

**CEM 251: ORGANIC CHEMISTRY I**  
**TUTh 1:00 – 2:20, 138 CHEMISTRY**  
**FALL 2009**

**Instructor:** Professor Jetze Tepe  
*Office:* 510 Chemistry  
*Phone:* 355-9715 ext. 147  
*Email:* [tepe@chemistry.msu.edu](mailto:tepe@chemistry.msu.edu)  
*Office hours:* Friday: 9:30 – 11:30 AM in Room 510 Chemistry  
*Website:* To be announced

**Text:** *Organic Chemistry* by Janice G. Smith, 2<sup>nd</sup> Edition  
*Student Study Guide/Solutions Manual* by Janice G. Smith

**Course Content:** The course will cover common classes of organic compounds including their nomenclature, structure, bonding, reactivity, and spectroscopic characterization. Chemistry 251 is the first part of a two semester sequence covering the most important kinds of organic compounds and the most common organic reactions, with examples of biological and industrial processes involving organic chemistry. It will be necessary for you to learn how to name organic compounds, to draw and understand their structures in two and three dimensions, and to learn how chemical structure and chemical reactivity (reactions) are interrelated.

**Recitations:** In signing up for this course, you have enrolled in a lecture (Tue,Thu) and a recitation section. Recitation time will be devoted to working problems and to discussing lecture material. Lecture exams will be returned and reviewed during recitation. You **must** write your TA's name and section number (**in which you are enrolled**) on every exam or quiz to be sure your grades are properly recorded.

**Problem Sets:** Problems for each chapter will be assigned in class. They will not be collected and graded, however, I strongly suggest that you attempt the problems to gauge your understanding of the material and test your readiness for the exams. I discourage you from looking at the solutions manual without attempting to do the problems. Try to use your text and notes to see if you can solve the problems. Remember, if you are not able to solve the problems, it probably means that you have not understood the subject matter. Go back and read, do not just look up the answer! It is much more beneficial for you to struggle through the problem and learn, as opposed to looking at the solution manual and see how it is done.

**Molecular models** help you visualize molecules in three dimensions. Sets may be purchased at bookstores. Models are optional; you do not need them to get a good grade, but you will probably find them helpful for visualization of molecular structures. Models cannot be used during exams.

**Study Hints:** We urge you to use the study guide that accompanies the Smith textbook.

1.	Organic chemistry in many ways resembles a new language for you, and you cannot avoid quite a bit of memorizing (vocabulary).
2.	To do well, you have to do a lot of writing--write formulas, write equations, so that you can write complex structures quickly. You cannot learn organic chemistry just by reading about it.
3.	The best way to do well is to work problems, as many as you possibly can. We will assign some, but try to do as many others as you possibly can. You may consult other chemistry texts in the library for additional problems.
4.	Attendance at lectures is not required, but experience shows that most people who do not attend regularly will not do well.
5.	Organic chemistry is a cumulative subject. If you get behind at the beginning, you will get lost, because every new topic depends on what went before it. So keep up to date; don't get behind.
6.	Plan on a minimum of 10 hours/week for study outside of class.

**Recitations:** This is your chance to ask the questions you were not able to ask in lecture. Your teaching assistants are a great source of information and help. Attendance is very important if you want to learn organic chemistry. Listening to lecture does not teach you the problem solving skills you need. The goal of recitation is to guide you through problems, answer questions regarding the lectures, and teach you how to *talk* organic chemistry. The following is the list of recitations for this class. It is important that you know the name of your recitation instructor and write it and your section number on all of your quizzes and exams. This will ensure that your scores are properly recorded.

				<u>TA</u>
<b>Section 13</b>	Th	4:10 – 5:00 PM	Rm. 085 Chemistry	Brandon Dutcher
<b>Section 14</b>	Th	4:10 – 5:00 PM	Rm. 281 Chemistry	Camille Watson
<b>Section 15</b>	Tu	11:30 – 12:20 PM	Rm. 183 Chemistry	Brandon Dutcher
<b>Section 16</b>	Tu	4:10 – 5:00 PM	Rm. 183 Chemistry	Camille Watson
<b>Section 17</b>	Th	8:00 – 8:50 AM	Rm. 281 Chemistry	Nicole Hewlett
<b>Section 18</b>	Th	10:20 – 11:10 AM	Rm. 281 Chemistry	Nicole Hewlett
<b>Section 19</b>	Th	11:30 – 12:20 PM	Rm. 281 Chemistry	Brandon Dutcher
<b>Section 20</b>	Th	4:10 – 5:00 PM	Rm. 110 Chemistry	Sarah Marshall
<b>Section 21</b>	Tu	4:10 – 5:00 PM	Rm. 110 Chemistry	Sarah Marshall
<b>Section 22</b>	Tu	3:00 – 3:50 PM	Rm. 283 Chemistry	Sarah Marshall
<b>Section 23</b>	Th	3:00 – 3:50 PM	Rm. 283 Chemistry	Camille Watson
<b>Section 24</b>	Tu	10:20 – 11:10 AM	Rm. 110 Chemistry	Nicole Hewlett
<b>Section 25</b>	Th	9:10 – 10:00 AM	Rm. 283 Chemistry	Nicole Hewlett

**TA Office Hours – Help Rooms 81 & 83 Chemistry:**

**Brandon Dutcher** -- Monday 10:00 to 11:00 AM  
**Sarah Marshall** -- Wednesday 10:00 to 11:00 AM  
**Nicole Hewlett** -- Tuesday 11:30 to 12:30 PM  
**Camille Watson** -- Friday 12:00 to 1:00 PM

**Examinations and Grading:**

**Quizzes:** Five 20-minute quizzes (25 points each) will be given sometime during class time on the following dates:

Quiz #1	September 17	Chapters 1-4
Quiz #2	September 29	Chapters 5 & 6
Quiz #3	October 22	Chapters 8 & 9
Quiz #4	October 29	Chapters 8 & 9 (again)
Quiz #5	December 3	Chapters 13 & 14

**Hourly Exams:** You must take each mid-term exam (100 points) in the lecture.

**Posting of quiz/exam scores:** After the quiz/exam has been graded and recorded, you can check the cemscores site for your grade: <http://cemscores.msu.edu>

To access cemscores throughout the semester, you can bookmark the link.

The cemscores link will be activated after the posting of Quiz 1 grades.

**Final Exam:** The final (200 points), which is all-inclusive, will be given on Wednesday, December 16, 2009, 12:45-2:45 PM. The room locations will be announced during the last week of classes. University rules stipulate that you receive a 0.0 for the course if you do not take the final exam. The scheduling of a makeup for the final exam and the issuing of Incompletes will follow university rules. Final exams will be kept on file until the middle of the following semester and then destroyed. If you wish to check your final exam, you can make an appointment with the course secretary, Nancy Lavrik, ([lavrik@chemistry.msu.edu](mailto:lavrik@chemistry.msu.edu)) at the beginning of the next semester.

**Grades:** Of the 5 quizzes the lowest grade will be dropped. Your grade in this course will come from the sum of 4 quizzes, 2 hourly exams, and the final exam.

**Policy on Missed Exams and Quizzes:** Ordinarily, there will be **no make-ups for scheduled lecture exams and quizzes!**

**Policy on Returning Exams and Regrading:** Exams will be returned **only** during a regularly scheduled recitation meeting following the exam. Any regrading requests must be made to the instructor at that time by means of a note written on the exam and signed by you. No exam, which has left the recitation room in possession of the student will be considered for regrading. When an exam is submitted for regrading, the **entire exam** will be regraded. If you miss your own recitation, you may make arrangements with your TA to pick up your test in another one of his/her regularly scheduled sections.

**Students are not to enter research labs in search of TAs**, since potentially dangerous chemicals and equipment are always present in the Chemistry Building. Also, TA will provide their e-mail address as their only contact information. **Do not call the TA's at home or on their cell phone!**

**Policy on Cheating:** Any student caught cheating will receive a grade of 0.0 for the course. In addition, a letter describing the incident will be sent to the Chair of the Chemistry Department and to the Dean of the student's college.

## TENTATIVE LECTURE AND EXAM SCHEDULE

Date	Topic	Reading Assignment
September 3	Structure and bonding	Chapter 1
September 8	Acids, Bases & Functional Groups	Chapter 2
September 10	"	Chapter 3
September 15	Alkanes	Chapter 4
September 17 (quiz 1)	Stereochemistry	Chapter 5
September 22	Organic reactions	Chapter 6
September 24	" "	Chapter 6
September 29 (quiz 2)	Substitution Reactions	Chapter 7
October 1	" "	Chapter 7
<b>October 6 (Tue)</b>	<b>1<sup>st</sup> Midterm</b>	<b>Chapters 1-7</b>
October 8	Elimination Reactions	Chapter 8
October 13	" "	Chapter 8
October 15	<b>REVIEW</b>	Chapter 7 & 8
October 20	Alcohols, ethers & epoxides	Chapter 9
October 22 (quiz 3)	---	---
October 27	Alcohols, ethers & epoxides	Chapter 9
October 29 (quiz 4)	Alkenes	Chapter 10
November 3	" "	Chapter 10
November 5	Alkynes	Chapter 11
November 10	Oxidation & Reduction	Chapter 12
<b>November 12 (Thur.)</b>	<b>2<sup>nd</sup> Midterm</b>	<b>Chapters 8-12</b>
November 17	MS and IR	Chapter 13
November 19	" "	" "
November 24	NMR	Chapter 14
November 26	- Thanksgiving Holiday -	
December 1	NMR	Chapter 14
December 3 (quiz 5)	Radicals	Chapter 15
December 8	Diene and UV	Chapter 16
December 10	<b>TENTATIVE REVIEW</b>	open

**FINAL EXAM: WED., DECEMBER 16, 2009, 12:45-2:45 PM, COMPREHENSIVE. 1281 ANTHONY HALL.**

CEM 251 Course Secretary: Nancy Lavrik - [lavrik@chemistry.msu.edu](mailto:lavrik@chemistry.msu.edu)

For changes in recitation sections, course adds/drops visit the General Chemistry Office, Room 185 Chemistry.