

LECTURE SCHEDULE

<i>Date</i>	<i>Chapter*</i>	<i>Topic</i>
8/27		Class organization and requirements
8/29	0,1	Introduction to Chemical Analysis
9/3	3	Errors in Measurements, Propagation of Uncertainty
9/5	4	Coping with Random Error (distributions)
9/10	4	Interpreting Data from a Few Measurements
9/12	5	Linear Least Squares, Calibration Methods
9/17	28	Sampling and Standards
9/19	6,8	Quantitative Chemical Reactions and Equilibria
9/24	9	Acid-Base Reactions and Equilibria
9/26		Catch-up and review session
10/1		Hour Exam 1 (in class)
10/3	9	Acid-Base Equilibria, Graphical Methods
10/8	10	Polyprotic Acids, Bases, and Buffers
10/10	7,11	Acid-Base Titrations
10/22	12	Metal-ion Complexation Reactions and Titrations
10/24	14	Oxidation-Reduction Reactions
10/29	14	Electrochemical cells
10/31	16	Redox Titrations
11/5	15	Potentiometry and ion-selective electrodes
11/7		Catch-up and review session
11/12		Hour Exam 2 (in class)
11/14	18,19	Spectrophotometric Methods of Analysis
11/19	18,20	Introduction to Spectroscopy
11/21	21	Atomic Spectroscopy, theory
11/26	21	Atomic Spectroscopy, applications
12/3	23	Introduction to Chemical Separations
12/5	24	Gas-Liquid Chromatography
12/10	25	High Performance Liquid Chromatography
12/12		Catch-up and review session

12/18 WEDNESDAY, 10:30AM - 12:30PM Comprehensive Final Exam

* Chapters refer to D. C. Harris (no relation), *Quantitative Chemical Analysis*, Seventh Edition Freeman: New York, 2006. ISBN: 0716770415.

Note: Homework is due at the beginning of lecture. Papers need to be submitted in class to be graded. E-mailed or FAX'd homework papers will be discarded. Late papers will be returned ungraded.

LABORATORY SCHEDULE

<i>Week</i>	<i>M, T Activity</i>	<i>W, Th Activity</i>
9/2	Labor Day Holiday	Check -in, work on Excel Homework; see your TAs if you need help.
9/9	Exp. 1. Review of Basic Operations	Exp. 1. Review of Basic Operations
9/16	Exp. 1. Review of Basic Operations	Exp. 1. Review of Basic Operations
9/23	Exp. 2. Applied Acid-Base Titrations	Exp. 2. Applied Acid-Base Titrations
9/30	Exp. 3. Redox Titration of Iron in Ore	Exp. 3. Redox Titration of Iron in Ore
10/7	Exp. 4. Spectrophotometric Determination of Iron in Vitamins (both periods)	
10/14	Fall Break	Fall Break
10/21	Rotation of Exps. 5 - 8	Exp. 5 Inductively-Coupled Plasma Emission
10/28	Rotation of Exps. 5 - 8	Exp. 6 Gas Chromatography
11/4	Rotation of Exps. 5 - 8	Exp. 7 High Performance Liquid Chromatography
11/11	Rotation of Exps. 5 - 8	Exp. 8 Multicomponent Spectrophotometric Analysis
11/18	Special Project	Special Project
11/25	Special Project	Thanksgiving Holiday
12/2	Special Project	Special Project, Check out
12/9	Special Project Oral Reports	Special Project Report due

Note: Special Project Abstract due Tuesday, October 8, 12:30 PM (in class)

Note: Special Project Proposal due Tuesday, October 29, 12:30 PM (in class)

Note: Special Project Reports due in Friday, December 13, 5:00 PM (JMH Office)