

**CHEMISTRY 343, Fall 2015**  
1:20-2:10 PM, MWF, Room 105 Psychology

Professor: Sam Gellman

Office: 7132 Chemistry Building

E-mail: [gellman@chem.wisc.edu](mailto:gellman@chem.wisc.edu)

Open Office: 2:15-3:15 PM Wednesdays and 2:15-3:00 Fridays (or by appointment)

Discussion session led by Prof. Gellman (optional): 5:00 PM Thursdays, location = B371 Chemistry  
(first session: 10 Sept).

Course web site: <https://www.chem.wisc.edu/chem343-gellman/index>

I. TEXT

"Organic Chemistry," 6<sup>th</sup> edition, Loudon  
(Strongly recommended: study guide and molecular models)

II. EXAMS

- A. Three exams *during lecture time* (locations TBA) (100 pts each)  
Monday 5 October  
Wednesday 28 October  
Wednesday 2 December

(Note: **There will be no make-up exams.**)

- B. Final exam (cumulative; 200 pts)  
Tuesday 22 December, 7:45 AM (location TBA)

III. GRADING

Course grades will be assigned on the basis of a 550 point total, using a curve that leads to a distribution similar to those of recent Chemistry 343 sections. In addition to 500 points from exams, students can earn up to 50 points from attending and participating in assigned Discussion Sections.

IV. PROBLEMS

Students should do all problems recommended from the text (recommendations offered during lectures). Written answers will not be collected or graded, but problems can be discussed at the review sessions, during office hours or during discussion sessions. Only by doing these problems, and then evaluating your answers, can you master the material in this course.

V. DISCUSSION SESSIONS LED BY TEACHING ASSISTANTS

These TA-led sessions are mandatory. Teaching assistants will review materials and answer questions. There will be occasional quizzes. Grading will be explained by the TA (50 pts).

## RECOMMENDED STUDY HABITS

1. Study regularly and often (every day, if possible). This course covers a large amount of material, and many of the concepts are challenging. Success is most likely for students who are methodical in their study habits; "cramming" before exams is usually ineffective. Most students find that the material becomes more difficult toward the end of the semester, so one should not become complacent if the early material comes easily (this trend continues in Chemistry 345).

2. Take notes during lectures, and recopy those notes within 24 hours. Many important points slip by before you can record them during the class, but this information remains in your short-term memory. Recopying gives you the opportunity to retrieve this information, and the process cements your grasp of the points made in the lecture.

3. Read the chapter before the lecture; prior familiarity will enhance your understanding of the topics covered. There is not time for all important material to be presented in lecture, and some key points will be left for the text to explain.

4. Write out the answers to problems from the text **before** you look at the printed solutions. It is easy to look at a problem, think for a moment, look at the printed solution, and then tell yourself, "oh yes, I knew that." This is the path to disaster. Doing your best to solve the recommended problems, and then carefully checking your work against the answer key, is crucial for success.

Reviewing lecture notes and the text will make the material familiar, but such familiarity does not guarantee the intellectual mastery that is required to solve new problems (e.g., on exams). The only way to acquire such mastery (i.e., the only way to learn organic chemistry) is by working problems. The only way to know whether you can truly solve the recommended problems is by carefully checking your written answers against the solutions manual (and, as necessary, by identifying the sources of your errors). This process takes time; there is no shortcut to the understanding that is our goal. A student who cannot do the recommended problems in the textbook is likely to have difficulties on exams.

5. A set of sample exams (from previous years) is available on the course web site, and these should be considered carefully. Try these exams before looking at the keys. Answer keys to this year's exams will be posted when the graded exams are returned.

6. Use molecular models regularly, especially early in the course. This subject requires an ability to think in three dimensions. The drawings we use to describe organic molecules are two-dimensional, and students must be able to translate those flat images into three dimensions in their minds. You will learn to make this translation by working with models.

7. General Perspective. Each student should be mindful of two main goals in this course: (1) to develop a solid grasp of organic chemistry, and (2) to learn how to master a challenging intellectual discipline that requires both understanding of a complex conceptual framework and memorization of specific facts. Intrinsic interest in organic chemistry varies widely among students, but every student should be attracted to the second goal. If you can master organic chemistry, then you will have developed learning strategies that will serve you well in many other areas. Use this course to hone your learning skills; the strategies that work best for you may differ from those that are most successful for other students.

**(Note: It would be useful to review this sheet periodically.)**

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**Professor Gellman; M W F; Fall 2015**

TENTATIVE Syllabus

2 September	Chap. 1	26 October	
4 September		28 October - EXAM #2	
9 September		30 October	Chap. 8
11 September	Chap. 2	2 November	
14 September		4 November	Chap. 9
16 September	Chap. 3	6 November	
18 September		9 November	
21 September	Chap. 4	11 November	
23 September		13 November	
25 September		16 November	Chap. 10
28 September		18 November	
30 September		20 November	Chap. 11
2 October	Chap. 5	23 November	
5 October - EXAM #1		25 November	
7 October		27 November - THANKSGIVING RECESS	
9 October		30 November	Chap. 14
12 October		2 December - EXAM #3	
14 October	Chap. 6	4 December	
16 October		7 December	
19 October	Chap. 7	9 December	Chap. 15
21 October		11 December	
23 October		14 December	