Chemistry 230-001, Spring 2003
Organic Chemistry
Course Description and Syllabus

Class Sessions: MWF 9:00 – 9:50, CP-139
Professor: Mark S. Meier
Office: CP-341
Office phone: 257-3837
Email: meier@uky.edu
Office Hours (CP-341): Mondays 11:00 - 11:50 AM, Tuesdays 11:00-11:50 AM, Help Sessions: (CP-345) Wednesdays 4:00 to 4:50
2. A set of molecular models (any of countless varieties) is highly recommended.

Course Content
CHE 230 is the first course of a two-term sequence. This course covers the fundamentals of structure and reactivity of organic compounds, and on how these translate into the chemical and physical behavior that makes organic chemistry ubiquitous. We will also cover selected spectroscopic methods for the study of organic compounds. At the conclusion of this course, students who have learned the material will be able to discuss the 3 dimensional structure of most classes of organic compounds, to discuss the reactivity of alkanes, alkenes, and alkynes (and their derivatives) toward acids, bases, nucleophiles, and electrophiles, as well as to describe how the structure of organic compounds is assigned using mass spectrometry, IR spectroscopy, and nuclear magnetic resonance spectroscopy. In addition, successful students will be able to demonstrate an understanding of the reactivity of organic compounds through reaction mechanisms and to explain the kinetic and thermodynamic underpinnings of each mechanistic step.

Grading
The course will be graded on the basis of four cumulative, 50 minute exams, the first 3 of which will be given during the regular class period. There will be no other graded assignments, but it is strongly advised that all students work problems from the book in order to test their own understanding of the course material.

February 12 First exam (25% of final grade)
March 12 Second exam (25% of final grade)
April 14 (MONDAY) Third hour exam (25% of final grade)
May 8 Fourth hour exam (25% of final grade)

If for some reason you have an academic conflict with any of these exam times, you must notify me within the first two weeks of the term. In accordance with University procedures, you must provide written notice, and this must be done for each exam with which you have a conflict.

A seating chart will be posted before each exam. Please arrive at your assigned room and be in your seat at least 5 minutes before the beginning of the exams, which are given in class. Be prepared to show your student identification (or other photo ID) at the exams. The exams will be equally weighted - each will comprise 25% of the final grade. The exams will
emphasize material covered since the last exam, but since new chemistry builds on old chemistry, command of the older material will be necessary. **All exams are cumulative.** Copies of previous years exams are posted on the CHE 230 web page: (http://www.chem.uky.edu/courses/che230).

If you believe an exam was misgraded, mark the number of the problem in question on the front page of the exam and return it to me within one week from the day the exam was returned. Exams can be returned for regrading for one week from the day the exam was available to be picked up. Changing an answer then asking that the problem be regraded is cheating and will result in a **minimum** penalty of an E in the course, in accord with University rules. Selected exams will be photocopied in order to minimize the temptation for this. All graded work must be entirely your own. Attempts to claim another person’s work as your own, in any form or under any guise, is forbidden and will be dealt with in accord with University regulations.

You will be permitted to bring molecular models to the exams. No other material can be used during examinations unless I have authorized the class to use those specific materials, and all students must be given the same opportunity to use those same materials. If you have questions about this policy, see me immediately.

Grades will be assigned using the following scheme (some people call this ‘the curve’):

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%-100%</td>
<td>A</td>
</tr>
<tr>
<td>70-79%</td>
<td>B</td>
</tr>
<tr>
<td>60-69%</td>
<td>C</td>
</tr>
<tr>
<td>50-59%</td>
<td>D</td>
</tr>
<tr>
<td>&lt;50%</td>
<td>E</td>
</tr>
</tbody>
</table>

I reserve the right to lower these cutoffs in order to raise the overall grade point average of the class. NOTE: This has been necessary only on very rare occasions, so adjustment of the cutoffs (or additional “curving”) is very unlikely. I will not raise the cutoffs and lower grades.

**Makeup Exams**

Students who have academic conflicts (i.e. conflicts with University classes, participation in athletic teams, etc.) will be offered either an alternate exam time or the choice to assign the points from a missed exam to the final exam. Please contact me as soon as possible if you will be unable to attend one of the scheduled examinations. Makeup exams must be completed within one week of the original exam date. If an exam is missed without an excused absence, a ‘0’ will be recorded as the score for that exam. The University Bulletin and the manual “Student Rights and Responsibilities” describe what is a valid excuse for a missed exam. **Please note** – a conflict with a work schedule is **not** a valid University excuse for missing an exam. If you have a job and your employer expects you to be working during one of the exam times, arrange to take time off or arrange for some one else to work your shift for you. **Spring break plans are not a University-approved excuse for missing an exam.**

**Significant Dates**

- January 20: M. L. King Day - no class
- February 5: Last day to drop
- February 12: First hour exam
- March 12: Second hour exam
- March 14: Last day to withdraw
- March 17-21: Spring break
- April 14: Third hour exam
- May 2: Last class
- May 8: Fourth hour exam (10:30 AM)
Heartfelt Advice

1) Attend **every** lecture. You’re paying for it already, and in the lecture will be presented material and novel approaches to topics that do not appear elsewhere. Don’t complain about the cost of tuition if you choose to skip class.

2) **Read** and **think** about each chapter **before** the lecture. No, organic chemistry is not all memorization, but memorization is an important component of learning. If you try to simply memorize without learning to use the information, this course will be extremely frustrating for you. At the same time, there are a number of facts that you are simply expected to know. DO NOT FALL BEHIND. The course is relentless. Planning to cram before exams doesn’t actually work for most people.

3) Write as you read. Draw out structures and reactions as you read about them in the book or your notes. Any term or concept that is less than completely clear should be reviewed **immediately**, before going further.

4) Get out your model kit and build structures. Be sure you can translate 2-D drawings into 3D structures. Practice drawing common organic structures and be sure you can interpret your own drawings.

5) Work **all** of the problems in the book. Yes, that’s **ALL** the problems. Practice makes perfect. If you want to claim that you’ve learned the material, be prepared to demonstrate your proficiency by solving problems. Before each exam be sure that you can correctly complete lots of problems without looking at the answer book first!

6) Come to my office hours to **ask questions**. I can’t help you through difficult concepts if you don’t come in to ask questions. It helps. **Honest**.

7) Go to your lab TA’s office hours to **ask questions**. If you are in the lab courses (CHE 231), you can use your TA as a source of help.

8) **Review** your general chemistry book and notes. Chemistry is cumulative. If you have learned the material in your general chemistry course, you will find that organic chemistry is largely an extension of the same basic principles.