

Quantitative Chemistry Laboratory – Chemistry 340

Fall 2019

Weekly Schedule

This schedule is subject to change

Week	Date	Activity
1	Aug 29	Readings: Introduction to the Analytical Laboratory (pp. 1-10) Chapter 5-7 (SWHC) Experiment: <i>The Lab You Can Eat</i> (p. 13)
2	Sept 5	Readings: <i>Basic Statistics (Maybe Even Simplified)</i> (handout)
3	Sept 12	Readings: Chapter 13 (SWHC) Chapter 14A (SWHC) Chapter 16 (SWHC) Analysis: <i>Acid/Base Titrations</i> (p. 13)
4	Sept 19	Readings: Chapter 20B,20C-3 (SWHC) Analysis: <i>Iodometric Determination of Vitamin-C</i> (p. 29)
5	Sept 26	Readings: Chapter 12 (especially 12C-3) (SWHC) Analysis: <i>Gravimetric Analysis of Cl</i>
6	Oct 3	Catch up, clean up, and PreLab: <i>Modern Sample Preparation</i>
7	Oct 10	Readings: Chapter 24A – 24C(SWHC) Analysis: <i>Introduction to Microwave-Assisted Digestion and the Determination of the Manganese in Steel</i> (p. 81) (Use Method of Standard Additions)
8	Oct 17	Readings: Chapter 10, 11,15 (SWHC) Experiment: <i>The pH Meter: Determination of Apparent pK_a and Molar Mass of a Compound</i> (p. 47)
9	Oct 24	Readings: Chapter 10 (SWHC) Experiment: <i>Determination of the Thermodynamic Solubility Product, K_{sp}°</i> (p. 41)
10	Oct 31	PreLab: <i>Introduction to Potentiometric Measurements: The Nernst Equation</i>
11	Nov 7	Analysis: <i>Determination of Mixed Halides by Potentiometric Titration</i>

Week	Date	Activity
12	Nov 14	Readings: Chapter 30, 32 (SWHC) Analysis: <i>Determination of analgesics in an OTC medication by HPLC</i>
13	Nov 21	Readings: Chapter 30, 31 (SWHC) Analysis: <i>Analysis by Gas Chromatography</i>
14	Nov 28	Thanksgiving Holiday
15	Dec 5	Clean up day.

You will be allowed to use one (1) drawer for personal storage. You may store your books, lab coat, samples for analysis, or whatever, but you may have only one (1) drawer. It is not secure storage: don't leave anything valuable there. There will also be a shared cabinet for desiccators and other larger equipment for your use.

You must practice good housekeeping in the laboratory since there will be many users in the laboratory besides yourselves. The lab instructor will "clean up" unlabeled, unattended, or otherwise messy areas (you have been warned). Proper labeling and storage techniques will be observed. **Laboratory tidiness is graded.**

Replacement "unknowns" will cost 10% of the report score for that analysis unless otherwise notified.