

## CHEMISTRY 213 - LABORATORY SCHEDULE

Spring 2017

**TEXT/MATERIALS:** Laboratory worksheets and POGIL handouts are available on the Blackboard website. Lab manual: *CHEM 213*, Fountainhead Press (2016); ISBN 978-1-68036-296-1.

**REQUIRED EYE PROTECTION:** Students must wear the approved goggles issued by the department *at all times in the laboratory—NO EXCEPTIONS*.

Week of:	EXPERIMENT
1. Jan. 23 <sup>rd</sup>	<b>CHECK-IN / SAFETY ORIENTATION</b> : Safety in the Laboratory; Glassware & Equipment/Data Representation and Recording
2. Jan. 30 <sup>th</sup>	Determining Solubility of an Unknown Salt at Various Temperatures
3. Feb. 6 <sup>th</sup>	Colligative Properties of Solutions - Freezing Point Depression
4. Feb. 13 <sup>th</sup>	Reaction Kinetics – Determining a Rate Law
5. Feb. 20 <sup>th</sup>	Chemical Equilibrium and Le Chatelier's Principle
6. Feb. 27 <sup>th</sup>	Determining $K_{eq}$ for Iron Thiocyanate by Spectrophotometry
7. Mar. 6 <sup>th</sup>	<b>LAB MIDTERM EXAM</b>
8. Mar. 13 <sup>th</sup>	<b>SPRING BREAK</b>
9. Mar. 20 <sup>th</sup>	Determining the Acid Dissociation Constant, $K_a$ , for a Weak Acid
10. Mar. 27 <sup>th</sup>	Determining $K_{sp}$ of Lead(II) Iodide
11. Apr. 3 <sup>rd</sup>	Qualitative Analysis of a Group of Anions
12. Apr. 10 <sup>th</sup>	Estimation of Absolute Zero
13. Apr. 17 <sup>th</sup>	Electrochemical Cells and the Nernst Equation / <b>CHECK OUT</b>
14. Apr. 24 <sup>th</sup>	<b>LAB FINAL EXAM</b>

**\*FAILURE TO CHECK OUT MAY RESULT IN A FAILING GRADE FOR THE ENTIRE SEMESTER.**

**Grading:** The overall lab grade is a weighted average, and is calculated using the formula below:

$$(\text{Lab average} \times 0.70) + (\text{Midterm Exam} \times 0.15) + (\text{Final Exam} \times 0.15) = \text{lab grade}$$

Letter grades are assigned based on the overall lab grade compared to the following cutoffs:

$$90\% = A; \quad 80\% = B; \quad 70\% = C; \quad 60\% = D; \quad <60\% = F$$