CH 242 Sections A and B (Spring, 2015): Organic Chemistry
Syllabus and Course Information

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Course Web Page: web.colby.edu/dmthamat/teaching/ch242

Materials:
(a) "Organic Chemistry" by Maitland Jones, Jr. and Steven A. Fleming, 5th Edition, Norton and Co., (Required)
(b) "Organic Chemistry Study Guide and Solutions Manual" by Maitland Jones, Jr., Henry L. Gingrich and Steven A. Fleming, Norton and Co., (Recommended)
(c) "ChemBioDraw" software from CambridgeSoft. (Required). For instructions to obtain a free copy, please go to http://www.colby.edu/chemistry/ChemDraw.html

Lectures:
Section A (MWF 9:00 – 9:50 am) and Section B (MWF 10:00 – 10:50 am). It is essential that you attend the lectures, participate in class, and take good notes. These notes, and corresponding segments from the text, will be important resources to learn the material and prepare for exams.

Laboratory:
You have been assigned to one of four sections. Your overall laboratory performance will be worth 20% of the course grade. Additional details are given in the accompanying handout.

Office Hours:
As announced in class, open door, and by appointment. If I am not in my office, please check my research lab (Keyes 204/206) or the X-ray Room (Keyes 307).

Problem Sets:
Problem sets will be posted on the course web page each weekend. The corresponding answer keys will be available online the following weekend. These problem sets will not be collected and graded. However, please resist the urge to look up answers without working out the problems first. Selected problems at the end of chapters will be also assigned for practice.

Grading:
There will be three “hour” exams outside of the regular class period and a cumulative two-hour final exam. Make-up exams are not available. All exams are closed-book and model sets may not be used during exams. Exam dates and point values are given below.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Points</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>100</td>
<td>Monday, March 2</td>
<td>5:30 – 6:30 pm</td>
</tr>
<tr>
<td>Exam 2</td>
<td>100</td>
<td>Wednesday, April 8</td>
<td>5:30 – 6:30 pm</td>
</tr>
<tr>
<td>Exam 3</td>
<td>100</td>
<td>Tuesday, May 5</td>
<td>5:30 – 6:30 pm</td>
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<tr>
<td>Final</td>
<td>150</td>
<td>Saturday, May 16</td>
<td>9:00 am – 12:00 noon</td>
</tr>
<tr>
<td>Lab</td>
<td>100</td>
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Your total score in the course (out of 500 points) will be calculated using the two methods given below. The formula that gives you the higher score will determine your course grade.

Formula I: Two “best” hour exam scores + half of remaining hour exam score + final exam score + lab score.

Formula II: All three hour exam scores + two-thirds of final exam score + lab score.

In addition, please note that there is an incentive program that rewards you for improving your performance from one exam to the next. Thus, if you score higher in exam 2 than exam 1, your exam 1 score will be revised upward to the average of the two exam scores. For example, if you score 60/100 in exam 1 and 90/100 in exam 2, your exam 1 score will be raised from 60 to 75 points (the average of 60 and 90). You will be also allowed to propagate this formula. For example, an improved score in the final exam can raise your score in the third exam which can then raise your score in the second and so on …. You will not be penalized, however, if your score in an exam is less than the previous one.
The chemistry department has a policy regarding attendance, missed exams, and academic honesty that will apply to this course. Please familiarize yourself with these policies that are posted on the at [http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/](http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/)

Please see Das Thamattoor as soon as possible if you have any questions about the course or lab material. Help is also available at the Chemistry Help Center, staffed by experienced and knowledgeable chemistry majors, which is open Monday through Thursday in Keyes 104 from 7:30 - 9:30 pm. These students will help answer your questions and work problems with you. If you need additional help beyond what is provided by the Help Center and office hours, please consult with Das Thamattoor and Ms. Lisa Miller (Keyes 310; lmmiller@colby.edu) to request a tutor. Free tutorial help will be provided to you if we determine that it is necessary. The number of tutors available is limited and we will try to assign them according to the level of student need. Room 142 in the Olin science library also has a number of organic chemistry texts, relevant to lecture and laboratory, available for your use. This room is well suited for group study and is equipped with a blackboard that you may use to work out problems. Old exams and answer keys will be posted on the course web page.

The approximate order of topics to be covered is given below.

- More Additions to $\pi$ bonds
- Radicals
- Dienes and Conjugation
- Aromaticity
- Substitution Reactions of Aromatic Compounds
- Carbonyl Chemistry I: Addition Reactions
- Carboxylic Acids
- Carboxylic Acid Derivatives
- Carbonyl Chemistry II: Reactions at the $\alpha$-Position
- Carbohydrates

CH242 builds upon, and extends, the material covered in CH241. Thus, a sound knowledge of the concepts and reactions discussed last semester is vital to your success in CH242. This semester there will be a heavy emphasis on reaction mechanisms, spectroscopy, and syntheses. Furthermore, the ability to draw flawless Lewis structures and push arrows, among other things, will be indispensable skills. Recognizing patterns, and applying them, rather than rote memorization, will be the key to your success in this course.

Perseverance also will be an important ingredient for success. Stay involved and keep a positive attitude. You are more likely to learn the material if you can find ways to enjoy it. Yes, it is a challenging course but there’s no reason why you can’t master the material. It can, in fact, be a lot of fun if you give it a chance.

Welcome to the course, and good luck!