



CHE 310 L – 012
Organic Chemistry Laboratory I
Fall 2004

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- Text:** Experiments in Organic Chemistry, J.S. Nimitz
Organic Chemistry Laboratory Supplement
- Equipment** Safety Glasses
Laboratory Notebook
- Class Times:** 1:40 pm - 4:40 pm, Tuesday. SC 461
- Office Hours:** M 9:00 – 10:00 am; T 10:00 – 11:00 am; F 10:00 – 11:00 am
By appointment. I have an open door policy.
- Objectives:**
- 1) To learn the fundamental techniques used to study organic molecules in the laboratory.
 - 2) To develop the skills used by organic chemists to purify and identify organic compounds.
 - 3) To gain a better understanding of how basic chemistry principles are derived through experimentation.
 - 4) To gain hands on experience in how organic molecules are synthesized.
 - 5) To prepare students as best as possible for the future use of their laboratory skills (*e.g.* chemistry, biochemistry, biology, pharmacology, medical school)
- Expectations:** 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.
- Students are expected to have an outline of the day's procedure written their notebook before they arrive to class. With the exception of looking up data tables, students will not be allowed to use their textbook during the class period. Students who do not come prepared for class represent a safety hazard and will not be allowed to perform the experiment.
- The pre-lab lecture will consist of a very brief review of the theory behind the experiment, safety features, and changes in the experimental procedure, if any.

Lab reports: Lab reports will be due at the beginning of the lab period following the experiment. If you need to take a melting point and / or take the mass of a compound to finish your report, then this data will be due one hour after the beginning of the period. You will record the data and make the appropriate calculations in your lab notebook, before completing the supplement.

Homework: Short written homework assignments may be given during the semester.

Quizzes Unannounced quizzes may be given at the beginning of each class

Grading Policy: Grading of your lab reports will be based on your write-ups (completeness, clarity, brevity, sentence structure, style, accuracy, and format), observations, conclusions, calculations, yield, and purity of products.

Assignment	Value	Grading Scale		
		Date	Grade	Score
Reports	45 %		A	83.0 – 100 %
Quizzes & HW	7 %		B	71.0 – 82.9 %
Mid-term exam	16 %	Oct 12, 2004	C	56.0 – 70.9 %
Final Exam	32 %	Dec 7, 2004	D	40.0 – 55.9 %
			F	0 – 39.9 %

Final Exam: Tuesday December 7, 2004. 1:40 pm
The final will be cumulative for the semester.

Missed labs: **No make-up labs will be given.** In the event you are not able to perform an experiment in class on the day it is scheduled, it may be possible to complete the experiment in another section where the same experiment is being performed at its normally scheduled time. This requires written pre-approval from the instructor where you wish to do the lab, and Dr. Russell. You may still pass the class if you miss one experiment. Students missing more than one experiment will receive an "I" if they complete the remaining work necessary to pass the class.

Regrades: Any corrections in grading must be addressed within 48 hours of when an assignment, report or exam is returned in class. Regrades must be requested in writing using the on-line regrade form. *You must clearly explain all errors and provide support for why your answer is correct.* Requests not giving sufficient explanations will be dismissed. When a regrade is requested, the entire exam or homework may be regraded.

**Academic
integrity**

The work in this course is subject to The *Northern Kentucky University Student Honor code*. The Honor Code is a commitment to the highest degree of ethical integrity in academic conduct, a commitment that, individually and collectively, the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain and academic advantage over fellow students or avoid academic requirements.

Cheating is an extremely serious offense and will not be tolerated! Any unauthorized assistance on an examination or homework is considered cheating. Copying information (answers to questions, mechanisms, calculations, etc.) from a current or former student's lab report is considered cheating. Allowing others to copy your information is also a violation of the Honor Code. In accordance with the *Code of Student Rights and Responsibilities*, faculty members have the right to determine actions to be taken when a student is caught cheating. Penalties for cheating can range from but are not limited to scores of zero on individual assignments or exams to expulsion from the University and does include failure of the course.

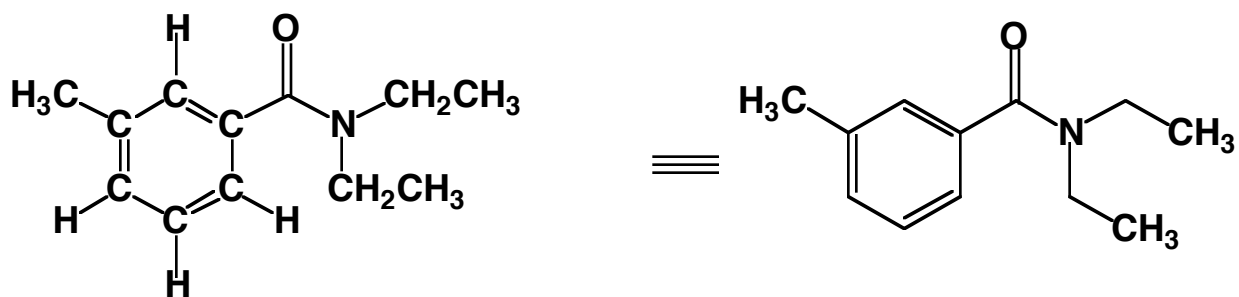
Faculty members reserve the right to dismiss or to have removed a disruptive student from their classrooms.

Students are responsible for reading and understanding all items on the syllabus. Any items not understood must be brought to the attention of the instructor within the first two weeks of class.

Note: All items on this syllabus are subject to change

SCHEDULE OF EXPERIMENTS & EXAMS

Week	Date	Experiment	Expt #	Pages
1	August 24, 2004	Check in & Melting Point	1	1 - 28
2	August 31, 2004	Recrystallization	1.1	1 - 30
3	September 7, 2004	Unknown Purification & Identification	1.3	1 - 33
4	September 14, 2004	Fractional Distillation	2.1	33 – 34
5	September 21, 2004	Acid – Base Extraction	3.1	45 – 61
6	September 28, 2004	Thin Layer Chromatography	4.1	63 – 71
7	Rocktober 5, 2004	Column Chromatography	Supplement	
8	Rocktober 12, 2004	*** Mid-term Exam ***		
9	Rocktober 19, 2004	No Class – Fall Break		
10	Rocktober 26, 2004	Molecular Modeling	Supplement	
11	November 2, 2004	No Class – Election Day		
12	November 9, 2004	Nucleophilic Substitutions (S_N1)	11.1	120 – 124
13	November 16, 2004	Bromination & Stereochemistry	8.1	95 – 101
14	November 23, 2004	Dehydrohalogenation	Supplement	
15	November 30, 2004	Carbocation Rearrangement	23.2	246 – 252
16	December 7, 2004	*** Final Exam ***		



DEET is the common name for *N,N*-Diethyl-*m*-toluamide
The active ingredient in most insect repellants applied to the skin.