

Chemistry 20481 – Basic Organic Chemistry I – Fall 2008 (Section 600, Call #17947)

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Dr. Earley's Schedule				
	M	T	W	R
9:30-12:20pm		Org. Lab		
12:00-1:00pm	Office Hrs.		Office Hrs.	
1:00-1:50pm	Intro. Organic	Office Hrs.	Intro. Organic	Office Hrs.
2:00-2:50pm	Basic Organic	Basic Organic	Basic Organic	Basic Organic
3:00-4:00pm	Office Hrs.	Office Hrs.	Office Hrs.	
4:00-5:00pm				
5:00-5:30pm	Office Hrs.		Office Hrs.	
5:30-6:45pm	Chem. World		Chem. World	
7:00-9:50pm	Chem. World Lab			

Additional office hours available by appointment

Class Schedule		
2:00-2:50pm	MTWR	317 MH

Texts

- Required: *Organic Chemistry*, by Janice Smith; McGraw-Hill, 2008; 2nd Edition.
- Suggested: Any type of molecular model kit.

Prerequisites

Students are expected to have successfully completed the equivalent of one year of college-level General Chemistry, which will typically be CHEM 10060 and 10061.

Course Description

This course is the first semester of a two semester sequence designed to provide a solid background in the fundamentals of organic chemistry, with an emphasis of topics of relevance to biochemistry. It should be noted that this course does NOT satisfy the requirements for B.S. Chemistry majors (who are required to take CHEM 30481), but is intended for students majoring in biology, nutrition, B.A. chemistry program, and other related disciplines.

Because many students are only required to take this first semester, we will not be progressing through the book in order, but will skip significant amounts of material so that we can cover more topics directly related to biochemistry. During this semester, several important organic functional groups are introduced, fundamental reaction chemistry of these groups is covered, basic chemical principles (such as stereochemistry) are covered, and the curved arrow formalism is developed to explain reaction mechanisms. Spectroscopy (mass spectrometry, infrared and ultraviolet spectroscopy, and NMR) will NOT be covered in the lecture portion of this course, but instead will be covered in CHEM 30475 (Organic Chemistry I Laboratory).

Attendance

Attendance in lecture is optional, but strongly encouraged. Students are responsible for all material presented in lecture whether or not they are present. If you must miss class for an extended period, please see me.

Grading

Grades for this course will be based entirely on the results of quizzes and examinations. Eleven quizzes worth 10 points each will be given, and the scores from the best ten of these will be added (i.e., the lowest quiz score will be dropped). Four regular lecture examinations worth 100 points each and one 150 point cumulative final will also be given. Tentative dates for these quizzes and examinations are given in the lecture outline below. You will be given as much advance notice as possible if any of these dates change. Grades will be based on the scale shown below. Grades will not be curved or arbitrarily adjusted in any manner, and extra credit will not be given.

Grading Scale		
Top ten quizzes	10 x 10 pts	100 pts
Lecture Examinations	4 x 100 pts	400 pts
Cumulative Final	150 pts	150 pts
Total		650 pts

Grade	A	B+	B	B-	C+	C	C-	D	F
%	90-100%	88-89%	82-88%	80-81%	78-79%	72-78%	70-71%	60-70%	<60%
Points	585-650	572-584	533-571	520-532	507-519	468-506	455-467	390-454	<390

Examinations

The format of quizzes and examinations will be varying combinations of multiple choice, true/false, short answer and drawing of chemical structures and reaction mechanisms. For most examinations in organic chemistry, the common types of questions are as follows.

1. Be able to convert between the name and structure of organic compounds.
2. Understand fundamental properties of various functional groups (polarity, acid/base, ...).
3. Predict the major organic product(s) expected from each of the following chemical reactions. You should be able to combine multiple reaction steps.
4. Predict the reasonable routes (reaction conditions and/or starting materials) to synthesize specific molecules.
5. Draw the mechanism for a chemical reaction using the curved arrow formalism.

If you are unable to attend any examination during the regularly scheduled time, you must contact Dr. Earley BEFORE the examination is given to arrange a makeup examination. Makeup examinations must be completed within two weeks of the scheduled examination date, and will only be given for legitimate, documented excuses. All makeup exams must be completed before the beginning of finals week.

The final examination is scheduled for Tuesday, Dec. 11 at 1:00pm. This examination will be cumulative, but will emphasize material covered after the last regular examination. This examination will only cover the lecture portion of the course.

Student email accounts

All students enrolled in the Kent State University system are given a FlashLine account. FlashLine is the internet 'portal' that provides access to e-mail, Web for Students, WebCT/Vista, and a number of other resources. University policy states that email is a valid method of transmitting information to students, so it is important to check your e-mail periodically.

Computers and Internet Usage

I will occasionally make reference to material that is available either locally or on the Internet throughout the semester. All of this material will be accessible using any modern Internet browser (Microsoft Internet Explorer, Netscape Navigator, Mozilla, Firefox, Opera, etc.) While it is not required that you take advantage of this information, some of this material can be quite helpful. The address for my Web site is:

<http://www.personal.kent.edu/~cearley>.

Final Grades and Web for Students

Final grades for students are NOT mailed to students at the end of every semester. The ONLY way for students to find their grades is to look at Web-For-Students (<http://wfs.kent.edu> or through Flashline). I will not be able to give final course grades out over the phone, by e-mail, etc.

Office Hours

Office hours are listed near the top of this syllabus. If you would like to meet with me outside of these normal times, see me before or after class (or call) and we can set up additional time to meet.

Course Withdrawl

If you are considering withdrawing from this or any other course, you are encouraged to consult with a staff member in the Student Services Office, 134 Main Hall. Withdrawal from a course can affect financial aid, student status, or progress within your major. For withdrawal deadlines, please refer to http://www.registrars.kent.edu/home/TermUpdate/sche_adj.htm.

Academic Honesty

Use of the intellectual properties of others without attributing it to them is considered a serious academic offense. Cheating or plagiarism will result in a failing grade for the work or for the entire course. Repeat offenses result in dismissal from the University. University guidelines require that all infractions be reported to the Student Conduct Officer on our campus.

Students with Disabilities

Kent State University recognizes its responsibility for creating an institution atmosphere in which students with disabilities can succeed. In accordance with University Policy Subpart E...104.44, if you have a documented disability, you may request accommodations to obtain equal access in this class. Please contact the disability coordinator on campus, Kelly Kulick in Student Accessibility Services, located in the Student Success Center, lower level of the Campus Center, phone (330)244-5047, or kkulick@kent.edu. After your eligibility for accommodations is determined, you will be given a letter which, when presented to instructors, will help us know best how to assist you.

Campus Security

If you need to reach Campus Security, their phone number is 330-705-0430.

Grievance

The "Kent State University Digest of Rules and Regulations" (available online at <http://www.kent.edu/regional/>) should be consulted for information on grievance procedures, statement of non-discrimination, and additional information on official policies.

Classes Canceled - Campus Closings

Announcements of class cancellations and/or campus closings will be made on the campus home page. In the case of an emergency, weather-related or otherwise, please check the web page at stark.kent.edu for information on the buildings and times of the closing. While information may be broadcast by radio and television, this should be confirmed by the web page, which is the official announcement of the campus and which will be the information used to determine issues related to student attendance, rescheduling of tests, and other concerns.

Recycling

The KSU Stark Campus has made a commitment to recycling. Please take a few seconds to separate your trash. Aluminum cans and plastic and glass bottles may be placed in the blue recycling bins, and all types of paper may be placed in the blue recycling bins. All other waste may be placed in the black, brown or gray trash cans.

Content

In order to emphasize the biological aspects of organic chemistry, we will be skipping over large sections of the textbook that are not critical to the course objectives. The table below outlines the anticipated textbook coverage.

Chapter	Content
1	Structure and Bonding
2	Acids and Bases
3	Organic Molecules and Functional Groups
4	Alkanes
5	Stereochemistry
6	Understanding Organic Reactions
7	Alkyl Halides and Nucleophilic Substitutions
8	Alkyl Halides and Elimination Reactions
9	Alcohols, Ethers, and Epoxides
10	Alkenes
12	Oxidation and Reductions
16	Conjugation, Resonance, and Dienes
17	Benzene and Aromatic Compounds
19	Carboxylic Acids and Acidity
20	Introduction to Carbonyl Chemistry
21	Aldehydes and Ketones: Nucleophilic Addition

Homework

Homework assignments are listed below. Although these will not be collected or graded, it is important that these problems be completed in a timely manner. Students are encouraged to work together on homework. Only selected problems will be worked during lectures, but all of the assigned problems are meant to be a guide to assist in preparation for examinations.

In addition to the problems listed below, problems within the body of each chapter (for example, the first 35 problems in Chapter 1) are worthwhile. All of the following problems are taken from the end of chapter "Problems" in *Organic Chemistry*, by Janice Smith; 2nd Edition, McGraw-Hill.

Chapter	Homework Problems
1	#36, 38, 39, 41, 44, 45, 46, 49, 51, 55, 57, 59, 63, 66, 68, 70, 73, 78, 80
2	#28, 29, 30, 36, 37, 38, 40, 42, 43, 47, 51, 52, 57
3	#17, 18, 20, 21, 23, 26, 27, 28, 32, 33, 39, 42, 43
4	#38, 40, 42, 43, 44, 47, 49, 51, 54, 57, 59, 62, 64, 69
5	#33, 35, 37, 42, 43, 46, 48, 49, 58, 59
6	#23, 26abc, 27, 29, 35, 39, 41, 42, 46, 48
7	#41, 42, 45, 47, 48, 49, 50, 52, 54, 55, 56, 57, 60, 62, 63, 64, 68, 70, 73, 75
8	#26, 28, 31, 32, 33, 36, 37, 43, 44, 46, 49, 51, 52, 53
9	#38, 40, 42, 43, 44, 45, 48, 50, 54, 56, 59, 62, 64, 67, 70
10	#34, 35, 37, 40, 45, 46, 47, 50, 53, 57, 62, 63
12	#31, 32, 33, 37, 38, 43
16	#29, 30, 35, 38, 40, 43, 47, 48, 57
17	#25, 26, 29, 30, 33, 39, 41
19	#29, 33, 35, 37, 38, 41, 46
20	#37, 39, 40, 47, 48, 51, 53, 55, 57, 61, 65
21	#44, 46, 47, 48, 52, 59, 62, 63, 66, 75, 79

Tentative Schedule

(All dates listed below are tentative and are subject to change).

Week Beginning:	M	T	W	R
Aug. 25	Ch. 1	Ch. 1	Ch. 2	Quiz #1, Ch. 2
Sep. 1	Labor Day	Ch. 2	Ch. 3	Quiz #2, Ch. 3
Sep. 8	Ch. 3	Ch. 4	Quiz #3, Ch. 4	Ch. 4
Sep. 15 ^(S)	Ch. 4	Exam #1	Ch. 5	Ch. 5
Sep. 22	Ch. 5	Quiz #4, Ch. 6	Ch. 6	Ch. 6
Sep. 29	Ch. 7	Ch. 7	Ch. 7	Quiz #5, Ch. 8
Oct. 6	Ch. 8	Ch. 8	Ch. 8, Review	Exam #2
Oct. 13	Ch. 9	Ch. 9	Ch. 9	Quiz #6, Ch. 9
Oct. 20	Ch. 10	Ch. 10	Ch. 10	Quiz #7, Ch. 10
Oct. 27 ^(W)	Ch. 12	Ch. 12	Quiz #8, Ch. 12	Ch. 12
Nov. 3	Exam #3	Ch. 16	Ch. 16	Ch. 16
Nov. 10	Quiz #9, Ch. 17	Verteran's Day	Ch. 17	Ch. 19
Nov. 17	Quiz #10, Ch. 19	Ch. 19	Ch. 20	Ch. 20
Nov. 24	Ch. 20	Exam #4	THANKSGIVING BREAK	
Dec. 1	Ch. 21	Ch. 21	Quiz #11, Ch. 21	Review

^(S)Last day to receive any tuition refund is September 19.

^(W)Last day to withdraw from a course is November 1.

Final examination for this class is scheduled for Tuesday, Dec. 9 at 1:00pm.