

## Syllabus, Chemistry 431-01 Fall 2008

### Instructor Information

Instructor name: Dr. Thomas Junk

Time of class: 1:00-5:00 p.m. W

Office hours: see below

Instructor's e-mail: [chjunk@ulm.edu](mailto:chjunk@ulm.edu)

Room of class: CNSB 243 (lecture) and 241

Instructor's office: CNSB 112

Office phone: 342-1830

My schedule	Mo	Tu	We	Th	Fr
8:00-8:50 a.m.	230-03		230-03		230-03
9:00-11:00 a.m.	Office hr*	Office hr*	Office hr*	Office hr*	Office hr*
1:00-2:00 p.m.			431-01 (prelab)		
2:00-5:00 p.m.	231-01		431-01 (lab)	231-06	
5:00-6:00 p.m.			230 Review*		

\* Additional time available by appointment.

\*\* No reviews held during the first week of class. Location for review sessions TBA. Timing flexible to accommodate exams and teaching schedules. Participation not mandatory.

### Content

Intermediate Organic Chemistry. The lecture component will include spectroscopy, synthetic methodology, functional group transformation, moderately advanced synthetic strategies and mechanistic analyses of reactions. Lab will introduce moderately advanced techniques such as the use of gases, handling of moisture sensitive compounds, chromatographic separations and applied spectroscopic product characterization.

### Goals

Objectives: This class has two objectives. It seeks to provide a bridge between introductory and advanced organic chemistry. The class is meant to carry ideas learned in Chem 230 and 232 to a higher (but not truly advanced) level. The second objective is to master standard laboratory techniques and to achieve the ability to conduct laboratory work with minimal supervision.

### Requirements

Prerequisites: Students must have passed Chem 231/233 or equivalent.

Text: Hoffman's *Organic Chemistry: An Intermediate Text*, and any material covered by hand-outs. Useful: Williamson, *Macroscale and Microscale Organic Experiments*. Several reference statements "Organicum" refer to *Organicum; practical handbook of organic chemistry; Becker, Heinz, Addison-Wesley Pub. Co.; 1st English edition; ISBN 020105504X*. This excellent book is expensive and out of print, therefore not required.

Attendance policies: Students are expected to attend all lectures and as much lab time as required to complete their assignments. Slow students may be required to complete experiments outside the regular schedule if they fall behind.

Dress code: To avoid serious injuries to your legs, **do not** wear shorts or sandals in the laboratory. You must wear eye protection **whenever** you are in an active lab. Lab coats are recommended, but optional. Make sure your hairstyle is compatible with a lab environment. If you violate the dress code, you will be sent home to change.

Office hours: Office hours are intended to discuss problems with your schedule, allow you to see your exams, etc., **not** for review. Feel free to discuss any problems you may have with the pre-lab material during the experiment or schedule review time with me. Due to the small number of participants, I am generally willing to meet with you outside office hours unless I have other obligations.

## **Methods of Evaluation**

Tests: There will be two exams, a mid-term and a final, two hrs each. Exact dates will be determined by experiment progress (tentatively: Sep. 24, Nov. 19).

Readings: You are expected to read your handouts for the day's experiment **in advance**. Be prepared to answer questions related to the handouts. I may randomly pick a student to give a 1-2 min presentation about his/her planned experiment, followed by a brief question/answer session. Poor performance will result in point losses.

Homework assignments: Lab reports are due one week after each experiment and have to be completed at home if necessary. I expect all lab reports to be entered into a carbon copy lab notebook. In addition, I will hand out 4 assignments, e.g. you may have to find and adapt procedures from the literature, and there will be one safety quiz.

Grading system: Year grades will be determined based on the following:

13 experiments (50 pts each)	650 points*
4 assignments, 1 safety quiz (10 pts each)	50 points
2 exams (100 pts each)	<u>200 points</u>
	900 points total

\*the number of experiments may be modified, resulting in corresponding changes in the number of total points.

Due to a statistically non-representative class size, I will assign grade cut-offs based on my perception of each student's performance, but will provide ample feed-back on each individual's standing upon request (during office hours to ensure privacy).

Make-up policy: If students miss an experiment they are expected to make up the experiment at their earliest convenience, outside the regular schedule. I will provide a lab key if necessary.

Cheating: You will face severe penalties if you cheat. Any cited procedures should be clearly identified as such, including their source. Each individual will have to create his/her lab reports in his/her own words. Direct copying without source citation or copying of another person's lab report, most importantly the faking of results is scientific plagiarism!

Posting of exam results and answer keys: Due to the small number of students, I will discuss exam results and grades on an individual basis, during office hours.

Mid-term grades: ULM requires that I post mid-term grades for you by October 3.

**Come prepared when we meet again! By next time, you should a) follow the dress code, b) have your goggles or safety glasses, c) be prepared for your safety quiz, d) bring your lab note book, e) bring your lab text book.**