

CHM 122 Laboratory Schedule
Spring '05

Experiment Dates	Experiment Title	Experiment Sections	Pages to Read in Text/Online
Jan. 21-27	Safety Video and Computational Chemistry: Conformational Analysis of Ethane and Butane (bring ThinkPad & network cable; install Spartan '04 Essential prior to lab)	handout	25-37, Appendix 3 of Carey text A67-A71
Jan. 28-Feb. 3	Check-in (*Glassware) and *Distillation (for 5.6, use 30 mL) <i>work in pairs</i>	5.4A (p.93), 5.6 (Fig. 5.11)	80-85, 92-96, *
Feb. 4-10	Separation and Identification of Components of a Pain Killer (Panacetin) *Rotary Evaporation, *Extraction, and *Filtration	handout	pp. 46-8 on gravity filtration, *
Feb. 11-17	*Crystallization	3.2 (p.59) and Panacetin unkn	38-49, 63, handout, *
Feb. 18-24	*Melting Points (microscale)	4.1 and Panacetin unkn	65-70, handout, *
Feb.25-Mar. 3	*Column Chromatography and *Thin-Layer Chromatography <i>work in pairs</i>	handout	171-3, 156-160, *
Mar. 4, 14-17	*Infrared Spectroscopy (analysis of unknown carbonyl compounds) <i>and</i> Nuclear Magnetic Resonance Spectroscopy (analysis of unknown alkyl halides)	p. 213 n/a	194-215, handout, * 216-234
Mar. 18-24	Lab Quiz 1 (through chromatography experiments) <i>and</i> Computational Analysis of Carbocation Intermediates in the Pinacolone Rearrangement <i>and</i> Pinacolone Rearrangement (1/5 macroscale)	handout (bring TP, etc) 63.3	n/a 688-9
Mar. 28-Apr. 1	Alkenes from Alcohols; *Gas Chromatography <i>work in pairs</i>	11.1 (p.190)	184-188, *
Apr. 4-8	Diels-Alder Reaction	handout	Carey pp. 409-411
Apr. 11-15	Friedel-Crafts Alkylation	handout	Carey pp. 473-7 and 481-3
Apr. 18-22	Check out/Lab Quiz 2		

*See online information at <http://www.wfu.edu/~kingag/122L> prior to lab.

Textbook: Williamson, *Macroscale and Microscale Organic Experiments*, 4th Ed.

Notes: All experiments will be performed on the **macroscale** unless otherwise indicated.