Chemistry 124 Fall 2019, Organic Chemistry Lecture II

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Recommended Texts: 1. *Organic Chemistry*, 10th edition, by T.W. Graham Solomons and Craig B. Fryhle 2. *Organic Chemistry As A Second Language: Second Semester Topics*, by David R. Klein (from Amazon.com). 3. *ACS Organic Chemistry Exams – The Official Guide.*

Course Description: Continuation of the introduction of basic principals of organic chemistry, including nomenclature, properties, and reactions of various classes of organic compounds. The ability to recognize classes of organic molecules, to predict reaction products, to suggest synthetic approaches, and to understand reaction mechanisms will be emphasized.

Course prerequisites: Completion of Chemistry 24 with a grade of C- or better. **NOTE**: a grade of C- in Chem 24 indicates a **MINIMAL** knowledge of the basics, therefore is **NOT** a recommended level of understanding in order to attempt Chem 124.

Learning Objectives: Students will be able to recognize and name compounds from various classes of organic compounds, and to understand the unique properties, reactions, and methods of identifying these compounds. Students will be expected to predict the products of various reactions, suggest reactants to accomplish various chemical transformations and to understand and draw the mechanism by which reactions take place. Instrumental methods for identifying chemical structure will also be emphasized.

Grading:

Homework (5 pts each)	25
Quizzes (10 pts each)	100
Exams (125 pts each)	375
Final	200
Total	700 pts

Letter grades are assigned based on a range of: A to A- = 90% and above, B+ to B- = 89-80%, C+ to C- = 79-70%, D to D- = 69-60%, F = Below 59%.

Homework Assignments will be made every 3 weeks and students will be expected to work all required problems. Problems assigned will be from within the book.

Quizzes will be given on Fridays (on weeks when there are no midterms). On Thanksgiving Week, the quiz will be given on Wednesday. There will be 10 quizzes given this session (please see schedule). ***There are no make-up quizzes and no quizzes will be dropped.***

Exams are given based on the general schedule listed below. (Dates may alter depending upon the pace of the class). ***No make-up exams will be given. One exam score can be replaced by the grade on the final exam. (Grade on the final exam cannot replace a missed midterm or a quiz).***

The final will be a cumulative, multiple-choice, standardized exam based on the American Chemical Society Organic Chemistry exam. **It will cover material from both semesters of lecture**.

Attendance: Attendance in the lecture is not mandatory, but is **absolutely, positively, wholeheartedly, emphatically recommended!!!**

Tentative Lecture Schedule: The material covered this semester cannot be understood by simply attending lecture. You must read the chapters in advance of the lectures and do practice problems outside of class or you will fall behind. This schedule is ***TENTATIVE***, and therefore subject to change based upon the needs of the class. **Notice that the pace of this class is much faster than that of Chem 24. Remember this is an UPPER DIVISION class, and requires more time and energy than a lower division class. DO NOT assume you can read three chapters in one evening and take a test on the material the next day.**

Week of:	Monday	Wednesday	Friday
8/26	**Ch. 9-***NMR*	**Ch. 9-***NMR*	**Ch. 9-***NMR*
9/2	**NO CLASS**	**Ch. 9-***NMR*	**Ch. 9-***NMR* **Q1 (10 points)**
9/9	**Ch. 10-***Radical Rxns.*	.**Ch. 11-***Alcohols & Ethers* **Ch. 21-** *Phenols/Aryl*	**Ch. 11-***Alcohols & Ethers* **Ch. 21-** *Phenols/Aryl Halides* **Q2 (10 points)**
9/16	.**Ch. 11-***Alcohols & Ethers* **Ch. 21-** *Phenols/Aryl*	.**Ch. 11-***Alcohols & Ethers* **Ch. 21-** *Phenols/Aryl*	**Ch. 11-***Alcohols & Ethers* **Ch. 21-** *Phenols/Aryl* **Q3 (10 points)**
9/23	**Ch. 12-***Alcohols from C=O Compounds*	**Ch. 12-***Alcohols from C=O Compounds*	**Exam 1**
9/30	**Ch. 13-***Conjugation/UV*	**Ch. 13-***Conjugation/UV*	**Ch. 13-***Conjugation/UV* **Q4 (10 points)**
10/7	**Ch. 14-***Aromatic Compounds*	**Ch. 15-***Rxns. of Aromatics* **Ch. 21-** *Phenols/Aryl Halides*	**Ch. 15-***Rxns. of Aromatics* **Ch. 21-** *Phenols/Aryl Halides* **Q5 (10 points)**
10/14	**Ch. 15-***Rxns. of Aromatics* **Ch. 21-** *Phenols/Aryl Halides*	**Ch. 15-***Rxns. of Aromatics* **Ch. 21-** *Phenols/Aryl Halides*	**Ch. 15-***Rxns. of Aromatics* **Ch. 21-** *Phenols/Aryl Halides* **Q6 (10 points)**
10/21	**Ch. 16-***Aldehydes/Ketones*	**Ch. 16-***Aldehydes/Ketones*	**Exam 2**
10/28	**Ch. 16-***Aldehydes/Ketones* .	**Ch. 16-***Aldehydes/Ketones*	**Ch. 18-***α-Substitution* **Q7 (10 points)**
11/4	**Ch. 18-***α-Substitution*	**Ch. 18-***α-Substitution*	**Ch. 18-***α-Substitution* **Ch. 17-***Carbox. Acids/Derivs.* **Q8 (10 points)**
11/11	**NO CLASS**	**Ch. 17-***Carbox. Acids/Derivs.*	**Ch. 17-***Carbox. Acids/Derivs.* **Q9 (10 points)**
11/18	**Ch. 17-***Carbox. Acids/Derivs.*	**Exam 3**	**Ch. 19-***Condensation*
11/25	**Ch. 19-***Condensation*	**Ch. 19-***Condensation* **Q10 (10 points)**	**NO CLASS**
12/2	**Ch. 20-***Amines*	**REVIEW**	**REVIEW**
12/9	**Final 8:00 – 10:00 am**		

Help: Since everything in organic chemistry builds up from the same foundation, not understanding the basics will mean not understanding anything based upon it. **GET YOUR QUESTIONS ANSWERED IMMEDIATELY or you will very quickly get lost**.

Study Tips: Always read the chapters and **your lecture notes**. Many students have found FLASH CARDS and re-writing lecture notes to be helpful.

Cheating: ***Cheating in any form is not tolerated in this class!!!!*** ***A student caught cheating will fail this course.*** Cheating includes copying from another student's paper, using extra materials during testing, programming data into a calculator, having other people take tests for you, altering exams after they have been graded, etc.

Electronic Devices: As a matter of courtesy to your instructor and to your fellow students, you are asked to turn off all pagers, cell phones, etc. during class. The use of calculators, cell phones, and other electronic devises are expressly forbidden in the classroom during examinations.

Accommodations: Students with disabilities requiring special help or accommodations should see the instructor as soon as possible.