

**CHE 310-L-013**  
**ORGANIC CHEMISTRY LABORATORY**  
Fall 2005                      Wed; 2-5                      Room SC 465

Prerequisite: CHE 121 and 121L  
Pre or Co-requisite: CHE 310 Lecture

Note carefully: students who withdraw from 310 lecture must withdraw from 310-lab; if they do not, they will be withdrawn from the lab by the instructor.

Dr. Robert J. Kempton  
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Phone: 572-5116; E-Mail: [Kempton@NKU.edu](mailto:Kempton@NKU.edu)  
Office Hours: *Open-door policy and by appointment*

Text: Mohrig *et al.* "Techniques in Organic Chemistry"  
"Organic Chemistry I Laboratory Supplement" (Pages must be downloaded from the dept's website and studied **before** the lab starts: [www.nku.edu/~chemistry/che310l.htm](http://www.nku.edu/~chemistry/che310l.htm))

Equipment: Safety glasses  
Laboratory research notebook

**LABORATORY SCHEDULE**

<b>DATE</b>	<b>EXPERIMENT</b>
08/24	Check in / Melting Point
08/31	Recrystallization
09/07	Unknown-Purification and Identification
09/14	Fractional Distillation
09/21	Acid-Base Extraction
09/28	Thin-Layer Chromatography
10/05	Column Chromatography
10/12	Nuclear Magnetic Resonance
10/19	MID-TERM EXAM
10/26	Molecular Modeling
11/02	Nucleophilic Substitution (S <sub>N</sub> 1)
11/09	Bromination/Stereochemistry
11/16	Dehydrohalogenation
11/23	Thanksgiving; no lab
11/30	Carbocation Rearrangement
12/07	FINAL EXAM (covers entire semester) / Check out

Note: During quizzes and exams calculators may be used, but not shared.

**All students are governed by the NKU student Honor Code. Among other things, copying information (answers to questions, mechanisms, etc.) from a current or former student's lab report is a violation of the Honor Code.**

## **THERE ARE NO MAKE-UP LABS**

### **ORGANIC LABS GRADING SYSTEM**

It is expected that each student enter the lab with a very good understanding of the theory behind the lab experiment and sufficient knowledge of the procedure so that he or she can begin working immediately.

Each student is also expected to know how to set up and perform the basic techniques in organic chemistry lab (melting points, distillation, extraction, and recrystallization). The instructor will, in general, not answer questions about these techniques **once they have been performed**.

The pre-lab lecture will consist of a brief review of the theory behind the experiment, safety features, and changes in the experimental procedure, if any.

Grading of your lab reports will be based on your write-ups (completeness, clarity, brevity, sentence structure, style, and format), observations, conclusions, calculations, and yield and purity of products. These lab report grades will represent about 45% of your final grade. A written mid-term and final exam will be given. These tests will represent about 40% of your final grade. Pre-lab quizzes will be given occasionally. They will represent about 15% of your final grade. In the past, students who have obtained greater than *ca.* 83% of the total points in the lab have received an **A**; between *ca.* 71-83% **B**; between *ca.* 56-71% **C**; less than *ca.* 56% **D**; less than *ca.* 48% **F**.

**Note: Lab notebook write-ups are due at the end of every lab; lab supplement data sheets are due at very beginning of the following lab period.**

**This Syllabus Subject to Change**