

### COURSE INTRODUCTION, SCHEDULE, AND GENERAL INFORMATION

Ross Weatherman, Ph.D.

email: [weatherm@rose-hulman.edu](mailto:weatherm@rose-hulman.edu)

office: Moench FL 108 (phone: 8718)

lab: M210

#### Required Material

- **Lecture Text:** M. Loudon, *Organic Chemistry*, 6th ed., 2009, Roberts & Company Publishers
- **Sapling Learning Subscription**, described in more detail later
- **Model Kit:** You should buy an organic molecular model kit or check one out from the library. A small kit is sufficient and can be bought online for \$10-20. You will be able to use models during quizzes and exams.

#### Grading:

<i>Point Breakdown</i>		<i>Grade Breakdown</i>			
Problem Sets/Quizzes	350 points	A	720-800	C	560-619
Class Exams (3)	300 points	B+	700-719	D+	540-559
<u>Comprehensive Final</u>	<u>150 points</u>	B	640-655	D	480-499
Total points	800 points	C+	620-639	F	< 479

#### Course Information

- A weekly course outline with important tasks, dates and deliverables will be handed out at the beginning of each course week.
- This course will actively use the Moodle course software. All course materials will be posted on it. Any pre-made lecture material will be posted on Moodle the night before lecture and my lecture notes will be uploaded onto Moodle following lecture.
- A list of daily reading assignments and recommended problems from the book will be posted online for each exam. You will be responsible for material assigned in the book but not covered in lecture. None of the problems will be graded, but will serve as good practice for quizzes and exams. The answers for the purple problems are included in a study guide that you can buy from any online bookseller.
- This classroom uses a flipped lecture structure. For each major topic, there will be a pre-lecture prep module. These activities will involve short videos and multiple choice questions after each video. These assignments will be due before the topic is covered in lecture. Lecture time will then be focused on problem solving.
- **You will be assigned to a study group. This group will be asked to sit next to each other and work together on group study exercises during lecture. The group will also turn in a group study exercise 3 times during the quarter. There will also be a confidential evaluation of the participation of other people in the group that will translate to 20% of the assignment grade.**
- Short problem-solving podcasts will be posted on Moodle for each major lecture topic as well as for the keys to all the quizzes and exams. The optional videos will not feature any new material, but will feature me working through a few end-of-chapter problems.
- A set of learning objectives for each exam will be posted online. All questions from the exams will cover topics listed in the objectives
- Homework assignments will be taken up as soon as class begins on the due date. If you must miss a class, assignment, etc. notify me [preferably] before the absence, but at the very least as soon as possible.
- Attendance in all lecture sessions, but I will not take formal attendance at lecture. Please try to sit in the same seat every day.

## Use of Technology in the Classroom

Your computer will be used to run Spartan in some homework assignments. You will be trained in using the software during the first week of lab. Access to YouTube outside of lecture is also required.

## Electronic Homework Assignments through Sapling Learning

We will be using Sapling Learning to do homework assignments. You will be invited to create an account at <http://saplinglearning.com/>. The homework system is designed to provide feedback as you answer the questions. For incorrect answers, a small percentage will be deducted and then hints will be given for you to answer again. We have used this program for the past few years and the students strongly supported using it again. It seemed to increase student performance on homework problems by at least half a letter grade.

*Ground Rules:* Deadlines for required problems will be provided for each week. There will also be some recommended problems each week that you can do at your convenience. You must do your own work.

Here is the link the instructions for signing up:

<http://www2.saplinglearning.com/help/higher-education-us/accounts-and-registration>

Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments. During sign up - and throughout the term - if you have any technical problems or grading issues, send an email to [support@saplinglearning.com](mailto:support@saplinglearning.com) explaining the issue. The Sapling support team is almost always more able (and faster) to resolve issues than your instructor and TAs.

To optimize your Sapling Learning experience, please keep your internet browser and Flash player up to date and minimize the use of RAM-intensive programs/websites while using Sapling Learning.

## Academic and Professional Integrity

The methods used in this course presuppose that students will uphold the highest standards of professional and academic integrity. Definitions and punishments for academic misconduct are described in the Student handbook

## Disability Accommodation

If you require disability accommodations, contact The Learning Center (contact by phone: (812) 877-8876, Campus mail: box # 82, and Email: [learningcenter@rose-hulman.edu](mailto:learningcenter@rose-hulman.edu)) to make initial arrangements and then contact the instructor. Exams taken in the Learning Center must be taken the same day as the exam or earlier.

## CHEM 251: Organic Chemistry I

Date	Week	Topic <sup>a</sup>
Sept 1 Sept 2	0	Chapter 1: Bonding and Structure
Sept 6 Sept 8 Sept 9	1	Chapter 2: Alkanes
Sept 13 Sept 15 Sept 16	2	Chapter 12: IR Spectroscopy
Sept 20 Sept 22 Sept 23	3	<b>EXAM I (chapters 1,2,12)</b> Chapter 3: Chemical Reactivity and Mechanism
Sept 27 Sept 29 Sept 30	4	Chapter 4: Alkenes Chapter 5: Alkene Addition Reactions
Oct 4 Oct 6 Oct 7	5	<b>NO CLASS – FALL BREAK</b> <b>NO CLASS – FALL BREAK</b>
Oct 11 Oct 13 Oct 14	6	
Oct 18 Oct 20 Oct 21	7	<b>EXAM II (chapters 3-5)</b> Chapter 6: Stereochemistry
Oct 25 Oct 27 Oct 28	8	Chapter 7: Cyclic Compounds Chapter 9: Alkyl Halides Reactions
Nov 1 Nov 3 Nov 4	9	<b>EXAM III (chapters 6-9.5)</b>
Nov 8 Nov 10 Nov 11	10	Course Wrap-up
<b>Nov 16</b>		<b>FINAL EXAM WEEK</b>

<sup>a</sup>M. Loudon, *Organic Chemistry*, 6<sup>th</sup> Edition