

**Analysis of Equilibrium Systems Laboratory I**  
**CHEM 2040 1**  
**Winter Quarter, 2002**

Laboratory Schedule

**Location:** F. W. Olin Hall, Room 235

**Teaching Assistants:**

Cullen Jones  
 SGM 184  
 303-871-4404

Mitch Williams  
 SGM 167  
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**Text:** "Exploring Chemical Analysis", 2<sup>nd</sup> Edition, by D. C. Harris. This is the text for lecture and laboratory. You should bring it to laboratory each session, along with your binder of laboratory experiments.

Week of	Experiment	Report due week of
1/7	Discussion and video of quantitative laboratory techniques and tools. Discussion of lab safety. Brief check-in. Be sure glassware is clean!	none
1/14	Determination of the Equilibrium Constant for Formation of Fe (SCN) <sup>2+</sup>	1/21
1/21*	Using Excel to work up data	1/28
1/28	EDTA Titration of Ca <sup>2+</sup> and Mg <sup>2+</sup> in Water	2/4
2/4	pH of Solutions of Acids and Bases	2/11
2/11*	Base Titration of a Strong Acid and Determination of Acetic Acid in Vinegar	2/18
2/18*, 2/25*	Solubility of Copper (II) Iodate, Cu(IO <sub>3</sub> ) <sub>2</sub>	2/25 (brief) 3/4 (full)
3/4	Lab final - brief written and practical exam	none

\* Students are requested to bring their laptop computer to lab.

- You may only do the laboratory experiment during the section for which you are registered.
- The report from the prior week's experiment is due at the *beginning* of your lab section. The maximum possible points for a lab report decreases by 10% for each day that a report is late. Lab reports will not be accepted more than one week after the due date.
- You are expected to read and understand the laboratory procedure before class.
- Each week there will be a few questions to answer in advance and turn in to your TA at the *beginning* of lab. You may not start the lab until you have turned in your prelab.
- For most experiments it should be possible to complete most of the calculations before leaving the lab; this is strongly encouraged. For some experiments you will be expected to compare results with those of other members of your lab section. Those results should be available at the end of the lab period.