

<b>Week</b>	<b>Date</b>	<b>Experiment #</b>	<b>Assignment</b>
1	Jan. 14 – 16	15	Check In; Graphing Exercise Review
2	Jan. 21 – 23	18	Structures of Molecules and Solids (bring your model kits to lab)
3	Jan. 28 – 30	16	Enthalpy of Vaporization of a Liquid
4	Feb. 4 – 6	17	Freezing Point Depression
5	Feb. 11 – 13	19	Reaction Rates
6	Feb. 18 – 20	20	Rate Law for the Iodine Clock Reaction
7	Feb. 25 – 27	21	Determination of an Equilibrium Constant
<i>Spring Break</i>	<i>March 4 – 6</i>		<i>no lab meeting this week</i>
8	March 11 - 13	25	Solubility of Calcium Iodate
9	March 18 – 20	22	Acid-Base Strength of Salts
10	March 25 – 27	23	Buffers and Potentiometric Titration
11	April 1 - 3	24	Determination of $pK_a$ of an Acid-Base Indicator
12	April 8 – 10	26	Thermodynamics and Equilibrium
13	April 15 – 17	27	Electrochemical Cells
14	<i>April 22 – 24</i>		<i>no lab meeting this week</i>
15	April 30 – May 2		Check Out

**Notes:**

1. Come prepared each week for lab. Study the assigned lab procedure and relevant appendices. Obtain any needed table data (molar masses, etc.). Make procedural notes and data/observation tables in your notebook. All of this should be done before coming to the lab. The instructor may give a quiz at the start of the lab session.
2. Write down all primary data and observations directly in your lab notebook, not in your manual, report sheet, or extra papers. Also in the notebook, answer questions that are asked in the manual procedures and show calculations needed for the report sheet. Notebooks will be graded weekly (1 point per week).
3. A completed report sheet for the experiment should be returned to the TA at the end of the lab period unless otherwise notified. Your report grade will be based on the correctness of any calculations, including significant figures, the quality of your results, and the answers to any questions.
4. Safety goggles are to be worn in the laboratories at all times, unless the instructor specifically notes otherwise (e.g., during prelab lectures or quizzes). In particular, if any student is conducting an experiment, all students in the lab must have on goggles.
5. Lab quizzes will be given throughout the semester at the instructor's discretion. A missed lab period, report, and quiz will be counted as "0". If you must miss a lab for medical reasons or for a University-approved function, contact your instructor *before the lab* and arrange to make up the lab that week in another section. Labs cannot be made up in weeks following their assigned time. **More than 2 unexcused absences from the lab will result in a failing grade for the semester.**
6. Points earned in lab make up 10% of your Chem 1721/1821 grade. Lab point distribution is as follows:

Lab Notebooks	13 points
Report Sheets	127 points
Lab Quizzes	60 points
<b>Total</b>	<b>200 points</b>