

CHEM 2124 Spring 2016 Syllabus, Friday 8:30 am-11:20 am

CCSB Rooms: 1.0506 (CRN: 24018) & 1.0508 (CRN: 24911)

Instructor of Record: Dr. Saideh Mortazavi (ssmortazavi@utep.edu)

Office hours: Fri, 11:30 am-12:30 pm and by appointment

TA: Xian Yuejiao (yxian@miners.utep.edu)

Office: CCSB G.0512

Office hours: Fri, 11:30 am-12:30 pm

TA: Aliasghar Alizadehmojarad (ali.alizadehmojarad@gmail.com)

Office: CCSB 3.0174

Office hours: Thr, 12:30 am-13:30 pm

Textbook: Experimental Organic Chemistry, A Small-Scale Approach, 2nd Ed. Wilcox/
Wilcox (available as used)

Course Objectives:

- Becoming familiar with basic organic chemistry methods and techniques
- Learning how to comply with laboratory safety policy
- Learning how to follow proper chemical waste disposal procedures

Your grade will consist of:

- 30% attendance
- 30% laboratory quizzes and 10% final exam
- 30% group laboratory reports

Grade cutoff: A > 89.5 %, B > 79.5 %, C > 69.5 %, D > 59.5 %

Students who miss a lab for an unexcused reason will lose 100% of the credit for that week. No makeup labs or makeup quizzes are provided for an **unexcused absence**, and you will not receive credit for a group report submitted for a week that you miss. However, for an **excused absence**, your TA may offer the makeup lab at another time she runs a lab or offer the makeup lab in another section with another TA which you can attend. Your TA and you will need to arrange for the grading to be transferred to your TA by the other TA.

All students are expected to have read the information about each lab in the Wilcox/Wilcox text book in advance, so you should be fully prepared for the weekly quiz during the pre-lab, and for the laboratory activity of that day (please see the detailed schedule below). Therefore, students are expected to know about the day experiment and the structures of the chemicals they are working with as well as the previous experiment. **Your weekly quiz covers questions from your previous lab as well as questions from your current lab.**

Students will form **groups of two** to conduct the lab experiments. Each group will maintain a laboratory notebook in which each lab will be described. The laboratory notebook will come in handy when writing the lab report. The TA will grade each group lab report and an easy 30% of the total grade can be obtained by following the **Lab Report Guideline**.

Experiment-Date	Activity-Chapter	Quiz	Report
Jan 29	Laboratory Safety and check in		
Exp 1 (Feb 5)	Melting Points (8.4 A)	1	
Exp 2 (Feb 12)	Crystallization (8.4 B, C, or D)	2	1
Exp 3 (Feb 19)	Simple and Fractional distillation (5.4 A & B)	3	2
Exp 4 (Feb 26)	Extraction (9.7 B & D) and Sublimation (8.3)	4	3
Exp 5 (Mar 4)	Chromatography (10)	5	4
Mar 7-11	No Lab (Spring Break)		
Exp 6 (March 18)	SN1 reaction / t-butyl chloride (18.3 C)	6	5
Mar 25	No Lab		
Exp 7 (Apr 1)	Chemical Kinetics (20.4)	7	6
Exp 8 (Apr 8)	Synthesis of Aspirin (49.2 A)	8	7
Exp 9 (Apr 15)	E1 Reaction / Cyclohexene (21.5)	9	8
Exp 10 (April 22)	Synthesis of Isopentyl Acetate (modified 30.2 A)	10	9
Exp 11&12 (April 29)	IR spectroscopy (13) NMR Spectroscopy (15)	11	10
May 6	Final Exam and Check Out		11&12

Note that **hoods and benches are labeled** and your group of two will always work in the same hood/bench. All chemical activities are done in the hood. The bench is for maintaining your notebook and supplies for your activity. Please make sure that labeled equipment remains in the hood or on the bench that matches that labeling.

Safety Rules:

The basic safety rule in this course is that **Safety goggles and lab coats must be worn in the lab at all the times**. If you do not have Goggles, or refuse to wear them, you will not be allowed to participate in the lab.

Waste Information:

- None of the waste can go down the drain.
- Organic solvent waste (Halogenated and Non-Halogenated), aqueous waste, toxic heavy metals, solid waste, and glass waste are collected separately and placed into designated waste containers (**ask your TA**). There is a specific blue bin for your gloves disposal. You are expected to dispose gloves properly.
- You are not permitted to leave the lab for the day without properly disposing of chemical waste and without cleaning up your station including your hood and your bench top.