Chemistry 232-001, Spring 2006
Organic Chemistry
Course Description and Syllabus

Class Sessions: MWF 12:00 – 12:50, CP-139
Professor: Mark S. Meier
Office: CP-341
Office phone: 257-3837
Email: meier@uky.edu
Office Hours (CP-341): Mondays 4:00 - 4:50 PM, Thursdays 1:00-1:50 PM, Help Sessions: (CP-320) Tuesdays, 5:00 – 5:50, Wednesdays 4:00 to 4:50
2. A set of molecular models (any of countless varieties) is highly recommended.

Course Content
CHE 232 is the second course of a two-term sequence. This course concentrates on the reactivity of different functional groups and structures, and includes the methods for the synthesis of those functional groups and structures. 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 understand the chemistry of multifunctional molecules, the patterns of reactivity needed to design syntheses of molecules, as well as be able 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
Attendance is required. The course will be graded on the basis of four cumulative exams (90%) and electronic homework (ACE, 10%). If you were not registered for ACEOrganic in the fall 2005 semester, please contact me by email for an access code. The percentage of correct answers on ACE will determine the score on the homework component of the grade. It is strongly advised that all students work problems from the book in order to test their own understanding of the course material. Exams will be during class on the following dates (Note the special time for the final exam):

- February 8
- March 8
- April 12
- May 4, 8:30-10:30 PM

First hour exam (20% of final grade)
Second hour exam (20% of final grade)
Third hour exam (20% of final grade)
Final exam (30% of final grade)

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

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 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, written by myself and those written by other faculty members, are posted on the web page: www.chem.uky.edu/courses/che232.

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>
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<tbody>
<tr>
<td>85%-100%</td>
<td>A</td>
</tr>
<tr>
<td>75%-85%</td>
<td>B</td>
</tr>
<tr>
<td>60%-75%</td>
<td>C</td>
</tr>
<tr>
<td>50%-59%</td>
<td>D</td>
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<tr>
<td>&lt;50%</td>
<td>E</td>
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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, Special Needs

Students who have academic conflicts (i.e. conflicts with University classes, participation in athletic teams, etc.) or other valid excuse will be offered an alternate time to take an exam. The University Bulletin and the manual “Student Rights and Responsibilities” describe what is a valid excuse for a missed exam. Please contact me as soon as possible (written notice, minimum of 2 weeks in advance) 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. 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 someone else to work your shift for you. Spring break plans are not a University-approved excuse for missing an exam. If you need special accommodations for exams, you must present written documentation within the first 2 weeks of the course.

Significant Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>January 16</td>
<td>MLK Day (no classes)</td>
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<tr>
<td>February 1</td>
<td>Last day to drop</td>
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<td>February 8</td>
<td>First hour exam</td>
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<td>March 8</td>
<td>Second hour exam</td>
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<tr>
<td>March 10</td>
<td>Last day to withdraw</td>
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<td>March 13-17</td>
<td>Spring break</td>
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<tr>
<td>April 12</td>
<td>Third hour exam</td>
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<tr>
<td>April 28</td>
<td>Last class</td>
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<tr>
<td>May 4</td>
<td>Fourth hour exam (8:30 PM)</td>
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Severe Weather Information

The University follows specific procedures in the event of severe weather. These procedures are available at http://www.uky.edu/PR/News/severe_weather.htm. Announcements regarding the cancellation of classes or a delayed opening will normally be made by 6 AM through the local news media. The most up-to-date information will be available from the UK Infoline at 257-5684, UK TV (cable channel 16), or the UK Web site at http://www.uky.edu.

Please be advised that the University usually remains open under all but the most extreme conditions. If the University is open, classes and exams will be held as scheduled.

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 difficulty of the course or 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. Cramming 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 of 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! Use the older exams to test yourself and to focus your preparation for the exams.

6) Come to my office hours to ask questions. I can’t help you through difficult topics 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 or CHE 233), you can use your TA as a source of help.

8) Review your CHE 230 notes. Chemistry is cumulative, and you are not permitted to forget anything.