

**CHEM 2451  
ORGANIC CHEMISTRY**

**WINTER QUARTER, 2004**

**Instructor:** Joseph M. Hornback  
**Office:** 232 S.G. Mudd Building  
**Phone:** (303) 871-2981  
**Email:** jhornbac@du.edu

**Text:** "Organic Chemistry", by Joseph M. Hornback

**Home Page:** [www.du.edu/~jhornbac/orgpage.html](http://www.du.edu/~jhornbac/orgpage.html)

**Problem Sessions:** There is no formal recitation associated with this class. There will be no weekly quizzes. Each week there will be a problem session on Tuesday at 8:00 AM. During this session the instructor will go over the homework problems and answer any questions you have about them or the previous week's lecture. Attendance at this session is optional, but if you are having trouble understanding something, try to come to the help session. If you have a conflict, make an appointment with the instructor.

**Homework:** In the lecture outline you will find a set of homework problems assigned for each chapter and the dates when these assignments are due. Working these problems is the best way to learn the material and to prepare for the exams since the exam problems will be similar to the homework problems. Working the problems also tells you whether you really understand the material or not.

**It is important to keep up with the material as it is covered in class.** Read your book and work the appropriate problems soon after the material is covered in class. If you fall behind, you will make the class much more difficult for yourself.

**Exams:** There will be three 50 min. exams during the quarter and a cumulative final exam, each worth 200 points. If your final exam score is higher than one of your other exam scores, that exam score will be dropped and your final will count double. **There will be no make-up exams.** If you miss an exam, for any reason, it will have to count as the dropped exam.

**Grading:** Your final grade will be based on a maximum of 880 points, distributed as follows: homework problems (8 sets at 10 points/set), 80 points; hour exams and final exam, 800 points.

**CHEM 2451  
ORGANIC CHEMISTRY  
WINTER, 2004  
Tentative Lecture Outline**

<b>DATE</b>	<b>TOPIC</b>	<b>PROBLEMS</b>
Jan. 5	Chapter 1 A Simple Model for Chemical Bonds	Read pp. 1 - 25. Problems: 1 - 17, 19 - 21, 23, 24, 26, 35, 36 (due 1/9/04).
Jan. 7	Chapter 2 Organic Compounds: A First Look	Read pp. 29 - 43; 45; 50 - 53. Problems: 1 - 7, 9, 11, 15 - 22, 24, 25, 26, 36, 37 (due 1/16/04).
Jan. 9	continue Chapter 2	
Jan. 12	Chapter 3 Orbitals and Bonding	Read pp. 59 - 98. Problems: 1 - 18, 20, 21, 23 - 26, 30, 38, 39 (due 1/26/04).
Jan. 14	continue Chapter 3	
Jan. 16	continue Chapter 3	
Jan. 19	No class	
Jan. 21	continue Chapter 3	
Jan. 23	Chapter 4 Proton Transfer: A Simple Reaction	Read pp. 105 - 134. Problems: 1 - 8, 9bc, 10, 11, 12b, 13, 14, 15bc, 16 - 18, 19bc, 20, 21, 23 - 26, 29 - 32, 34 - 37 ( due 2/2/04).
Jan. 26	continue Chapter 4	
Jan. 28	continue Chapter 4	
Jan. 30	Chapter 5 Functional Groups and Nomenclature I	Read pp. 147 - 178. Problems: 1, 2bc, 3bc, 4bcd, 5, 6b, 7 - 11, 12bcd, 13 - 25, 26a, 28 - 31 (due 2/9/04).
Feb. 2	continue Chapter 5	
Feb. 4	<b>EXAM 1</b>	Chapters 1, 2, 3, and 4.

Feb. 6	Chapter 6 Stereochemistry	Read pp. 183 - 250. Problems: 1 - 3, 4abd, 5 - 7, 9 - 13, 14bcd, 15 - 18, 19bcd, 20, 23 - 26, 27bcde, 28, 29bc, 30 - 32, 34 - 44, 46 - 48, 52, 54 (due 2/25/04).
Feb. 9	continue Chapter 6	
Feb. 11	continue Chapter 6	
Feb. 13	continue Chapter 6	
Feb. 16	continue Chapter 6	
Feb. 18	continue Chapter 6	
Feb. 20	continue Chapter 6	
Feb. 23	Chapter 7 Nucleophilic Substitution Reactions	Read pp. 257 - 300. Problems: 1 - 5, 6ac, 7 - 10, 11bcd, 12 - 14, 15bcd, 16bdefgh, 17- 30, 40, 50, 51 (due 3/8/04).
Feb. 25	<b>EXAM 2</b>	Chapters 5 and 6
Feb. 27	continue Chapter 7	
Mar. 1	continue Chapter 7	
Mar. 3	continue Chapter 7	
Mar. 5	Chapter 8 Elimination Reactions	Read pp. 309 - 322; 326 - 339. Problems: 1, 2, 3bc, 4 - 6, 7bcd, 8, 10abc, 11, 12, 13bcde, 14cde, 15acdeg, 16acdeghijklm, 17, 18, 22 - 26 (due 3/12/04).
Mar. 8	continue Chapter 8	
Mar. 10	<b>EXAM 3</b>	Chapters 7 and 8
Mar. 12	<b>FINAL EXAM</b> <b>7:00 - 8:45</b>	Cumulative