

# CHEMISTRY 251.06

## Winter 2009

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**Office hours** W 11-12 am, Th 2-3 pm and by appointment

**Lab Time:** Monday & Wednesday, 2-5 pm in AS 1515.

**Lecture Time:** Tuesday 2-2:50 pm in ED 2841

**Required Text:** "Introduction of Organic Laboratory Technique, A Microscale approach", Pavia, Lampman, Kriz & Engel 4th ed. (PLKE)

**Prerequisite:** CHE 241

**Graded material:**

- Exam #1 80 pts
- Exam #2 100 points
- Practical exam- 40 pts
- Laboratory reports-9 labs 20-40 pts each
- Notebook 30 pts. Graded in the middle and at the end of quarter.
- Instructor Evaluation 30 pts. Entails preparedness, lab clean up, lab safety.

**Exam schedule:**

- Exam #1 Wednesday Feb 11 (1<sup>st</sup> hour of lab in room 1614A)
- Exam #2, Wednesday March 18, (1<sup>st</sup> hour of lab in room 1614A)
- Practical exam Monday, March 16

**Grade calculations** – To approximate your grade during the quarter assume: Lab reports, notebook and instructor evaluation; 90% ~ 3.0. Exams 80% ~ 3.0.

**LABORATORY REPORTS.** For all experiments there will a 'report guide' posted on the website. For most labs you will write a formal report (see website for a description). Other experiments you will simply report the results of your experiments & answer questions. The report (both types) will be due 1 week from completion of the experiment.

**PRELABS:** Before the experiment begins a prelab must be written in your lab notebook and a photocopy of the prelab must be turned in at the beginning of lab.. A prelab will consist of 5 components: 1) The Purpose of the experiment (see formal report description on website). 2) A brief summary of the lab procedure. 3) A sketch of any new glassware that you will be using in the experiment. 4) Waste disposal protocol 5) Prelab questions that may be assigned. The questions will be given during the lab lecture and need to be answered before the lab begins.

**LAB NOTEBOOKS:** Purchase a **bound** notebook at the bookstore. Spiral notebooks are not acceptable. All prelabs should be written in your notebook. When performing an experiment, write down the procedure as you do it and note all observations. During all times in the lab, you must have your lab notebook open and you must record data/observations in real time, i.e. as you see it. A good lab notebook is one that would allow another person to replicate the experiment using only your notebook. Please read the section on 'Lab Notebooks' (Technique 2 pg 558) in your Text.

**Miscellaneous:**

I will lecture on each lab during the Tuesday lecture hour (2-3 pm). During these lectures I may assign prelab question to be answered before the next lab meeting. You are responsible to obtain notes from a fellow student if you miss a lecture.

You cannot miss an exam or make up a lab. If you have extenuating circumstances that prevent you from taking an exam at the assign time, please let me know as soon as possible of your situation.

**Lab schedule** Note: All experiments (Exp) are from the lab text book (PLKE) or handouts located at the website

<b>Monday</b>	<b>Wednesday</b>	
<b>Jan 5</b> Check in	7 Safety map & solutions (handout)	
12 Solubility PLKE #2 parts A-D, E1	14 Solubility continued	
19 No Lab MLK day	21 NMR Day! (handout)	
26 Crystallization PLKE #3 parts A & B	28 Crystallization continued	
<b>Feb 2</b> Extraction PLKE #4 Part A, B and D	4 Extraction continued	
9 Acetylsalicylic acid PLKE #8	11 <b>EXAM #1</b> (2-3 in AS1614) Ethanol synthesis (handout)	
16 No Lab-Presidents day	18 Ethanol continued	
23 Biodiesel (handout)	25 Biodiesel continued	
<b>March 2</b> Chromotography PLKE 5 part A & C	4 A Separation and Purification Scheme PLKE #55	
9 PLKE 55 continued	11 PLKE 55 continued	
16 Practical exam	18 <b>EXAM #2</b> (2-3 in AS1614) Checkout	

