Lectures: Monday, Wednesday, Friday 10:00 am – 10:50 am, Malott 1003
Instructor: Prof. Michael D. Clift
Office: 4023 Malott Hall (directly across from the teaching labs)
Email: mclift@ku.edu
Office Hours: Monday and Friday, 9:00 am – 9:55 am or by appointment

Course Description: This is the second course in a two-semester sequence in organic chemistry for students with strong records in previous chemistry courses and who are planning or considering a major in chemistry or in a chemistry-related field. The content is similar to that of CHEM 335 but with coverage in greater depth and more emphasis on developing problem-solving skills. Prerequisite: CHEM 330 or CHEM 380 and membership in the University Honors Program, or consent of instructor.
Satisfies: N Natural Science (N), Honors

Course Materials:
Optional Materials: Molecular models – available in the KU bookstore.

Course Evaluation: Grades will be based on ten weekly quizzes, three mid-term exams and one comprehensive final exam. Unless otherwise stated, all exams and quizzes are closed book, closed notes. Molecular models and calculators can be used (no laptops, tablets or phones). Exams must be taken at the indicated time unless prior written approval is obtained from the instructor at least two weeks before the exam. Approximately 12 quizzes (15 points each) will be given throughout the semester; each student’s top 10 scores will count towards his/her final grade. No makeup exams/quizzes will be offered.

Weekly Quizzes: Fridays, arrive on time – quizzes will end at 10:10 am (150 total points, 15% of final grade)
Mid-Term Exam 1: Monday, February 8th, 5:50 pm – 7:50 pm (200 points, 20% of final grade, Malott 2001)
Mid-Term Exam 2: Monday, March 7th, 5:50 pm – 7:50 pm (200 points, 20% of final grade, Malott 2001)
Mid-Term Exam 3: Monday, April 11th, 5:50 pm – 7:50 pm (200 points, 20% of final grade, Malott 2001)
Final Exam: Friday, May 13th, 7:30 am – 10:00 am (250 points, 25% of final grade, Malott 1003)

Final Letter Grades: The following grading scale will be used, with rounding (i.e. A/A- cutoff will be 92.5%). A small curve may be applied if the class average warrants.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tr>
<td>93% - 100%</td>
<td>A</td>
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<tr>
<td>90% - 92%</td>
<td>A-</td>
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<tr>
<td>87% - 89%</td>
<td>B+</td>
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<tr>
<td>83% - 86%</td>
<td>B</td>
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<td>80% - 82%</td>
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<td>77% - 79%</td>
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<td>73% - 76%</td>
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<td>70% - 72%</td>
<td>C-</td>
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<td>63% - 66%</td>
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<td>60% - 62%</td>
<td>D-</td>
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<tr>
<td>Below 60%</td>
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Problem Solving: The better your problem solving skills, the better you will do in the course. As you study the text, work the relevant in-chapter problems to be sure you understand the material. A list of recommended end-of-chapter problems from each chapter in the textbook will be posted to Blackboard. These problems will not be collected or graded; however, working through these problems is a prerequisite for success.

Blackboard: http://courseware.ku.edu, The Blackboard site will contain the course syllabus, handouts, homework assignments and other problem assignments. We will also use Blackboard to post announcements. If you have problems accessing the web site call the Blackboard help center at 864-0200. You must have a KU email address or register your email address with KU to utilize the web site and to receive email messages. If you need to register your email address or obtain a KU address for the first time, go to http://www.ku.edu/computing/services.
Course Content: The course outline is shown below. Selected sections will be covered from each chapter listed. Note that this is a rough outline and the content may change in order to best meet the needs of those participating in this class.

Chapter 12: Reactions of Alkenes
Chapter 13: Alkynes
Chapter 14: Delocalized Pi-Systems
Chapter 15: Benzene and Aromaticity
Chapter 16: Electrophilic Attack on Derivatives of Benzene
Chapter 17: Aldehydes and Ketones
Chapter 18: Enols, Enolates, and the Aldol Condensation
Chapter 19: Carboxylic Acids
Chapter 20: Carboxylic Acid Derivatives
Chapter 23: Ester Enolates and the Claisen Condensation
Chapter 21: Amines and their Derivatives
Chapter 22: Chemistry of Benzene substituents
Chapter 24: Carbohydrates
Chapter 26: Amino Acids, Peptides, Proteins, and Nucleic Acids

Disability Accommodations: The Academic Achievement & Access Center (AAAC) coordinates accommodations and services for all KU students who are eligible. If you have a disability for which you wish to request accommodations and have not contacted the AAAC, please do so as soon as possible. Their office is located in 22 Strong Hall; their phone number is 785-864-4064 (V/TTY).

Academic Misconduct: Cheating, or the appearance thereof, including giving or receiving help on an exam, looking at another student’s paper while taking an exam, falsifying exam papers, using unauthorized materials, notes, crib sheets, or the equivalent, will not be tolerated and will be dealt with in accordance with University regulations (see http://www2.ku.edu/~unigov/usrr.html#art2sect6). The Chemistry Department reserves the right to make and keep copies of individual examination papers.

How to Study for Organic Chemistry: Success in organic chemistry requires mastering a substantial body of factual information and the use of this information in the solution of problems. You should plan a minimum of three hours of study and problem solving outside of class for every hour of lecture. To study productively, you should carefully read the textbook, marking key items to be learned on each page. As you study the text and your lecture notes, train your hand to draw the structures of molecules and write equations and mechanisms. Build models of various structures and learn to translate these three dimensional structures onto paper. Get a large quantity of scratch paper and write, write, write!

1. Come to class every day, take careful notes, and read and rewrite the notes within 24 hours. Your notes are an important resource for study. Numerous studies have shown that lecture material loses its value if it is not reviewed shortly after class.

2. Keep up. Organic chemistry is cumulative. This seems obvious, but failing to do so is the major reason for not doing well in the course.

3. Study actively. Write, write, write! Explain concepts to members of your study group. Work out strategies for solving various types of problems. Writing mechanisms is crucial to success in organic chemistry.

4. Work as many problems as possible; this is the only way to learn organic chemistry. Even though the end-of-chapter problems are not graded, working through them is critical!

5. Keep a calendar. Know when exams are and plan your time so that you are not trying to learn material the night before the exam.

6. Be well rested before an exam. Because of the cumulative nature of organic chemistry it is not possible to "pull an all-nighter" and do well on exams.