

Tuesday, Thursday -- 8:00 - 9:45 am – Media Theater M110

<i>Instructor</i>	Joseph P. Konopelski 344 Physical Sciences Building (PSB), 9-4676, <a href="mailto:joek@chemistry.ucsc.edu">joek@chemistry.ucsc.edu</a> Office hours: M 2-3:30 pm; T & Th – 1:00-2:00 pm
<i>Teaching Assistants</i>	Caitlin Binder, 398 PSB, (45)9-3479, <a href="mailto:binder@chemistry.ucsc.edu">binder@chemistry.ucsc.edu</a> Terra Haddad, 398 PSB, (45)9-3479, <a href="mailto:haddad@chemistry.ucsc.edu">haddad@chemistry.ucsc.edu</a> Laura Sanchez, 341 PSB, (45)9-5056, <a href="mailto:lsanchez@chemistry.ucsc.edu">lsanchez@chemistry.ucsc.edu</a> Stepahnie Stepp, 379 PSB, (45)9-4669, <a href="mailto:stepp@chemistry.ucsc.edu">stepp@chemistry.ucsc.edu</a> <b>All TA office hours will be held in 341 PSB</b>
<i>MSI Tutor</i>	Michelle Ma, <a href="mailto:michellema2@gmail.com">michellema2@gmail.com</a>
<i>ACE Chemistry</i>	Nancy Cox-Konopelski, 199 Baskin, (45)9-5283; <a href="mailto:nancyck@ucsc.edu">nancyck@ucsc.edu</a>
<i>Texts</i>	1) McMurry, <i>Organic Chemistry, 7<sup>th</sup> Edition</i> . 2) McMurry, <i>Study Guide and Solutions Manual and for McMurry's Organic Chemistry, 7<sup>th</sup> Edition</i> .  <b>These texts are required.</b> An alternative may be found at <a href="http://www.iChapters.com">www.iChapters.com</a> , “an online store developed by Thomson [the publisher of McMurry’s book].” You should be able to purchase the print text, an electronic version of the textbook or individual electronic chapters as needed. A molecular model kit is <i>extremely</i> recommended.
<i>Lectures</i>	September 27 October 2, 4, 9, 11, 16, 18, 23, 25, <b>30</b> November 1, 6, 8, 13, 15, <b>20</b> , 27, 29 [ <i>Holidays</i> : November 22, 23] December 4, 6
<i>Discussion Sections</i>	Are <b>MANDATORY</b> . Each discussion section will be 1 hour and 10 minutes in length. Attendance and participation in discussion sections will be considered in your final evaluation. Occasional quizzes will be given.
<i>Homework</i>	Will be collected and graded.
<i>Web page</i>	<a href="http://www.chemistry.ucsc.edu/courses/chem108a01/index.html">http://www.chemistry.ucsc.edu/courses/chem108a01/index.html</a> Check this spot for a copy of this syllabus, old exams (with and without answers), and other stuff.
<i>Exams</i>	<b>October 30 and November 20, 2006</b> Each exam will be 1 hour and 45 minutes in length
<i>Final Exam</i>	<b>Monday, December 10, 2006; 8-11 AM</b>

*Tentative Lecture Schedule*

<i>Lecture Number</i>	<i>Topic</i>	<i>Assignment</i>
1 (9/27)	Structure and Bonding	Chapter 1
2 (10/2)	Acids and Bases, Resonance, Organic Compounds	Chapter 2
3 (10/4)	Alkanes and Cycloalkanes	Chapter 3
4 (10/9)	Stereochemistry I	Chapter 4
5 (10/11)	Organic Reactions	Chapter 5
6 (10/16)	Alkenes I	Chapter 6
7-8 (10/18-23)	Alkenes II	Chapter 7
9 (10/25)	Alkynes	Chapter 8
10 (10/30)	<b><i>First Exam October 30, 2006 - Chapters 1-7</i></b>	
11-12 (11/1-6)	Stereochemistry II	Chapter 9
13 (11/8)	Alkyl Halides	Chapter 10
14-15 (11/13-15)	Reactions of Alkyl Halides	Chapter 11
16 (11/20)	<b><i>Second Exam November 20, 2004 - Chapters 8-11</i></b>	
17 (11/27)	Dienes, Resonance, and UV	Chapter 14
18 (11/29)	Benzene and Aromaticity	Chapter 15
19-20 (12/4-6)	Chemistry of Aromatic Compounds	Chapter 16

**GROUND RULES**

Attendance at all exams is mandatory. No makeup exams will be given. If you will not be at an exam, you must notify me prior to the start of the exam by phone or email (preferred).

The midterm exams are each worth 100 points, while the final is worth 150 points. Homework and section participation are worth 100 points, for a total of 450 points. In order to pass this class, you need a total of at least 50% of the maximum number of points; i.e., 225 points. **You are allowed to bring your model kits to all exams.**

**If you have a disability that interferes with your learning I encourage you to talk with me about it on a confidential basis so that we might collectively devise a strategy to overcome whatever barriers might exist.**

**If you are going to be absent from campus for one of the exams I need to know ASAP.**

**Please turn off all cell phones during lecture and exams. No electronic devices will be needed or allowed during exams.**

The following are problems from the chapters we will be covering this quarter. **Homework is due on the indicated date by 5 pm in your TA's mailbox. I and the TA's are at your disposal during our office hours to discuss these homework problems and any other problems or questions you may have with the course.**

Chapter	Problems
1	1.3, 1.4, 1.6-1.10, 1.12-1.14, 1.15b, 1.16a & d, 1.18, 1.20, 1.25-1.28, 1.30, 1.32, 1.33, 1.38, 1.44, 1.46-1.47, 1.49-1.51. <b>due 10/5</b>
2	2.2-2.6, 2.8, 2.10, 2.11, 2.13-2.15, 2.17, 2.18, 2.24, 2.26, 2.27, 2.32, 2.33, 2.36, 2.38, 2.39, 2.46, 2.47, 2.53, 2.54. <b>due 10/5</b>
3	3.1, 3.5, 3.7-3.10, 3.11a,b, 3.12a,d, 3.15, 3.17, 3.27, 3.30, 3.32, 3.34, 3.44, 3.45, 3.47, 3.49. <b>due 10/12</b>
4	4.2, 4.3, 4.5, 4.8, 4.11, 4.12, 4.14, 4.18, 4.19, 4.26, 4.31, 4.34-4.38, 4.49, 4.52, 4.54. <b>due 10/12</b>
5	5.1, 5.2, 5.4, 5.5, 5.7, 5.8, 5.10, 5.14, 5.16, 5.20, 5.21, 5.24, 5.29, 5.31, 5.36, 5.37. <b>due 10/19</b>
6	6.1, 6.2, 6.5, 6.7, 6.10, 6.11, 6.14, 6.15, 6.18, 6.24, 6.29a,c,e, 6.30, 6.34, 6.37, 6.48-6.50. <b>due 10/19</b>
7	7.1, 7.2, 7.4, 7.6, 7.7-7.10, 7.12-7.15, 7.19, 7.24, 7.27, 7.30, 7.32, 7.40, 7.43, 7.46, 7.49, 7.51, 7.54. <b>due 10/26</b>
8	8.3-8.6, 8.8, 8.9, 8.11, 8.12c,e,f, 8.13b,d, 8.19b,d,f,h, 8.21, 8.22, 8.25-8.27, 8.29, 8.31, 8.34, 8.36a,c, 8.39, 8.42. <b>due 11/2</b>
9	9.2, 9.3, 9.7, 9.9, 9.11-9.13, 9.15, 9.19, 9.21, 9.23, 9.26, 9.43, 9.44, 9.46, 9.50, 9.56, 9.57, 9.61, 9.64, 9.66, 9.73. <b>due 11/9</b>
10	10.2, 10.3, 10.5, 10.6, 10.9, 10.10, 10.11a, 10.13, 10.18, 10.21, 10.23, 10.25, 10.27, 10.29, 10.37. <b>due 11/16</b>
11	11.1, 11.4-11.6, 11.8, 11.9, 11.12, 11.14, 11.15, 11.17, 11.19, 11.20, 11.25, 11.29, 11.35, 11.37, 11.40, 11.41, 11.45, 11.51, 11.56, 11.58, 11.64-11.66, 11.68. <b>due Monday 11/19</b>
14	14.2, 14.5-14.8, 14.21, 14.26, 14.27, 14.31, 14.32, 14.35, 14.40, 14.44, 14.48, 14.50, 14.57. <b>due 11/30</b>
15	15.1, 15.3, 15.5, 15.7, 15.9, 15.11, 15.19a,c,e, 15.24, 15.26, 15.27, 15.31, 15.37, 15.40. <b>due 12/7</b>
16	16.1, 16.4-16.6, 16.9, 16.10, 16.13, 16.15, 16.17, 16.19, 16.21, 16.23, 16.24, 16.29, 16.33, 16.36, 16.41, 16.43, 16.45, 16.58, 16.69. <b>due 12/10 @ exam</b>

## SUCCESSFUL STRATEGIES FOR ORGANIC CHEMISTRY

Over the years of teaching at UCSC I have noticed certain successful strategies employed by students of both the Chem 108 and Chem 112 series.

Organic chemistry is an awesome adventure. You will probably learn more in this course than in almost any other course you have taken thus far, and what you learn will have great relevance to the living world around you. This course will provide you with a solid background that will allow you to go on to advance study in any molecular science. Equally important, the course will attempt to teach you how to (1) master a large body of information, (2) reason deductively and inductively, and (3) apply information from a variety of sources to solve complex problems (an important skill for science and non-science majors alike). Mastering the subject can really be enormously satisfying, regardless of whether you plan to pursue additional science courses or not.

**Understanding** organic chemistry is fairly straightforward – we will approach the basics of organic chemistry in a very logical and systematic way. **Doing** organic chemistry is far more important to your success in this course. For example, you can easily **understand** heart surgery but your patients will expect you to **do** heart surgery completely and successfully. Don't confuse understanding organic with the ability to do organic chemistry. Lecture time will concentrate on the more difficult concepts and important information. However, you will be responsible for working through a good portion of the material on your own outside of class time. In studying, try to look for broad unifying concepts rather than getting lost in the details. The textbook has many "pointers" to help you grasp the main important topics, but you will likely also benefit from making your own written summaries, flow charts and/or flash cards.

1. You should plan on spending *at least* 12-16 hours/week outside on class time on chemistry lecture material. A little chemistry each day is better than a lot at the end of the week. Getting behind in your work is extremely dangerous. Trying to cram for an exam is generally a waste of time. Essentially, learning organic chemistry is similar to learning a new foreign language. Each area of study has its own "grammar" and "sentence structure." Every language instructor I've ever known has talked about the need for study every day. It is the same way with organic chemistry. Unfortunately, at a UC (any of them) the language classes are small and the organic chemistry classes are quite large. This puts much more of the burden on you.
2. Probably the most successful strategy for the study of organic chemistry is to become part of a study group. If you can explain the material to someone else you are well on your way to understanding it yourself. Study groups have a tendency to keep everyone honest; it is harder to "cheat" by looking at the answer book when a friend is at the same table working the problems with you.
3. An excellent strategy for study is to read the material before the lecture. During the lecture you will be able to pay more attention to those topics which were not clear in your initial reading and ask questions accordingly. I have seen many good students take *no* notes during class; they simply listen to the lecture. After the lecture, go back and read the material with a pencil and paper at hand to mark parts that still are not clear and to do the exercises in the text of the book as you come upon them.
4. **Do the problems at the end of the chapter *without* referring to the text or the answer book. This is absolutely crucial!** In this way you are testing your knowledge of the material each week. Problems that you cannot do without referring to the text need to be marked for further study.
5. Lastly, I've never been able to understand why so few students come to office hours. *That time is set aside for you!* Use it!